

1. Project Details

Method Statement Title	MS003 – Excavations and Drainage
Project	Stanhope Road Bridge Replacement
Project Number	3411042
Location	Stanhope Road, London, N6 5DF
Start Date / Duration	February 2024 – November 2024

2. Method Statement Review - (review and approval signatures)

Compiled by	Date	Sign and date
A Niemcinskis	09.01.2024	
Reviewed by	Date	Sign and date
R Carley	16.01.2024	Ryan Carley
Approved for issue	Date	Sign and date
H Soboh	16.01.2024	
Date of change	Reason	Approved by

3. Location of Works

Stanhope Road
Highgate
London
N6 5NB

For Deliveries
Milestone Infrastructure Compound
In College Sports Ground
Corner of Stanhope Road / Avenue Road
Highgate
London
N6 5DF

(what3works – vibrate.loud.modes)

4. Description of work to be undertaken

- Demolition of existing footbridge and abutments
- Installation of new drainage
- Construction of new bridge and associated embankments
- Construction of new accessible ramp access, steps and associated landscape works
- Located on Stanhope Road, Highgate in the London borough of Haringey

The 0.8ha site is linear, along a section of the Parkland Walk, the bridge to be replaced is an existing bridge allowing the Parkland Walk to cross over Stanhope Road.

The main Parkland Walk Path, running west-east is generally flat or gently sloping, but is set on what was a railway embankment, which slopes down steeply north and south to the housing flanking the path as well as steep slopes towards Stanhope Road at the intersection.

The current land use is a local nature reserve and public walkway with grass, shrubbery and predominantly woodland, apart from where the trees have been cleared close to the bridge.

Tree schedules, protection plans and surveys have been provided within the detailed arboricultural report supplied by the principal designer.

The site compound will be located on the corner of St Aloysius College Sports Grounds, adjacent to the Stanhope Road / Avenue Road junction, in close proximity to the bridge site. This area is comprised of a grass field with an edge of trees.

Considerations of surrounding environment

- Highway Environment
- Urban area
- Pedestrian traffic
- Interface with public rights of way
- Proximity to local schools & playgrounds
- Densely populated urban area
- Works adjacent to embankments and ditches.
- Working at height

This method statement will be concerned with the mobilisation to site and initial site activities include:

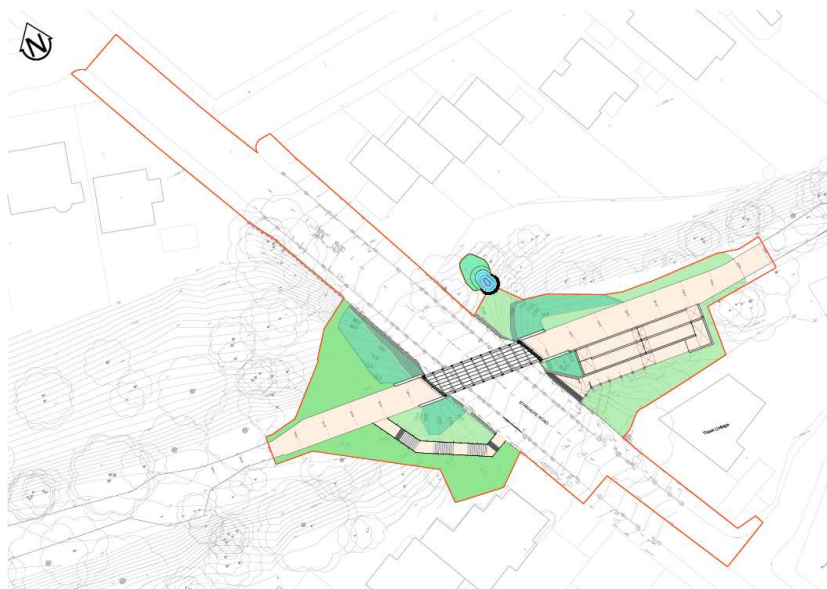
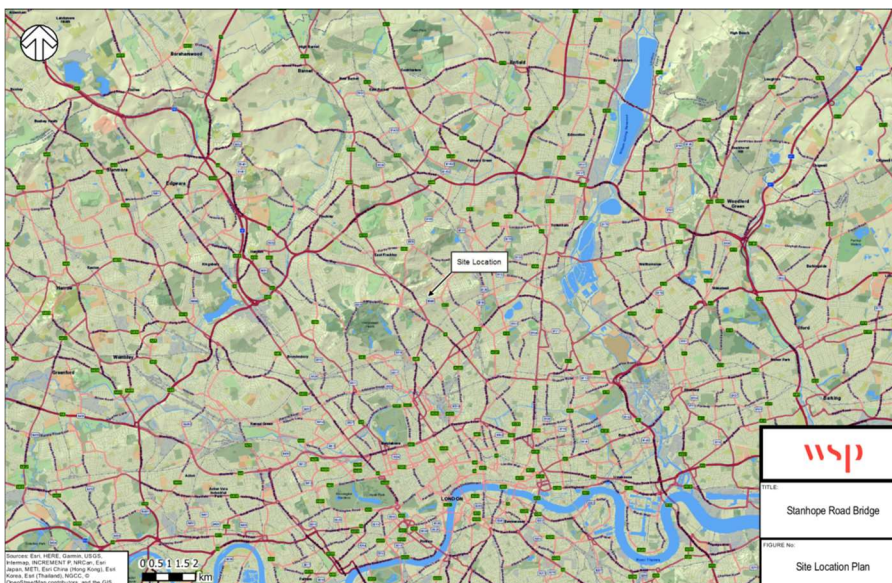
- Permit to break ground procedure
- Excavation operations
- Temporary works for excavations and drainage installations
- Installation of manholes
- Installation of pipelines
- Installation of gullies
- Installation of linear surface drainage channels
- Installation of pond

5. Access to and from the site

The site address is:

Stanhope Road
Highgate
London
N6 5NB

The site is a footbridge crossing the Parkland walk footway across Stanhope Road and the site compound is located a short walk away from the work site location. Below is a drawing showing the site location in North London and a close up of the work site boundary on the Parkland walk / Stanhope Road bridge. The site is a 10minute walk from Highgate Station on the Northern Line.

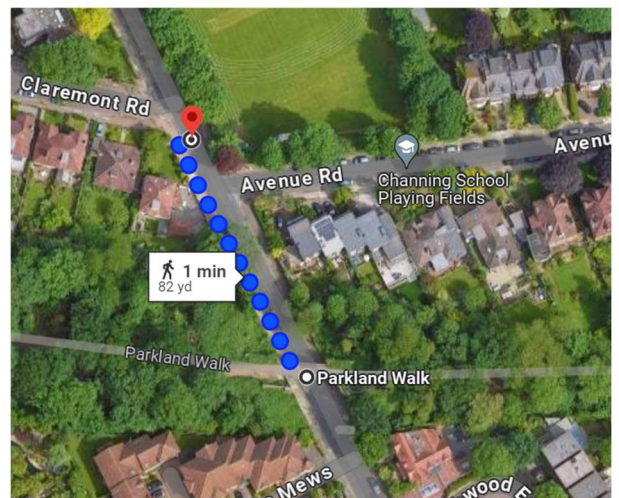
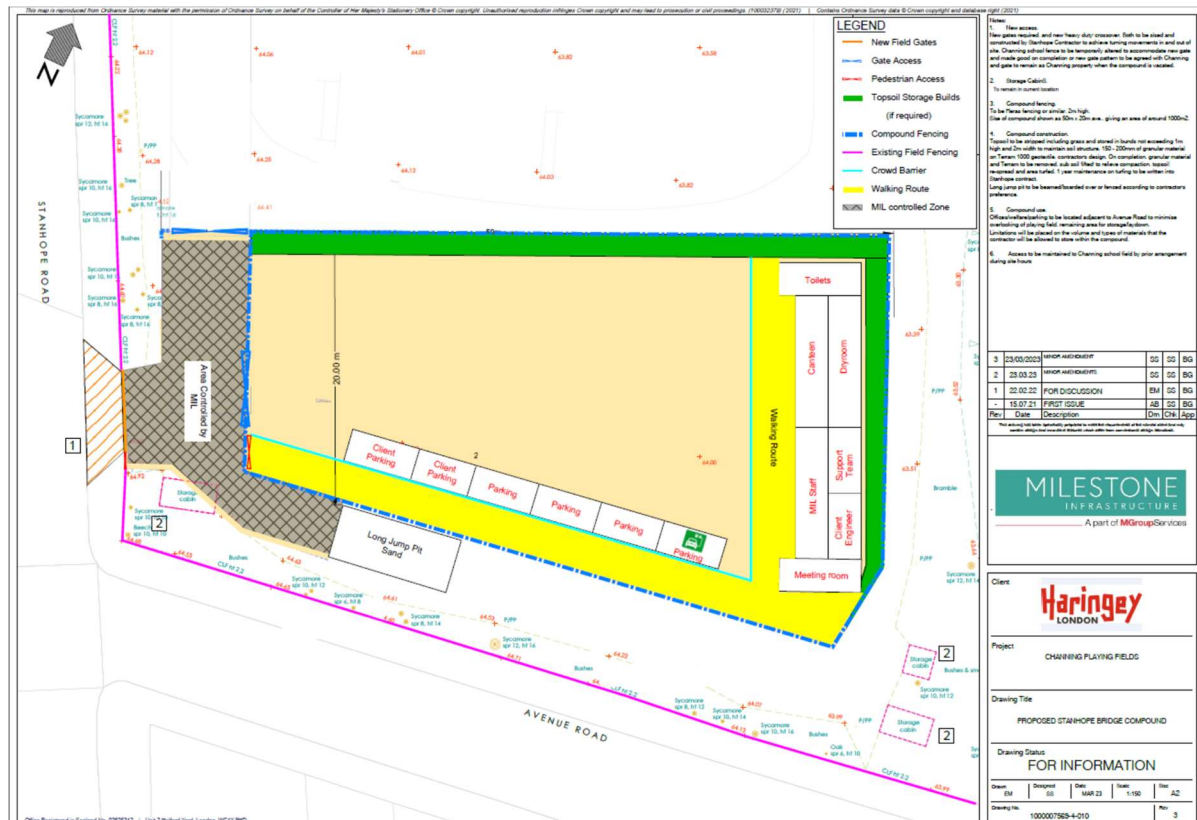


PERMANENT WORKS BOUNDARY – Dwg. 70085596-WSP-SBR-DR-BR-0000

6. Welfare Facilities

The welfare facilities are provided 100m North of the site in a school playfield and will contain: #

- Site offices and facilities
- Canteen with hot and cold running water, drinking water and meal facilities
- Dry-room changing room
- Male and female toilets



7. Permits Required

Permit to avoid underground services	Yes ☒ No ☐	Refer to section 19
Hot Works Permit	Yes ☒ No ☐	Refer to section 18
Confined space permit	Yes ☐ No ☒	Refer to section 22
Lift Plans	Yes ☒ No ☐	Refer to section 20
Other Permits	Yes ☒ No ☐	If yes, give details in section 8

8. Details of additional permits required

LB Haringey will arrange for Temporary Traffic Orders to permit introduction of Single Alternative Lane Working, the closure of Stanhope Road at the site and to prohibit parking in the vicinity of the site and site compound.

A permit to occupy the Highway must be obtained from LBH Network Management team prior to occupying the Highway.

The application is to contain full details of any proposed works on the Highway, including Method Statements and proposed Traffic Management and diversion layout drawings. The application is to be made at least 2 weeks prior to the installation of any Traffic Management System.

9. Risk assessments

RA001 – General Site Operations

Covering:

- Use of Hand Tools
- Use of Portable Electrical Equipment
- Activities Producing Dust
- Use of Compressors and Pneumatic Power Tools
- General Labouring
- Working at Height
- Use of disc cutter and abrasive wheels
- Access to and egress from the site
- COSHH
- Site Compound work
- Working from the back of vehicles
- Visitors – company, client, suppliers and public
- Works in close proximity to local school

RA003 – Site Surveys and Trial holes

Covering:

- Various items covered in RA001
- Excavations – breaking out asphalt surface
- Excavations – general
- Excavations – Hand dig

- Excavation – Vacuum Excavator

RA004 – Excavations and Drainage

Covering:

- Various items covered in RA001 & RA003
- Use of Excavators (including excavation operations)
- Use of Transit tippers and dumpers
- Works in and with excavations
- Use of excavators for lifting
- Working with concrete

10. COSHH assessments

Below is a table of the COSHH assessments that have been completed for the works and hard copies are to be kept with the materials within the bunded COSHH container in the site compound.

Assessment ID	Substance	Manufacturer	Review Date
4690303	Roadmarking paint	One Stop	03/2026
277275	Filler (aerosol)	Everbuild	07/2024
4681384	Generic – Ready mix concrete	N/A	09/2024
4681378	Grease – mineral oil	Morris Lubricant	04/2028
4286468	Generic – Asphalt	N/A	05/2024
4286465	AdBlue	GreenChem	05/2026
4267423	Generic – Mortar	N/A	04/2024
4267662	Denso Tape	Winn & Coales	04/2026
4423532	Lubricant	Polypipe	01/2025
3566589	Generic – Oil (Engine)	N/A	07/2024
4286851	Generic – Diesel	N/A	05/2026
4423468	Soundaseal	Soudal	01/2024
3566584	Generic – Petrol	N/A	07/2024
3527816	Generic – Bleach	N/A	07/2024
2480090	Generic – 2Stoke oil	N/A	06/2025
3468384	Generic – Silicone Sealant	N/A	01/2025
289063	Mould Release Oil	Bostic	02/2024
28555	Ready mixed concrete	CEMEX	06/2024
78756	Generic - Cement	N/A	07/2024
286462	Generic – Sand	N/A	02/2024
277275	Everbuild Expanding foam	Sika	07/2024
277306	Generic - Bitumen	N/A	07/2024

There are several controls that will be in place on site in order to manage the risk imposed from hazardous materials, their use and their storage;

- A Ventilated and bunded COSHH material storage container
- All materials risk assessed on their exposure scenarios and assessments kept with materials
- All COSHH materials must be returned to the container when not in use
- All COSHH material receptacle waste (i.e spray/paint cans) will be stored in specific COSHH waste bins and disposed of as hazardous waste by licenced waste contractor
- A bunded, padlocked fuel bowser will be set up in the site compound within a fuelling area
- Several spill kits will be provided in key risk areas (i.e fuelling area, with machines, storage area)
- Plant nappies will be utilised and placed beneath all plant and equipment that contain oils or fuels when not in use to ensure any leaks are captured.

11. Traffic management arrangements

Various phases of traffic management will be conducted as part of the works including

- Traffic controlled part lane closures
- Traffic controlled pedestrian crossing
- A Full road closure with diversion routes in place
- Pedestrian diversion walking route to maintain the Parkland walking route
- Small localised closures / areas closed with barriers for trial holes

Full traffic management plans, procedures, method statements and risk assessments will be the responsibility of the traffic management contractor.

Small closures for trial holes and minor works can be installed by Milestone operatives via chapter 8 barriers and signage. These closures are for short duration works which are to be removed as soon as possible, preferably by the end of shift. If a footpath is closed in this fashion, footpath diversions will be in place with appropriate signage, kerb ramps and a banks person. Any operatives installing traffic management on public right of way will have the appropriate competencies to do so.

12. Personal protective equipment (PPE)

6 Point PPE (Safety Footwear, Hi Viz Vests, Hi Viz Trousers, Hard Hats, Gloves and Safety Glasses) are mandatory on all worksites for ALL persons including visitors/client etc.

***Arc Rated All-in-one Arc coveralls are mandated for all excavation teams**

The following PPE is to be worn where specified in the method statement, COSHH and/or Risk Assessments

Item	Details	For Use In
Hard hat	BS EN 397	At all times
High visibility vests	BS EN 471 Class 3	At all times
High Visibility Trousers	BS EN 471 Class 3	At all times
Safety Footwear	BS EN 20347	At all times
Gloves	BS EN 21420 (Replaces EN420 by 2023)	At all times
Safety Glasses	EN166	At all times
Safety Goggles	EN166B	As required for use with power tools In areas where breaking

		procedures taking place
Arc rated overalls	EN ISO 11611 2015, EN ISO 11612 2015, EN 1149-5 2018, IEC ISO 61482-2 2018	Excavating for trial holes
Ear Defender	EN 352	Where necessary Where noise levels exceed 85dB
3M - Dust Mask	8810 Dust/Mist FFP2 FFP3	Works generating dust, dusty areas, mixing concrete and tarmac, cutting cementitious materials.

Supply Chain, plant hire personnel and suppliers shall follow this procedure. They may substitute any specified item of equipment with alternative equipment providing it meets the relevant current British Standard and provides the level of protection required.

In the case of a one-off delivery driver not being in possession of the requisite PPE then it may be expedient for the equipment to be provided by Milestone Infrastructure.

Where the requirement to wear 6 Point PPE is mandatory (for example, in operational areas within depots and on site), the **wearing of shorts, sleeveless vest, short sleeved tops, beanies and Rigger Boots is prohibited.**

13. Plant and materials to be used

- Delivery vehicles: flat bed lorries, articulated HGVs, various sizes of vans and flat bed trucks
- Telehandler
- Excavators with bucket and breaker attachment and lifting equipment (Toothed buckets are prohibited)
- Dumpers
- Small vacuum excavator (internal covered by these RAMS)
- Large vacuum excavator (external inc specific RAMS)
- Sweeper attachment for telehandler
- Various small hand tools – only small, portable, fit for
- Portable generator
- Breakers
- Petrol saw
- Insulated shovels
- Chapter 8 Barriers
- Water filled barriers
- Slot block barriers
- Stand pipe
- Cordless hammer drill
- Transit van
- Pipe materials (TBC) preferred HDPE
- Precast concrete manhole rings and cover slabs
- D400 manhole covers
- Gully pots (TBC) preferred HDPE
- Slot drains

- Perforated Carrier Pipes
- Geosynthetic clay liner
- Cellular confinement system
- Bag-work with sub-soil and seed mix

Note;

- All plant and machinery to be used during the demolition and construction phases of the development shall meet Stage IIIA of EU Directive 97/68/ EC for both NOx and PM emissions.
- To protect local air quality and comply with Policy SI1 of the London Plan and the GLA NRMM LEZ, prior to the commencement of works, MIL to show evidence of site registration at nrmm.london to allow continuing details of Non-Road Mobile Machinery (NRMM) and plant. This shall be submitted to and approved by the Local Planning Authority in writing.

14. Safe method of work to be implemented

Permit to dig - Service Coordinator – Procedure

- Each uniquely numbered permit will contain full details on the location, description of the works and results of a comprehensive buried services line search
- All operatives involved with the excavation team will have Milestone Line in the sand training.
- The service coordinator will conduct a desktop study of the proposed excavation works and working area and note preliminary controls and aim and requirements of the work
- The service coordinator will conduct (or delegate) a service investigation on site using a CAT and genny survey, a visual inspection and open up local service covers to investigate type, direction and depth of existing services.
- Trial holes will be completed in suitable locations to confirm location, type and depth of services to better ascertain what the existing below ground services are.
- The permit will then be updated with the findings of the survey and excavation works permit will be prepared with the above details and issued by the Milestone service co-ordinator and issued to the nominated permit holder
- The 'Permit' will be briefed to the permit holder (and dig team, permit holder may brief the dig team separately) by the co-ordinator which a record of briefing will be signed by all personnel involved. Compliance to this procedure and the details contained is mandatory.
- It shall be independent of any other permits/works being carried out on-site and will remain on-site for the duration of all excavations work for that shift.
- All existing service drawings, sketches, plans, as-built surveys etc of any underground or surface services will be continually referenced throughout the excavation exercise. A physical check for any visible signs of services (i.e. marker posts, inspection pits, access covers, CMS routes) as well as if any existing services external to the route can be protected using split ducting during the works.
- Operatives undertaking this activity will be suitably trained with the relevant competencies checked prior to start. The area of introduced to indicate the present of any services (known/unknown) and the precautions to be taken listed.
- Upon completion of the works, the Supervisor/Ganger will ensure that all sections of the permit are properly filled-out, before signing-off the permit and returning to the project office will be scanned using certified/calibrated approved CAT and genny. Sketches will be produced to indicate the present of any services (known/unknown) and the precautions to be taken listed. Any uncharted services discovered will recorded on the Dyer and Butler workspace system.
- Upon completion of the works, the Supervisor/Ganger will ensure that all sections of the permit are properly filled-out, before signing-off the permit and returning to the project office.

Trial Holes & Pre-excavation Procedures

This section of the method statement will outline the safe working procedures that must be followed when commencing trial holes prior to main excavation procedures commencing. These procedures form part of the permit to dig system as to control the risks involved with breaking ground activities.

- The Milestone permit to break ground will be completed by the nominated Service Co-Ordinator as per the above procedure. At which time a Permit holder will be assigned to the works and all steps will be taken as required by the permit to dig procedure (as outlined above)
- Prior to works being undertaken, existing services drawings will be checked and marked out by a site engineer
- Local manholes will be opened and surveyed in order to identify levels and directions of local services. Existing ground scarring will also be used to such effect.
- Prior to breaking ground at any point, a CAT scan of the area will be completed to confirm presence of known/unknown services.
- Where there are known services located in the excavation area via services drawings and CAT scans, these will be marked on the ground via spray paint and carefully hand dug via approved methods to uncover the suspected services and sufficiently supported.
- Any uncharted services will be traced as far as possible, marked on a drawing and issued to the relevant parties.
- All services are to be treated as LIVE until conclusively proven / confirmed to be dead.
- If no services are identified within the excavation area, trial holes can be commenced via approved hand digging methods.
- Air lance and vacuumed excavation to be utilised where possible
- Insulated shovels must be used when hand digging holes.
- In areas where services clash with the excavation area; the area will be carefully hand dug via approved hand digging methods. Insulated tools will be used, and services will be protected and sufficiently supported.

Excavations

This section will outline the safe working methodology for excavation operations.

- The selected digging operations that may be utilised are as follows:
 - Excavators
 - Hand digging operations with insulated Hand tools.
 - Vacuum excavation utilising a vac-ex.
- The appropriate excavation method will be selected as part of the permit process depending on the location, depth and risk involved with the excavation operation.
- The excavation works will be carried out under the control of a competent banksman.
- All safe pre-works procedures, permit to dig and trial holes have been completed as per section above and service co-ordinator has confirmed excavation works may commence.
- Dumpers will be used for transportation of excavated material to the storage area as outlined by the Milestone management team within the site compound – Material will be segregated as best as possible, investigated for signs of contamination and disposed of via licenced waste carriers to licenced disposal / rework facilities and tracked via the Site Waste Management Plan
- The excavation will be completed in lengths of approximately 10m or as far as the excavation support systems will allow.
- Proprietary shoring systems will be used on all excavations deeper than 1.2m, to prevent accidental collapse of the excavation. The Temporary works design and manufacturer's instructions will be adhered to when installing the shoring system.
- All temporary works in place will follow the Milestone temporary works procedure.

- Where shoring systems will be used, the proprietary edge protection for the system will be in place and installed as per manufactures instructions.
- Exclusion zones will be set-up around the excavation and walking routes assigned via barriers and signage to keep persons away from the hazardous areas. "Deep excavation" signage
- Excavators must not dig deeper than 150mm with each strokes.
- Hand digging must be used close to the suspected location of buried services as found during the pre-excavation procedure. This must be carried out with high caution. This applies regardless of known service depths.
- See attached appendices for guidance on safe digging, service locating and marking and other guidance regarding excavation procedures.
- ARC Rated full body PPE and helmets with visors will be worn by all operatives within the excavation team

Drainage - Pipework Installation

- Where shoring systems will be used; the proprietary edge protection system will be used and installed as per the manufacturers guidance.
- Drag boxes will be utilised for the installation surface water pipework where deemed necessary (excavation depths greater than 1.2m)
- Exclusion zones will be set out and adhered to around the excavation as required where fall prevention is not achieved via the proprietary shoring system.
- All services clashing with the work area will be protected after careful hand digging techniques will be conducted to locate and services supported as necessary.
- Pipework will be installed as per the manufacturer's instructions including the use of proprietary jointing, sealing and installation components, i.e. collars, couplers, pipe lubricant
- The sequence of the drainage installation will consist of;
 - Excavate 10m run for the pipe work installation area as set out by the site engineer
 - Lift shoring system into length of excavation ensuring proprietary edge protection is in place and safe to use
 - Install access system as per manufacturers instructions
 - Exclusion zones will be set up for areas not protected by the proprietary edge protection system.
 - Initial bedding material will be installed to the base of the excavation to provide a base for the pipe installation Concrete safety working procedures will be adhered to for Class z bedding / surround
 - Lay the drainage pipe to correct line and level as outlined by the site engineer for the initial pipe installed into the run utilising a pipe laser / rotating laser / total station with a cross check using at least 2no of the different measurement methods
 - Backfilling installed as per the approved construction drawings and compacted as required either with roller, wacker plate or excavator compactor attachment
 - Backfilling with selected material as per the approved construction drawings and compacted as required
 - Repeat procedure until section of pipe has been completed.
- Pipe testing will be carried out as the pipes are laid **and** at the end of each run (in between 2no man holes) air testing will be carried out as per BS EN 1610

Drainage – Manhole / Chamber Installation

- Engineer will mark out the location of the manhole
- Excavation procedures will be carried out in accordance to the methodology above
- Proprietary manhole shoring support systems will be installed as the excavations progresses as per manufacturers literature including edge protection systems.
- Engineer will mark out the centre of the manhole and ends of pipe runs and invert level of the

manhole

- The proprietary edge protection system will be always in place.
- Once at excavation level, base ground will be compacted, and a blinding course installed.
- Base concrete pad will be installed to the correct line and level as set out by the site engineer.
- Channels and backdrops will be installed in situ as set out by the site engineer.
- Pipework will be installed to line and level and the concrete benching will be completed.
- Rocker pipes will be positioned at the edges of the manhole.
- Preformed channels will be used where possible to form the internals of the manhole.
- Dry concrete will be poured and manhole base formed.
- All excavator movements with the bucket within and around the manhole will be banked by persons on the ground.
- Trowels and hand tools will be used for form and compact concrete into shape for the manhole.
- The first pre-cast concrete ring will be set into position and dry concrete compacted around the ring to ensure good cohesion.
- Ring will be placed ensuring the access ladder rungs line up with the access requirements for the manhole.
- After time has been given for the concrete to dry, benching will be completed to the manhole base.
- The rest of the concrete rings will be installed to the required level as set out by the site engineer.
- A bituminous top strip will be installed at concrete ring joints to ensure water tightness.
- The proprietary formwork will be erected around the installed manhole rings which will form a minimum 150mm surround to the manhole.
- Concrete will be poured and adequately compacted.
- Concrete will be allowed sufficient time to cure as allowed by weather conditions and proprietary formwork struck and inspected.
- Remedial works completed as required following post-concrete pour inspection.
- The pre-cast concrete cover slab will be placed on top of the rings ensuring correct alignment with the access step rungs
- Min 2 max 4 brick work courses or pre-cast cover rings will be bedded in 3:1 sand cement mortar
- String lines in minimum 2 axis will be used to align the top level of the Manhole cover and the cover will be bedded using the correct bedding material.
- Excavation will be back filled, compacted and made good as per the contract drawings

Drainage - Installation of road gullies

- Road gully position will be marked out by the site engineer and location of the tee within the carrier drain will be marked
- Excavation procedures will be followed as per above procedure
- Excavation for gullies will be completed, if the excavation is expected to be greater than 1.2m trench boxes will be utilised to support the excavation edges
- The precast concrete gully housing will be placed into position as directed by the site engineer
- Gully pot will be lifted into position utilising machine lifting knuckles with appropriate certified and tested slings, slug by competent slinger and banked into position appropriately

- Gully will be set to allow for 2-4 seating rings to be installed
- Concrete surround will be applied to the gully as per design drawings
- Gully lateral connection pipe will be installed as per the pipe installation procedures taking to account temporary works, edge protection and traffic management requirements.
- Type z surround will be utilised as required by design and advised by site engineer
- Trench for lateral connection pipe backfilled and compacted as required

Drainage – Installation of channel drainage

- Engineer will set out the start and end of each run and it's lateral pipe to connect the channel drain to the carrier drain pipe. A String line will be used to set out the length of the run
- Channel drainage channel components will be bedded as per manufacturers instructions set to the string line
- Each component will be bedded for the length of the run
- The outfall component will be bedded at the end of the run as required
- Excavation operations will be conducted as required for the lateral outfall pipe to it's tee connection at the carrier drain pipe pre-excavation and permit systems will be applied
- Channel drain outfall pipework will be installed to the carrier drain tee
- Edge protection and excavation support systems to be in place as required by manufacturers instructions and MiL standards.
- Backfill operations as per approved design and compaction as required

Drainage - Installation of attenuation chamber

- Engineer will set out the location, line and level of the attenuation tank
- Excavation operations will be conducted as per above procedure for the excavation tank pre-excavation and permit systems will be in place
- Once excavation completed, geotextile material will be laid into the excavation and jointed as per manufacturers guidance
- Geomembrane for attenuation chamber will be laid on top of the geotextile and jointed as per manufactures guidance
- Attenuation crates will be placed into the excavation, slotting in and clipping up as per manufacturers guidance
- Once crate installation completed, geotextile and geomembrane materials will be laid on top of the attenuation tank and be jointed as required.
- Backfill operations to the top of the tank as per design requirements and compacted as required.

Concrete Pour Procedures

This section is to outline the methodology and general procedure to be followed when conducting concrete pour operations

- Pre-Pour checks

- Confirmation from the site engineer that reinforcement, spacers, cover, accessories (i.e. lifting eyes) and openings are correct and to the design.
- Appropriate task-specific PPE will be worn for this activity; elbow rubber gloves, steel toe capped wellies and cover all jump-suit
- Confirmation from the site engineer that formwork is correct in relation to dimensions, openings, line and level and general standard of workmanship
- Formwork is free from dust, debris and other contaminants
- Appropriate oil / striking agent has been applied to formwork
- Slump test completed and concrete is compliant if required
- Pouring concrete
 - Appropriate PPE will be worn for the task, this will include elbow length rubber gloves, steel toe capped rubber wellington boots and coveralls to be worn by operatives in direct contact with concrete.
 - Concrete is poured in layers of approx. 300-500mm to allow for thorough vibration
 - Concrete is thoroughly vibrated for the duration of the pour
 - Exposed concrete edges will be trowelled to a smooth finish
 - All tools and equipment will be cleaned following concrete pour
 - All persons will clean any concrete that has contaminated the persons.
- Curing times
 - Sufficient curing time will be allowed for concrete prior to striking shuttering and applying loading to concrete
- Shuttering will be struck
 - Concrete inspected by site engineer and all required making good will be noted on the ITP and actioned.
- Concrete encasement of pipes
 - Concrete encasement will be required for some pipes in close proximity to foundations, services and tree pits – to be set out by the site engineer.
 - Root ingress protection will also be required in locations of tree planters, to be set out by the site engineer.
 - Engineer will check line and level of pipe to ensure correct to design.
 - Pipes will be secured in place and concrete spacers installed to maintain clearance between the drainpipes.
 - Timber formwork will be installed at the crossover location and concrete poured. Note : the above listed methodology for Concrete pours will be followed.
 - Compressible material may be required at locations of pipe joints as per design, to be set out by the site engineer.

Backfill Operations

- All required checks will be completed and confirmed by the site engineer including:
 - As built measurements of installation completed.
 - Marker / Warning tape installed.
 - All quality checklist checks completed.
- Once authorisation received, backfill operations may commence.

- Backfill will only be completed with selected, design appropriate imported fill material or approved site re-use material.
- Backfill will commence in 150mm layers with sufficient compaction.
- The SHW compaction table will be utilised to ensure appropriate number of passes are completed for each section of backfill.

Pond Installation

- The pond area and shape will be set out by the site engineer.
- A excavator will be used to cut and fill to excavate the extent of the pond to the correct shape and depth as per site engineers instruction
- The excavated material for the pond will be used to fill in the adjacent re-profiled ground area – material not to be moved from the area and care will be taken to suitably segregate it and ensure it does not get contaminated.
- Excavator will then use a grading bucket to fine tune the shape of the pond
- The Bentotex GCL100 Geosynthetic clay liner will be laid to the base of the pond – 100mm lap joints will be applied – no jointing will be required as the membrane self joints when wetted.
- Clay liner to be secured in between bag work at the south side of the pond
- Cellular confinement system will be laid to the base of the pond above the clay liner, and joints tied together as per manufacturers instruction.
- Enviroclips installed to retain the cellular confinement system to the slope (TBC confirm if compatible with clay geomembrane below)
- 300mm of the specified topsoil will be placed into the confinement system.
- Planting baskets installed as per design.
- Bio-degradable erosion control installed to top of confinement grid with slits cut and seeding installed
- Bagwork retaining wall constructed with sub-soil and woodland seed mix
- Drain inlet and outlet pipes installed to pond at bag-work area

15. Control of Hand Arm Vibration Syndrome (HAVS) risk and Noise control measures

All items of plant and equipment that may cause a risk from HAVS must be individually listed in the table shown below.

Equipment	Vibration Output	Actual trigger time to reach the daily 80 exposure points limit

Where operatives may be called upon to operate two or more different items of plant and equipment an additional risk assessment to assess the cumulative effects of this must be undertaken using the exposure calculator and the details should be recorded here and the completed assessment must be attached to this method statement.

To be updated when on site and equipment confirmed

16. Monitoring of site operations

Training and competencies held by the site operative team at minimum shall be as shown below :

Training/Competencies	No
CSCS/CPCS Card	All
Manual Handling Trained	All
CAT scan. Competent.	Minimum 1
Service Protection Co-ordinator	Minimum 1
Abrasive wheels certification	Minimum 1
First Aider	Minimum 1
SMSTS / SSSTS	Minimum 1

Checks of operatives competencies, training certificates and site awareness and capabilities will be evaluated by the management team on their arrival to site and during the induction process.

Site supervisors will conduct regular checks throughout the day on the progress and safety of the operations occurring on site and relay information to the site management team.

Site engineers will conduct regular checks throughout the day on the safety and quality key performance indicators on site and relay the information to the site management team.

The **Site agent** will conduct at minimum one daily site inspection.

Site **project manager** will conduct a weekly site inspection.

Milestone **Health and Safety** advisor will conduct a inspection once a month.

Milestone **Environmental advisor** will conduct a inspection once a month.

Milestone **senior leadership** will a inspection once a month.

17. Training requirements

Training/Competencies	No
CSCS/CPCS Card	All
Manual Handling Trained	All
CAT scan. Competent.	Minimum 1
Service Protection Co-ordinator	Minimum 1
Abrasive wheels certification	Minimum 1
First Aider	Minimum 1
SMSTS / SSSTS	Minimum 1
CPCS, NPoRS	Plant operators

Safety critical medical	All operatives
Facefit testing	All operatives
Confined Space Training	Confined space works

18. Fire prevention measures and control of hot works

Appropriate COSHH material storage as per COSHH risk assessments

Spill kits and plant nappies provided in various locations where risk of leakages is present.

Fuel station set up within compound with a refuelling plan with spill kits and fire extinguishers provided.

Fire extinguishers provided at points of high risk and at various points throughout the site compound and work site areas.

Fire muster points and fire plan included within CPP.

At minimum one fire Marshall will be present at all times. Several of the on-site Milestone management team have fire Marshall and fire prevention training.

Once site set-up complete, third party fire risk assessment will be undertaken and section updated

19. Control of ground or structural penetration work

Any work involving the disturbance or penetration of the ground or a structure is always hazardous due to uncharted and unknown services that may be present. The following outline procedure must be strictly followed when carrying out this type of activity:

1. A Permit to avoid underground services is required for all work of this nature.
2. Where possible the client/service provider should isolate known services prior to carrying out the work. This isolation should be confirmed in writing prior to commencing.
3. Using a CAT (Cable Avoidance Tool), the area must be scanned, and the positions of any known services identified. If other services are identified by the CAT scan, then extreme caution must be exercised when carrying out the work.
4. Manhole and pit covers must be lifted within the immediate location to establish the direction and depth of any services. Where possible always use clamp and/or generator to establish depth and direction of services.
5. Trial holes using horizontal digging techniques must be made to identify the true location, depth and direction of known services.
6. Excavators must never dig deeper than 150mm with each stroke unless it is known that there are no services present.
7. CAT scanning must take place after every layer of soil is removed to ensure that any services can be successfully located.
8. Hand digging must be used within 500mm of the suspected location of a buried service. This must be carried out with extreme caution. This applies regardless of known cable depths.
9. Any changes to the safe system of work associated with the excavation works must be approved jointly between the Site Agent and the Permit Issuer prior to being undertaken.

20. Lifting Operations

An individual lifting plan must be attached to this method statement which covers all of the lifting operations that are to be undertaken on the site.

All lifting accessories should be tagged with the current compliance colour.

Lifting operations using open 'C' hooks are not permitted.

The delivery of site cabins and welfare lift plan will be completed by the supplier of the units and will be reviewed prior delivery.

Lift plans for excavators and telehandlers will be produced once on site and appended to this document

21. Manual handling

Arrangements are to be made to identify any major elements of the work which may constitute a risk from manual handling. The relevant control measures must be recorded in this section of the method statement.

Manual handling will be reduced as far as reasonably practical to ensure manual handling risk is eliminated from the works activities. Methods of construction will be reviewed, and other options of handling materials will be employed such as:

- Mechanical means of lifting employed (telehandlers, excavators, hoists)
- Elements pre-fabricated off-site and delivered to position
- Lifting aids such as kerb lifters, wheel barrows, vacuum lifters and trolleys and trucks
- Heavy materials shall be palletised and moved via telehandler
- All operatives will have manual handling training

22. Confined spaces – safety arrangements

All Operatives involved in a confined space entry must be trained and competent to do so.

Only an 'Authorised Person' may issue a Confined Space Entry Permit.

Confined space risk is not deemed to be encountered as part of these works.

23. Environmental considerations

Statements showing how all relevant environmental aspects and impacts that are identified either in the PMP or on the Risk and Environmental Impact Assessment Form must be recorded in this section of the method statement.

Risk to existing water courses and systems

Gully protection horns will be installed into all local gullies to ensure construction debris does not contaminate the local surface water system – note this is a final point of control in case other controls fail.

Control of COSHH Hazards

Due care will be taken while using any chemical and COSHH liquids to ensure nothing is spilled into the existing water course. COSHH materials will be stored on plant nappies on site, as well as any tools, plant or equipment that have a risk of leakage. Spill kits will be provided at risk points within the site compound and the work site areas. COSHH assessments will be completed, and hard copies stored with the COSHH materials.

A bunded COSHH material stored unit will be used for the safe storage of all COSHH materials, all materials will be removed here at the end of each shift. Materials will be segregated within the storage and clearly labelled including COSHH hazard labelling.

A refuelling station and refuelling plan will be created within the site compound and sufficient controls in place to control the risk of spillages as well as sufficient spill kits to ensure spills can be swiftly taken care of. Operatives will have COSHH and spillage training.

COSHH waste material (i.e used spill kits, empty paint cans) shall be stored in specific COSHH waste bins and disposed of appropriately.

Unexpected find of injurious, invasive or notifiable species:

Toolbox talks to be conducted with the site team to raise awareness of plant species and their status.

*Where observed on site, a report should be submitted to CSC, the site agent and the environmental advisor
The discovered plant will be contained on site within an enclosed skip with appropriate signage and identification.*

Negative temporary noise exposure for local residents

Works timings will aim to be undertaken outside of unsociable hours, however where this is not possible, a Section 61 may be applied for and consultation with the local authority completed.

Site personnel will be informed where necessary of the need to minimise the noise exposure to the neighbouring community.

Audible alarms such as reversing beeper will be limited to a low volume setting.

Details of how any waste will be managed must also be recorded in this section of the method statement.

A site waste management plant will be in place to manage and monitor all details of waste material, including spoil movement. All waste material removed from site will have a waste transfer note from a licenced waste carrier and each note will be noted on the SWMP.

Waste and spoil areas will be set up within the site compound and all materials will be segregated by type, with appropriate signage installed denoting the type of waste it is. A general waste skip will also be provided with a closable lid.

24. Site specific emergency arrangements

Local Muster Point:

Always telephone the relevant emergency service first then the Site Agent if there has been a serious injury or there is an immediate risk of danger

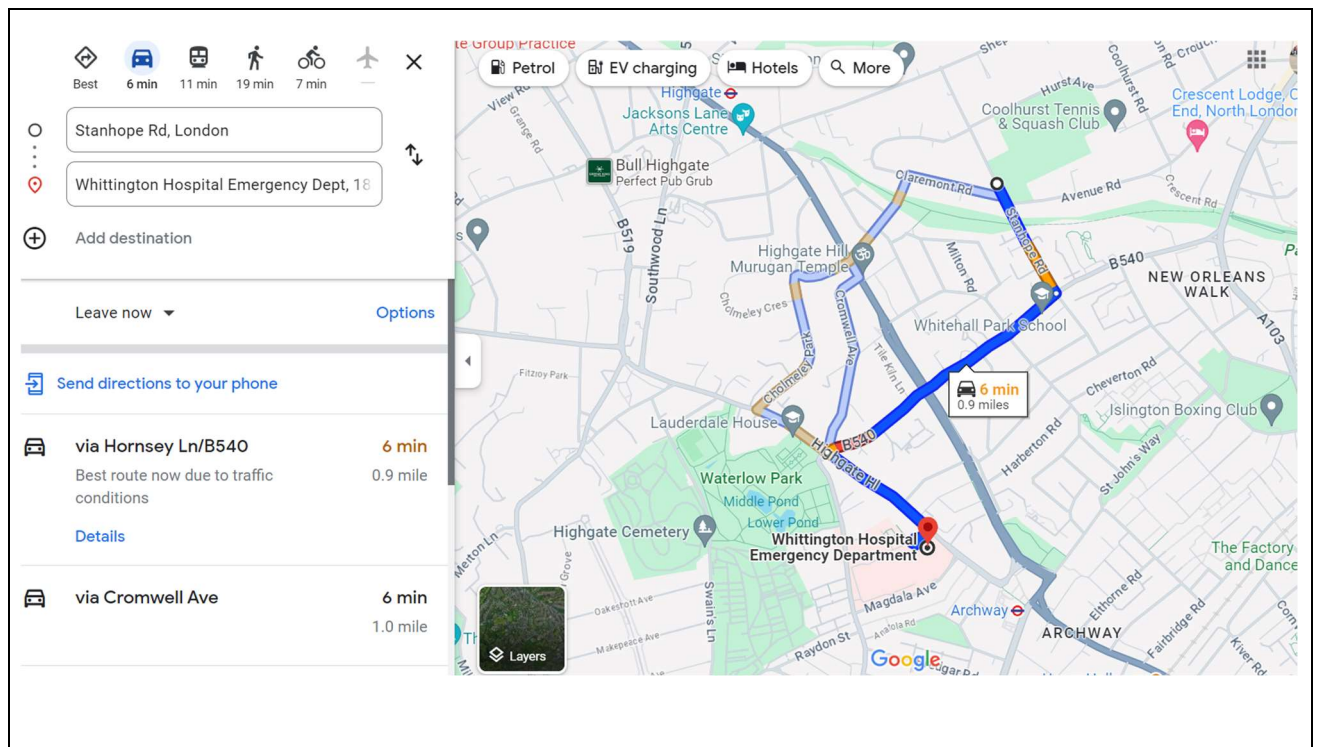
Call the Site Manager first for advice if there is no immediate risk of danger and/or no one has sustained a serious injury.

In Case of Emergency 999

Local A&E Whittington hospital emergency department

Method Statement

MIL_TEM_HS_004.6



25. Method Statement briefing record			
This briefing was provided to all employees and subcontractors undertaking the work by the following person:			
Name:		Position:	
Declaration – I confirm that I have been provided with the method statement briefing by the person named above and have understood and will abide by all of the information provided.			
Name:	Job title:	Company:	Signature: