

COUNTSTHORPE CEMETERY EXTENSION

LANDSCAPE HARDWORKS

SPECIFICATION FOR TENDER

Client: Countesthorpe Parish Council

Designer: munro + whitten ltd

REVA

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110 TENDER DRAWINGS

The tender drawings are listed in Appendix A of this document.

120 CONTRACT DRAWINGS

The contract drawings: Same as the tender drawings.

A12 THE SITE/ EXISTING BUILDINGS

110 THE SITE

- Description: A former agricultural field.

140 EXISTING UTILITIES AND SERVICES

- The Contractor shall be responsible for determining the existence and position of gas, electric, water, BT and drainage building services affecting the works. Details regarding existing services are detailed within the Pre-Construction Information to be provided by the client.

200 ACCESS TO THE SITE

- Description: Access to the site is via Foston Road
- Notice: The existing access road has a restricted width.

220 USE OF THE SITE

- General: Do not use the site for any purpose other than carrying out the Works.
- Limitations:
 - Contractor must keep all site cabins, materials, dumps and the like within the site boundary.
 - Contractor's Proposals required for approval.

A13 DESCRIPTION OF THE WORKS

120 THE WORKS

- Description: Hard landscaping work which includes: Breedon gravel footpaths, self binding gravel road.

A30 PRICING/ SUBMISSION OF DOCUMENTS

220 PRICING OF PRELIMINARIES

- Charges: If the Contractor requires interim payments to include fixed and time related charges for specific items in the preliminaries, those charges must be clearly shown against the items.

250 PRICED DOCUMENTS

- Alterations: Do not alter or qualify the priced documents without written consent. Tenders containing unauthorized alterations or qualifications may be rejected.
- Measurements: Where not stated, ascertain from the drawings.
- Deemed included: Costs relating to items, which are not priced, will be deemed to have been included elsewhere in the tender.

Submit: With the tender.

310 TENDER

- General: Tenders must include for all work shown or described in the tender documents as a whole or clearly apparent as being necessary for the complete and proper execution of the Works.

480 PROGRAMME

- Programme of work: Prepare a summary showing the sequence and timing of the principal parts of the Works and periods for planning and design. Itemize any work which is excluded.

Submit: With the tender.

481 SITE VISIT

- The contractor is advised to visit site prior to returning the tender to understand the particulars of the site.

530 SUBSTITUTE PRODUCTS

- Details: If products of different manufacture to those specified are proposed, submit details with the tender giving reasons for each proposed substitution. Substitutions, which have not been notified at tender stage, may not be considered.
- Compliance: Substitutions accepted will be subject to the verification requirements of clause A31/200.

550 HEALTH AND SAFETY INFORMATION

- Content: Describe the organisation and resources to safeguard the health and safety of operatives, including those of subcontractors, and of any person whom the Works may affect.
- Include:
A copy of the contractor's health and safety policy document, including risk assessment procedures.
 - Accident and sickness records for the past five years.
 - Records of previous Health and Safety Executive enforcement action.
 - Records of training and training policy.
 - The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.

Submit: With the tender.

570 OUTLINE CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

- Content: Submit the following information within one week of request:
 - Method statements on how risks from hazards identified in the pre-construction information and other hazards identified by the contractor will be addressed.
 - Details of the management structure and responsibilities
 - Arrangements for issuing health and safety directions.
 - Procedures for informing other contractors and employees of health and safety hazards.
 - Selection procedures for ensuring competency of other contractors, the self-employed and designers.
 - Procedures for communications between the project team, other contractors and site operatives.
 - Arrangements for cooperation and coordination between contractors.

- Procedures for carrying out risk assessment and for managing and controlling the risk.
- Emergency procedures including those for fire prevention and escape.
- Arrangements for ensuring that all accidents, illness and dangerous occurrences are recorded.
- Arrangements for welfare facilities.
- Procedures for ensuring that all persons on site have received relevant health and safety information and training.
- Arrangements for consulting with and taking the views of people on site.
- Arrangements for preparing site rules and drawing them to the attention of those affected and ensuring their compliance.
- Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.
- Review procedures to obtain feedback.

SUBLETTING/ SUPPLY

630 DOMESTIC SUBCONTRACTS

- General: Comply with the Construction Industry Board 'Code of Practice for the selection of subcontractors'.
- List: Provide details of all subcontractors and the work for which they will be responsible.
Submit: Within one week of request.

A31 PROVISION, CONTENT AND USE OF DOCUMENTS DEFINITIONS AND INTERPRETATIONS

200 SUBSTITUTION OF PRODUCTS

- Products: If an alternative product to that specified is proposed, obtain approval before ordering the product.
Reasons: Submit reasons for the proposed substitution.
Documentation: Submit relevant information, including:
 - manufacturer and product reference;
 - cost;
 - availability;
 - relevant standards;
 - performance;
 - function;
 - compatibility of accessories;
 - proposed revisions to drawings and specification;
 - compatibility with adjacent work;
 - appearance;
 - copy of warranty/ guarantee.Alterations to adjacent work: If needed, advise scope, nature and cost.
- Manufacturer's guarantees: If substitution is accepted, submit before ordering products.

DOCUMENTS PROVIDED ON BEHALF OF EMPLOYER

440 DIMENSIONS

- Scaled dimensions: Do not rely on.
- Seek setting out data where appropriate.

460 THE SPECIFICATION

- Coordination: All sections must be read in conjunction with the tender drawings

470 DIVERGENCE FROM THE STATUTORY REQUIREMENTS

- Divergence: Between the drawings or specification and the requirements of the Building Regulations, other statutes, statutory undertakers and other regulatory authorities.
- Action: Inform immediately.

DOCUMENTS PROVIDED BY CONTRACTOR/ SUBCONTRACTORS/ SUPPLIERS

510 CHANGES/AMENDMENTS TO EMPLOYER'S REQUIREMENTS

- Contractor's changes to Employer's Requirements: Support request for substitution or variation with all relevant information.
- Employer's amendments to Employer's Requirements: If considered to involve a variation, which has not already been acknowledged as a variation, notify without delay (maximum period 7 days), and do not proceed until instructed. Claims for extra cost, if made after the variation has been carried out, may not be allowed.

A32 MANAGEMENT OF THE WORKS GENERALLY

110 SUPERVISION

- General: Accept responsibility for coordination, supervision and administration of the Works, including subcontracts.
- Coordination: Arrange and monitor a programme with each subcontractor, supplier, local authority and statutory undertaker, and obtain and supply information as necessary for coordination of the work.

112 PROGRAMME

- Contractor is to provide Gantt charts and a programme of work.

115 CONSIDERATE CONSTRUCTORS SCHEME

- Registration: Before starting work, register the site and pay the appropriate fee:
- Contact:
 - Address: Considerate Constructors Scheme Office, PO Box 75, Great Amwell, Ware, Hertfordshire, SG12 0YX.
 - Tel. 01920 485959.
 - Fax. 01920 485958.
 - Free phone 0800 7831423.
 - Web. www.ccscheme.org.uk
- Standard: Comply with the Scheme's Code of Considerate Practice.
 - Minimum compliance level: Good

120 INSURANCE

- Documentary evidence: Before starting work on site submit details, and/ or policies and receipts for the insurances required by the Conditions of Contract.

130 INSURANCE CLAIMS

- Notice: If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the Works or injury or damage to persons or property arising out of the Works, immediately give notice to the Employer.

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- Failure to notify: Indemnify the Employer against any loss, which may be caused by failure to give such notice.

132 EXISTING CAR PARK

- Notice: The existing car park may not be used for storage, for the unloading of materials and will not form part of the contractors compound.
- The car park will remain open to the public during the works period, however, may be closed on request, for a short duration.

140 CLIMATIC CONDITIONS

- Information: Record accurately and retain:
 - Delays due to adverse weather, including description of the weather, types of work affected and number of hours lost.

150 OWNERSHIP

- Alteration/ clearance work: Materials arising become the property of the Contractor except where Remove from site as work proceeds.

310 EXTENSIONS OF TIME

- Notice: When a notice of the cause of any delay or likely delay in the progress of the Works is given under the conditions of contract, written notice must also be given of all other causes which apply concurrently.
- Details: As soon as possible submit:
 - Relevant particulars of the expected effects, if appropriate, related to the concurrent causes.
 - An estimate of the extent, if any, of the expected delay in the completion of the Works beyond the date for completion.
 - All other relevant information required.

A33 QUALITY STANDARDS/ CONTROL STANDARDS OF PRODUCTS AND EXECUTIONS

110 INCOMPLETE DOCUMENTATION

- General: Where and to the extent that products or work are not fully documented, they are to be:
 - Of a kind and standard appropriate to the nature and character of that part of the Works where they will be used.
 - Suitable for the purposes stated or reasonably to be inferred from the project documents.
 - Contract documents: Omissions or errors in description and/ or quantity shall not vitiate the Contract nor release the Contractor from any obligations or liabilities under the Contract.

120 WORKMANSHIP SKILLS

- Operatives: Appropriately skilled and experienced for the type and quality of work.
- Registration: With Construction Skills Certification Scheme.
- Evidence: Operatives must produce evidence of skills/ qualifications when requested.

130 QUALITY OF PRODUCTS

- Generally: New (Proposals for recycled products may be considered).
- Supply of each product: From the same source or manufacturer.

• Whole quantity of each product required to complete the

Works: Consistent in kind, size, quality and overall appearance.

- Tolerances: Where critical, measure a sufficient quantity to determine compliance.
- Deterioration: Prevent. Order in suitable quantities to a programme and use in appropriate sequence.

135 QUALITY OF EXECUTION

- Generally: Fix, apply, install or lay products securely, accurately, plumb, neatly and in alignment.
- Colour batching: Do not use different colour batches where they can be seen together.
- Dimensions: Check on-site dimensions.
- Finished work: Not defective, e.g. not damaged, disfigured, dirty, faulty, or out of tolerance.
- Location and fixing of products: Adjust joints open to view so they are even and regular.

ACCURACY/ SETTING OUT GENERALLY

320 SETTING OUT

- General: Submit details of methods and equipment to be used in setting out the Works.
- Levels and dimensions: Check and record the results on a copy of drawings. Notify discrepancies and obtain instructions before proceeding.
- Inform: When complete and before commencing construction.

330 APPEARANCE AND FIT

- Tolerances and dimensions: If likely to be critical to execution or difficult to achieve, as early as possible either:
 - Submit proposals; or
 - Arrange for inspection of appearance of relevant aspects of partially finished work.
- General tolerances (maximum): To BS 5606, tables 1 and 2.

610 PROPOSALS FOR RECTIFICATION OF DEFECTIVE PRODUCTS/ EXECUTIONS

- Proposals: Immediately any execution or product is known, or appears, to be not in accordance with the Contract, submit proposals for opening up, inspection, testing, making good, adjustment of the Contract Sum, or removal and re-execution.
- Acceptability: Such proposals may be unacceptable and contrary instructions may be issued.

WORK AT OR AFTER COMPLETION

710 WORK BEFORE COMPLETION

- General: Make good all damage consequent upon the Works.
 - Temporary markings, coverings and protective wrappings: Remove unless otherwise instructed.
- Cleaning: Clean the Works thoroughly inside and out, including all accessible ducts and voids. Remove all splashes, deposits, efflorescence, rubbish and surplus materials.
- Cleaning materials and methods: As recommended by manufacturers of products being cleaned, and must not damage or disfigure other materials or construction.

- COSHH dated data sheets: Obtain for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.
- Minor faults: Touch up in newly painted work, carefully matching colour and brushing out edges. Repaint badly marked areas back to suitable breaks or junctions.

720 SECURITY AT COMPLETION

- General: Leave the Works secure with, where appropriate, all accesses closed and locked.

730 MAKING GOOD DEFECTS

- Remedial work: Arrange access with the Employer.
- Rectification: Give reasonable notice for access to the various parts of the Works.
- Completion: Notify when remedial works have been completed.

A34 SECURITY/ SAFETY/ PROTECTION

SECURITY, HEALTH AND SAFETY

110 PRECONSTRUCTION INFORMATION

- Location: Contained in Appendix B of this document

120 EXECUTION HAZARDS

- Common hazards: Not listed. Control by good management and site practice.

130 PRODUCT HAZARDS

- Hazardous substances: Site personnel levels must not exceed occupational exposure standards and maximum exposure limits stated in the current version of HSE document.
- EH40: Workplace Exposure Limits.
- Common hazards: Not listed. Control by good management and site practice.

150 SECURITY

- Protection: Safeguard the site, the Works, products, materials, damage and theft.
- Access: Take all reasonable precautions to prevent unauthorized access to the site, the Works and adjoining property.

PROTECT AGAINST THE FOLLOWING

310 EXPLOSIVES

Use: Not permitted

330 NOISE AND VIBRATION

- Standard: Comply with the recommendations of BS 5228-1, in particular clause 7.3, to minimize noise levels during the execution of the Works.
- Equipment: Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
- Restrictions: Do not use:
 - Pneumatic drills and other noisy appliances without consent during the hours of 19.00 to 08.00.
 - Radios or other audio equipment or permit employees to use in ways or at times that may cause nuisance.

340 POLLUTION

- Prevention: Protect the site, the Works and the general environment including the atmosphere, lands, streams and waterways against pollution.
- Contamination: If pollution occurs inform immediately, including to the appropriate Authorities and provide relevant information.

350 PESTICIDES

- Use: Not permitted.

360 NUISANCE

- Duty: Prevent nuisance from smoke, dust, rubbish, vermin and other causes.
- Surface water: Prevent hazardous build-up on site, in excavations and to surrounding areas and roads.

375 ANTIQUITIES

- Duty: Report immediately any fossils, antiquities and other objects of interest or value discovered during execution of the works.
- Preservation: Keep objects in the exact position and condition in which they were found.

380 FIRE PREVENTION

- Duty: Prevent personal injury or death, and damage to the Works or other property from fire.
- Standard: Comply with Joint Code of Practice 'Fire Prevention on Construction Sites', published by the Construction
- Confederation and The Fire Protection Association (The 'Joint Fire Code').

390 SMOKING ON SITE

- Smoking on site: Not permitted.

400 BURNING ON SITE

- Burning on site: Not permitted.

430 WASTE

- Includes: Rubbish, debris, spoil, surplus material, containers and packaging.
- General: Minimize production. Prevent accumulations. Keep the site and Works clean and tidy.
- Handling: Collect and store in suitable containers. Remove frequently and dispose off site in a safe and competent manner:
 - Non-hazardous material: In a manner approved by the Waste Regulation Authority.
 - Hazardous material: As directed by the Waste Regulation Authority and in accordance with relevant regulations.
- Recyclable material: Sort and dispose at a Materials Recycling Facility approved by the Waste Regulation Authority.
- Voids and cavities in the construction: Remove rubbish, dirt and residues before closing in.
- Waste transfer documentation: Retain on site.

A34 PROTECT THE FOLLOWING

510 EXISTING SERVICES

- Confirmation: Notify all service authorities, statutory undertakers and/ or adjacent owners of proposed works not less than one week before commencing site operations.
- Identification: Before starting work, check and mark positions of utilities/ services. Where positions are not shown on drawings obtain relevant details from service authorities, statutory undertakers or other owners.
- Attention is drawn to the existing services running diagonally across the site as shown on drawing 0752.03B.
- Work adjacent to services:
 - Comply with service authority's/ statutory undertaker's recommendations.
 - Adequately protect, and prevent damage to services: Do not interfere with their operation without consent of service authorities/ statutory undertakers or other owners.
- Identifying services:
 - Below ground: Use signboards, giving type and depth;
 - Overhead: Use headroom markers.
- Damage to services: If any results from execution of the Works:
 - Immediately give notice and notify appropriate service authority/ statutory undertaker.
 - Make arrangements for the work to be made good without delay to the satisfaction of service authority/ statutory undertaker or other owner as appropriate.
 - Any measures taken to deal with an emergency will not affect the extent of the Contractor's liability.
- Marker tapes or protective covers: Replace, if disturbed during site operations, to service authority's/ statutory undertaker's recommendations.

520 ROADS AND FOOTPATHS

- Duty: Maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris.
- Damage caused by site traffic or otherwise consequent upon the Works: Make good to the satisfaction of the Employer, Local Authority or other owner.

530 EXISTING TOPSOIL/ SUBSOIL

- Duty: Prevent over compaction of existing topsoil and subsoil in those areas which may be damaged by construction traffic, parking of vehicles, temporary site accommodation or storage of materials and which will require reinstatement prior to completion of the Works.
- Protection: Before starting work submit proposals for protective measures.

540 RETAINED TREES/ SHRUBS/ GRASSED AREAS

- Protection: Preserve and prevent damage, except those not required.
- Replacement: Mature trees and shrubs if uprooted, destroyed, or damaged beyond reasonable chance of survival in their original shape, as a consequence of the Contractor's negligence, must be replaced with those of a similar type and age at the Contractor's expense.

A34

550 RETAINED TREES

- Protected area: Unless agreed otherwise do not:

munro + whitten Dump soil or rubbish, excavate or disturb topsoil, park vehicles or plant, store

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materials or place temporary accommodation within an area which is the larger of the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk.

- Sever roots exceeding 25 mm in diameter. If unintentionally severed give notice and seek advice.
- Change level of ground within an area 3 m beyond branch spread.

560 EXISTING FEATURES

- Protection: Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features, which are to remain in position during execution of the Works.

570 EXISTING WORK

- Protection: Prevent damage to existing car park, kerbs, access road and structures or other property during the course of the work.
- Capacity of existing access road and car park: maximum 40 tonnes.
- Replacement work: To match existing.

640 MATERIALS FOR RECYCLING/ REUSE

- Duty: Sort and prevent damage to stated products or materials, clean off bedding and jointing materials and other contaminants.
- Storage: Stack neatly and protect until required by the Employer or for use in the Works as instructed.

A35 SPECIFIC LIMITATIONS ON METHOD/ SEQUENCE/ TIMING

110 SCOPE

- General: The limitations described in this section are supplementary to limitations described or implicit in information given in other sections or on the drawings.

170 WORKING HOURS

- Specific limitations: Normal working hours.

A36 FACILITIES/ TEMPORARY WORK/ SERVICES GENERALLY

110 SPOIL HEAPS, TEMPORARY WORKS AND SERVICES

- Location: Give notice and details of intended siting.
- Maintenance: Alter, adapt and move as necessary. Remove when no longer required and make good.

TEMPORARY WORKS

310 ROADS

- Permanent roads, hard standings and footpaths on the site:
- The following may be used, subject to clause A34/520:
 - Details: Access road.
 - Restrictions on use: Access only.
 - Protective or remedial measures: Kept clean and swept regularly.

330 TEMPORARY PROTECTION TO EXISTING TREES/ VEGETATION

- Temporary protection: Refer to drawings contained in Appendix A of this document.
- Protective barriers and any other relevant physical protection measures: To BS 5837.

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of the works and make good disturbed area.

SERVICES AND FACILITIES

A36

420 LIGHTING AND POWER

- Supply: No on site provision- contractor to provide own.

430 WATER

- Supply: TBC
- Continuity: The Employer will not be responsible for the consequences of failure or restriction in supply.

SPECIFICATION FOR HARDWORKS

NOTES:

1. To be read in conjunction with m+w drawing.

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P30 TRENCHES, PIPEWAYS AND PITS FOR BURIED ENGINEERING SERVICES

To be read with Preliminaries/ General conditions.

10 ROUTES OF WATER PIPE TO WATERING POINTS

- Locations of new service runs: Submit proposals to reflect drawing 0752.03B
- Temporary marking: Indicate service runs with marker posts.

20 TRENCHES

- Width: As small as practicable.
- Trench sides: Vertical.
- Trench bottoms: Remove mud, rock projections, boulders and hard spots. Trim level.
- Give notice: To inspect trench for each section of the work.

50 BACKFILLING

- Backfill from top of pipe duct surround: Material excavated from the trench.
- Backfilling: Lay and compact in 300 mm maximum layers. Do not use heavy compactors before backfill is 600 mm deep.

329 PIPES, BENDS AND JUNCTIONS - SUPPLY

- Pipes and fittings: From same manufacturer for each pipeline.
- Sizes: To match existing water supply.

347 STANDPIPE

- Type: ½ inch hose union bib top stand pipe with double check valve.
- Standard: BS 6282
- Manufacturer: Contractor's choice.
- - Product reference: Contractor's choice.
- Mounting: on 600mm above ground concrete pillar. Proposed manufacturer to be submitted for approval.

683 LAYING PIPELINES

- Laying pipes: To true line and regular gradient on even bed for full length of barrel with sockets (if any) facing up the gradient.
- Ingress of debris: Seal exposed ends during construction.
- Timing: Minimize time between laying and testing.

685 JOINTING PIPELINES

- Connections: Durable, effective and free from leakage.
 - Junctions, including to differing pipework systems: With adaptors intended for the purpose.
 - Cut ends of pipes: Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.
 - Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
 - Allowance for movement: Provide and maintain appropriate clearance at ends of spigots as fixing and jointing proceeds.
- Jointing material: Do not allow to project into bore of pipes and fittings.

Q10 KERBS/ EDGINGS/ CHANNELS/ PAVING ACCESSORIES TO BE READ WITH PRELIMINARIES/ GENERAL CONDITIONS.

TYPES OF KERBS/EDGINGS

110 PROPRIETARY PRECAST CONCRETE KERBS TO PATHS

- Standard: To BS EN 1340.
- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Recycled content: Permitted to BS EN ISO 14021.
- Designations: Flat top kerb
- Size (width x height x length): 50 x 150 x 914 mm.
- Special shapes: Internal angle BNIA.
- Finish: As cast.
- Colour: Natural.
- Bedding: Insitu concrete races.
- Joints generally: Dry, 2-3 mm gap.
- Sealant movement joints: Not required.
- Accessories: None.

110A TIMBER SLEEPER KERB TO ROAD

- To match existing car park kerb.
- Supplier: Coltman Bros. or similar approved
 - **Coltman Bros.**
 - Old Station Yard, Ashby Magna, Lutterworth, Leicestershire LE17 5NH
 - Tel: 01455 209038 Fax: 01455 209141
- Product reference: New Timber Sleeper
- Size (width x height x length): 127x 254x 4800mm
- Treatment: Pressure treated
- Colour: Natural- to match car park.
- Sample to be supplied
- Bedding: Concrete bed 125mm
- Joints generally: Dry, 2-3 mm gap, mitred/angled to suit curves.
- Sealant movement joints: Not required.

LAYING

510 LAYING KERBS, EDGINGS AND CHANNELS

- Cutting: Neat, accurate and without spalling. Form neat junctions.
 - Long units (450 mm and over) minimum length after cutting: 300 mm.
 - Short units minimum length after cutting: The lower of one third of their original length or 50 mm.
- Bedding of units: Positioned true to line and levelled along top and front faces, in a mortar bed on accurately cast foundations or on a race of fresh concrete.
- Securing of units: After bedding has set, secured with a continuous haunching of concrete or on a race of fresh concrete with backing concrete cast monolithically.
-

520 ADVERSE WEATHER

- Conditions: Do not construct if the temperature is below 3°C on a falling thermometer or 1°C on a rising thermometer. Adequately protect foundations, bedding and haunching against frost and rapid drying by sun and wind.

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530A CONCRETE FOR FOUNDATIONS, RACES AND HAUNCHING

- Standard: To BS 8500-2.
- Designated mix: Standard mix ST4.
- Workability: Very low.

620 ACCURACY

- Deviations (maximum):
 - Level: ± 6 mm.
 - Horizontal and vertical alignment: 3 mm in 3 m.

Q20 GRANULAR SUB-BASES TO ROADS/ PAVINGS

TO BE READ WITH PRELIMINARIES/ GENERAL CONDITIONS.

140 EXCAVATION OF SUBGRADES

- Final excavation to formation or subformation level: Carry out immediately before compaction of subgrade.
- Soft spots and voids: Give notice.
- Old drainage and service trenches: Excavate to remove soft or damaged material, then backfill with specified granular sub-base material and compact..
- Wet conditions: Do not excavate or compact when the subgrade may be damaged or destabilized.

150 SUBGRADES FOR VEHICULAR AREAS

- Preparation and treatment: To Highways Agency 'Specification for highway works', clauses 616 and 617.

170 GEOTEXTILE FILTER/ SEPARATOR MEMBRANE as indicated on drawings

- Manufacturer: TERRAM or similar.
 - Product reference: T2000.
- Jointing: 300 mm overlap.
- Protect from:
 - Exposure to light, except during laying (maximum five hours).
 - Contaminants.
 - Materials listed as potentially deleterious by geotextile manufacturer.
 - Damage, until fully covered by fill.
 - Wind uplift, by laying not more than 15 m before covering with fill.
- Preparation: Remove humps and sharp projections and fill hollows before laying.

210 HIGHWAYS AGENCY TYPE 1 UNBOUND MIXTURE FOR SUB-BASE

- Material: Type 1 unbound mixture to Highways Agency 'Specification for highway works', clauses 801 and 803.
 - Recycled aggregate: Not permitted.

310 ACCURACY

- Permissible deviation from required levels, falls and cambers (maximum):
 - Subgrades:
 - Roads and parking areas: +20 -30 mm.
 - Footways and recreation areas: ± 20 mm.
 - Sub-bases:
 - Roads and parking areas: ± 20 mm.
 - Footways and recreation areas: ± 12 mm .

340 PROTECTION

- Sub-bases: As soon as practicable, cover with subsequent layers, specified elsewhere.
- Subgrades and sub-bases: Prevent degradation by construction traffic, construction operations and inclement weather.

Q23 GRAVEL/ HOGGIN/ WOODCHIP ROADS/ PAVINGS TO BE READ WITH PRELIMINARIES/ GENERAL CONDITIONS.

TYPES OF SURFACING

129 SELF BINDING GRAVEL ROAD

- On well compacted subgrade lay Geotextile membrane to base and sides.
 - Manufacturer: Terram or similar approved
 - Product: T2000 or similar approved.
- Granular sub-base: Highways Agency Type 1.
 - Compacted thickness: Minimum 250mm.
- Binder course: 10mm angular gravel
 - Depth: 50mm
- Aco Ground Guard (See section Q35/110A)
- Surface course:
 - Manufacturer: GRS Stone Supplies.
 - Compacted thickness: 50mm.
 - Chippings: 6-14mm
 - Colour: Golden
 - Application:
 - Binder: Uniformly at a rate as per manufacturers' recommendation.
 - Clean chippings: Cover at a rate as per manufacturers' recommendation.
 - Sample: Gravel to match existing, sample to be provided.

130 BREEDON SELF BINDING GRAVEL TO PATHS

- On well compacted subgrade lay Geotextile membrane
 - Manufacturer: Terram or similar approved
 - Product: T2000 or similar approved.
- Granular sub-base: Highways Agency Type 1.
 - Compacted thickness: Minimum 200mm.
- Surface course:
 - Manufacturer: Breedon Gravel
 - Compacted thickness: 50mm.
 - Chippings: 12mm to fine
 - Colour: Golden
 - Application:
 - Binder: Uniformly at a rate as per manufacturers' recommendation.
 - Clean chippings: Cover at a rate as per manufacturers' recommendation.

170 GEOTEXTILE FILTER/ SEPARATOR MEMBRANE

- Manufacturer: TERRAM or similar.
 - Product reference: T2000.
- Jointing: 300 mm overlap.
- Protect from:
 - Exposure to light, except during laying (maximum five hours).
 - Contaminants.
 - Materials listed as potentially deleterious by geotextile manufacturer.
 - Damage, until fully covered by fill.
 - Wind uplift, by laying not more than 15 m before covering with fill.
- Preparation: Remove humps and sharp projections and fill hollows before laying.

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LAYING

315 MATERIALS

- Compatibility: Chippings suitable for use with respective binders/emulsions.

320 SAMPLES

- Submit: Representative samples of all chippings.

320 LAYING GENERALLY

- Channels, gullies, etc: Keep clear.
- Finished surfaces:
- Lines and levels: To prevent ponding. - Overall texture: Even.
- State at completion: Clean.

350 COLD WEATHER WORKING

- Frozen materials: Do not use.
- Freezing conditions: Do not lay pavings.

360 DRAINAGE FALLS

- Falls and cross falls (minimum): 1:40.
- Camber (minimum): 1:50.
- Unsealed surfaces (minimum): 1:30.

380 LAYING GRANULAR SURFACES

- Permissible deviation from required levels, falls and cambers (maximum): ± 12 mm.
- General: Spread and level in 100 mm maximum layers. As soon as possible, compact each layer.
- Dry weather: Lightly water layers during compaction.

Q24 INTERLOCKING BRICK/ BLOCK ROADS/ PAVINGS TO BE READ WITH PRELIMINARIES/ GENERAL CONDITIONS.

TYPES OF PAVING

110A PRECAST CONCRETE FLAG PAVING TO CREMATION PLOTS

- Sub-base: 200mm deep well compacted MOT Type 1
- Laying course:
 - Material: 6-14mm GRS Golden Gravel
 - Nominal thickness after compaction: 50 mm.
 - Lay on Geotextile Terram 1000 or similar
 - Flag paving: To BS EN 1339: 2003.
 - Requirements: Slip/ skid resistance class: S3.
 - Manufacturer: Marshalls (or similar approved)
 - Product: Standard Paving
 - Sizes: 600x600x50mm
 - Colour/ Finish: Buff or grey (Colour to be confirmed by client/employer)
 - Sample to be supplied for approval by client/employer.
 - Accessories: None.
 - To be laid in a chequer board grid see drawing 0752.04 for details.

EXECUTION

200 EXECUTION GENERALLY - CONCRETE BLOCK AND CLAY PAVER PAVING

- Standard: In accordance with BS 7533-3.

240 ADVERSE WEATHER

- General: Do not use frozen materials or lay bedding on frozen or frost covered sub-bases.

451 LAYING GEOTEXTILE SHEET FOR FLAG PAVING

- Jointing: Lap by 300mm.

485 LAYING FLAG PAVING

- Setting out: To dimensions to suit paving modules with allowance for joints.
- Start from an edge restraint. Cutting: Cleanly, accurately and vertically, without spalling. Do not mark or damage visible surfaces.
- No cutting of flags permitted.
- In situ mortar or concrete infill: Do not use.

500 REGULARITY OF PAVED SURFACES

- Maximum variation in gap under a 3 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface):
- Precast concrete paving blocks and clay pavers for flexible pavements: 10 mm.
- Difference in level between adjacent paving units (maximum): 2 mm.
- Sudden irregularities: Not permitted.

505 REGULARITY OF PAVED SURFACES

- Maximum undulations in the surface of pavings (except tactile paving surfaces) under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface): 3 mm.
- Joints flush with the surface: difference in level between adjacent units to be no more than twice the joint width (with a 5 mm max difference in level).

2mm; the recess to be no deeper than 5 mm.

- Unfilled joints: difference in level between adjacent units to be no greater than 2 mm.
- Sudden irregularities: Not permitted.

662 ADVERSE WEATHER

- General: Do not use frozen materials and do not lay on frozen surfaces.
- Working limits: Do not lay blocks/ dressings: Cement gauged mortars: When the air temperature is at or below 3°C and falling or below 1°C and rising (unless mortar has a temperature of not less than 4°C when laid and work is thoroughly protected).
- Temperature of the work: Maintain above freezing until mortar has fully set.
- Newly erected work: Protect from precipitation; Prevent rapid drying in hot conditions.
- Remedial work: Rake out and replace mortar damaged by frost.
- Damaged work: Rebuild.

COMPLETION

615 COMPLETION OF PAVING

- - Final compaction of the surface course: In accordance with BS 7533-3.
- - On completion all wheeled traffic movements, parking and unloading are prohibited from completed pavements. If required lay temporary plywood protective sheeting.

Q28 TOPSOIL AND SOIL AMELIORANTS

100 GENERAL

- 100.1 The Contractor shall be responsible for all necessary measures to protect the Works until handed over on completion. The Contractor shall be responsible for the protection of all existing trees and other features to be retained and shall erect temporary protective fencing in areas where required.
- 100.2 Existing features to be retained shall not be removed.
- 100.3 Every precaution shall be taken to avoid damage during operations and particular care shall be exercised at all times to safeguard all trees, vegetation and the features required to be preserved.
- 100.4 Branches to be dealt with only on approval and by approved tree surgeons.
- 100.5 Should the roots of any tree project into an excavation great care shall be taken to avoid damage to the roots. If the cutting of any root exceeding 50mm girth be deemed necessary, the approval must be first obtained.
- 100.6 The Contractor will be held responsible for any damage to trees, shrubs or hedges caused by his negligence. In the case of minor superficial damage, the Contractor shall arrange for any necessary surgery to be carried out by an approval specialist. Should damage to any tree, shrub or hedge result in its death or serious disfigurement it shall be removed and replaced as the Supervising Officer may direct. As a general principle, replacement of shrubs or hedging shall be of sufficient numbers to give the same density of cover as previously existed.
- Replacement of each existing tree shall be at the minimum rate of one 25-30cm girth, deciduous semi-mature tree for each 3 metres height of the existing tree to be replaced.
- 100.7 All costs involved in complying with this clause shall be at the Contractor's own expense.

120 GROUND CONDITIONS

- 120.1 Work shall be carried out when ground conditions are reasonably dry to prevent damage to the soil structure. This applies to topsoil and subsoil.
- 120.2 All soil handling operations (e.g. soil stripping, stockpiling, re-spreading, cultivation, amelioration) shall only be carried out when the soil is friable (nonplastic) in consistency (at least 5% below the Lower Plastic Limit).
- 120.3 All soil handling shall be stopped during and after rainfall, and not continued until the soil has dried out sufficiently.

EXISTING SOILS: STRIP AND STORAGE

150 TOPSOIL STRIP

- 150.1 Vegetation from areas to be stripped to be removed either by a) herbicide application or b) stripping of top layer. Herbicide application for vegetation removal to be adopted as preferred method where there is sufficient time for translocated chemicals to take effect and weather conditions permit.
- 150.2 Spray out all areas (except to flood zone) of weed growth and grass within areas to be stripped using an appropriate non-residual, contact herbicide (e.g. Glyphosate). A BASIS qualified contractor should be appointed to carry out all herbicide treatments. Attention to the requirements under current C.O.S.H.H. and any other relevant Health and Safety regulations should be adhered to. Allow sufficient time for translocated chemicals to take full effect and then mow or trim off dead aerial growth and remove cuttings from site.
- 150.3 Where weather conditions do not permit and there is insufficient time to allow translocated chemicals to take effect, the grass sward in topsoil strip areas is to be stripped to a depth of 50mm and removed to an off site tip prior to topsoil stripping.
- 150.4 Any stones (>50mm), waste, non-topsoil materials or spoil heaps shall be removed from areas to be stripped prior to topsoil stripping.
- 150.5 Vehicles used for stripping shall not track over areas of topsoil that are to be incorporated into the strip.
- 150.6 All stripping operations shall only be carried out when the soil is friable (nonplastic) in consistency (at least 5% below the Lower Plastic Limit). All soil handling shall be stopped during and after rainfall, and not continued until the soil has dried out sufficiently.
- 150.7 All topsoil shall be stripped using the 'loose-tipping' method (unless otherwise agreed), which involves the use of a tracked excavator and dump trucks. A tracked hydraulic excavator, fitted with a wide, flat edged ditching/grading bucket, shall be used to strip the topsoil and load it into a dump truck. A tracked dozer should NOT be used to strip the topsoil unless otherwise agreed. The dump truck, running along a predesignated route, should then transport the topsoil to the designated stockpile location.
- 150.8 The stripped topsoil shall not be contaminated in any way and shall be kept free of all debris, subsoil, chemical substances, and harmful liquids, including diesel. Any such contamination will result in topsoil being rejected for use on site and removed at contractors own cost.

160 TOPSOIL STORAGE

- 160.1 Topsoil shall be stored in an area of the site where it shall not interfere with other site operations so that it can be left undisturbed during the construction process.
- 160.2 No topsoil shall be stored or spread in the flood zone as identified on drawing 0752.03B.

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160.3 The area that is to be used for storing the topsoil shall be cleared of vegetation.

160.4 Any in-situ topsoil present at the storage location shall also be stripped prior to stockpiling.

160.5 All soil shall be stockpiled using the 'loose-tipping' method. The soil, having been transported to the storage area in a dump truck, shall be "loose-tipped" in a line of heaps to form a windrow.

210 SUBSOIL FORMATION

210.1 The following measures are necessary for the successful establishment of softworks

210.2 Grade subsoil to smooth flowing contours free from localised depressions, high spots and all abrupt angles at changes of level to achieve the specified finished levels after topsoiling. Excavate locally as necessary for areas of thicker topsoil.

210.6 Subsoil depths below topsoil shall be a minimum 250mm depth of subsoil.

SUBSOIL AMELIORATION

220 SUBSOIL RIPPING

220.1 All subsoil surfaces shall be ripped and cross-ripped with a subsoil ripper prior to topsoiling. Rips shall be made at 90 degrees in 2 directions, and at 45 degrees to direction of slopes on mounds from the toe of the mound to the ridge line or high point.

220.2 Ripping shall be done during the summer or dry periods with a low water table, when there are dry ground conditions.

220.3 Loosen subsoil consisting of light, non-cohesive material with a 3 tine ripper, drawn 300mm deep at 600mm centres.

220.4 Loosen subsoil consisting of stiff clays or other cohesive material with a single tine ripper, driven 450mm deep at 1m centres.

220.5 In confined areas to be ripped, the Contractor shall use the appropriate machinery and equipment to entirely break up the subsoil surface to a depth of 400mm e.g. a tracked excavator with a single tine ripper attachment.

TOPSOIL SPREADING

230 TOPSOIL SPREADING AND DEPTHS

230.1 No topsoil to be spread within the flood zone as identified that would change levels or contours.

230.2 Topsoil to be spread in the internal areas with road and between the paths.

230.3 Topsoil shall be free of stones or debris over 50mm measured in any direction, including clay or subsoil lumps of similar size.

230.4 All topsoil shall be re-spread using the 'loose-tipping' method. A tracked hydraulic excavator fitted with a toothed-bucket shall be used to load the topsoil from the stockpile into a dump truck. The dump truck shall transport the topsoil to the desired location and tip it in a line of heaps. The topsoil shall be spread by a second tracked excavator working from the subsoil layer.

230.5 Topsoil shall be spread to smooth flowing contours with falls for adequate drainage and removing any minor hollows or ridges. If the topsoil is not anaerobic the topsoil shall be spread in up to 200mm layers and lightly firmed using the bucket. If the topsoil is anaerobic (olive grey colour and distinct sour odour) when removed from the stockpile, the soil shall be spread and left unfirmed to allow it to re-aerate. Only when the soil has regained its brown coloration and lost its sour odour shall it be firmed.

230.6 The soil shall be spread and cultivated when friable in consistency and topsoil handling shall be stopped during and after rainfall, and not continued until it has dried out sufficiently.

230.7 Overall minimum depths after firming and settlement to be:
1. 150mm – for grass areas

Finished levels of topsoil after settlement, unless otherwise stated, to be:

1. 50mm above adjoining paving or kerbs
4. Married-in with adjoining soil areas

230.8 After topsoiling:

1. Cultivate the topsoil surface of planted areas using a tractor drawn agricultural cultivator (e.g. power harrow, rigid/spring tine harrow, coil press) to a depth of 250-300mm and keep all areas clean. Areas inaccessible for tractors shall be cultivated by mini-excavator with ripper attachment, or by hand-held tiller or by hand forking.
2. Grade to falls and leave topsoil with a medium tilth (50mm or less).
3. In grass areas, cultivate the topsoil to a depth of 150mm to produce a fine tilth (10mm or less) suitable for turfing or seeding (e.g. using a hand tiller, chain harrow or leveling harrow).
4. Rotovators shall not be used to cultivate any soil.
5. Remove undesirable material brought to the surface including stones and any fill materials and other foreign matter larger than 50mm in any dimension.
6. No debris or rubbish shall be spread nor vehicles allowed to pass over completed areas to avoid compaction of the finished surfaces, by erection of temporary chestnut pale fencing as necessary to exclude all vehicular access.

Q35 INTERLOCKING BRICK/BLOCK ROADS/PAVING

TYPES OF PAVING

110A PLASTICS PAVERS

- Manufacturer: ACO Technologies plc,
ACO Business Park,
Hitchin Road,
Shefford,
Bedfordshire, SG17 5TE
- Tel +44 (0)1462 816666
Fax +44 (0)1462 815895
- Product: Ground Guard
- Size: 585x 385x 38mm
- Load Class: 40 tonnes per m2
- Finish/Colour: Black 100% recycled UV resistant plastic.

EXECUTION

485 LAYING BLOCKS/ PAVERS/ SETTS

- Setting out: Start from an edge restraint.
- Cutting: Cleanly, accurately and vertically, without spalling. Do not mark or damage visible surfaces.
- Cut edges: Turn inwards where possible; do not position against edge restraints or other features.

R13 LAND DRAINS

To be read with Preliminaries/ General conditions.

DRAINS

220 FILTER DRAINS WITH PIPE AND GEOTEXTILE TRENCH LINING

- Trench size:
 - Depth: 600 mm.
 - Width: 450 mm.
- Geotextile trench lining:
 - Manufacturer: TERRAM or similar.
- Product reference: T2000.
- Pipe bedding: Granular surround and backfill - subsoil drains - precision graded.
 - Recycled content of granular material: Max 25%.
- Pipes: Plastics to BS 4962, Kitemark certified, perforated.
 - Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
 - Sizes: 100mm diameter
 - Recycled content of plastics pipes: Contractor's choice.
 - Perforations: Up.
- Pipe surround and backfill:
 - Material: Granular surround and backfill - subsoil drains - precision graded.
 - Recycled content of granular material: Max 25% permitted.
 - Level: To within 450 mm of finished ground level. Cover with geotextile membrane.
- Filling to finished ground level: Backfill material.
- Outfall
 - Preformed proprietary unit to suit field drain plus trench and pipe size.

350 LAYING PIPES

- Weather conditions: Lay pipes in good weather using methods suitable for the site conditions.
 - Plastics pipes: Do not lay or backfill at temperatures lower than 5°C.
 - Soil structure: Prevent compaction, smearing, top ponding, rutting and damage.
- General: Lay to line and gradient on a firm bed free from loose soil to give a free draining installation without backfalls. Do not lay on soil backfill or in slurry.
- Drains closer than 6 m to trees or hedges: Unperforated pipes with positively sealed joints and as-dug backfill.
- Junctions between branches and mains: Purpose made components.
- Upper ends of drain runs: Plug to prevent ingress of soil or animals.
- Backfilling: Do not damage, distort or displace pipes.

EXCAVATING/ BEDDINGS/ SURROUNDS/ BACKFILL

515 EXISTING LIVE LAND DRAINS

- Drains exposed by excavation: Mark positions.
- Cutting out: Carefully break back piped drains to an undisturbed section.
- Reconnection: Connect exposed drain to new work.
- Record drawing: Show position of exposed system and new connections. Submit copy.
-

525 GRANULAR BEDS

- Compacted thickness (minimum): 50 mm.
- Laying pipes: Scoop out locally at couplings and sockets and lay pipes digging slightly into bed and resting uniformly on their barrels.

531 GRANULAR SURROUND AND BACKFILL - SUBSOIL DRAINS - PRECISION GRADED

- Material: Coarse aggregate to BS EN 13242:
- Nominal pipe diameter up to 140 mm: Size 4/10.
- Covering: Before topping off trench up to finished ground level, cap granular material with geotextile trench lining.

570 GEOTEXTILE TRENCH LINING

- Preparation: Trim trench. Remove sharp stones and other projections.
- Placing:
- Dressing geotextile: Uniformly to trench profile without stretching, perforation or rupture.
- Top of aggregate: Wrap free lengths of geotextile over top surface and overlap by 300 mm. Tuck top layer down trench side by 100 mm.

800 CLEANING

- General: Thoroughly flush out the whole of the installation with clean water to remove silt and debris immediately before handover.
- Washings and detritus: Dispose of safely. Do not discharge into sewers or watercourses.

SCHEDULE

ITEM		Fixed Charge	Time Related Charge
		£	£
	PRELIMINARIES		
A40	CONTRACTOR'S GENERAL COST ITEMS: MANAGEMENT AND STAFF		
110	MANAGEMENT AND STAFF		
A41	CONTRACTOR'S GENERAL COST ITEMS: SITE ACCOMMODATION		
110	SITE ACCOMMODATION Details: Site accommodation required or made/ not made available by the Employer: See section A36.		
A42	CONTRACTOR'S GENERAL COST ITEMS: SERVICES AND FACILITIES		
	Details: Services or facilities required or made/not made available by the Employer: See Section A36.		
A43	CONTRACTOR'S GENERAL COST ITEMS: MECHANICAL PLANT		
110	MECHANICAL PLANT		
A44	CONTRACTOR'S GENERAL COST ITEMS: TEMPORARY WORKS		
	Details: Temporary works required or made/ not made available by the Employer: See section A36.		
	HARDWORKS		
1.1	Details: To install new land drains across the site, make connection with land drains installed as part of installation works for the car park (see accompanying plan). Allowance to be made for the backfilling with subsoil and topsoil cover 150mm thick of the temporary soakaways installed with the car park.		
1.2	Details: To re-grade the site losing surplus top/subsoil to allow for natural falls of water towards the nearby watercourse. Note no topsoil or subsoil to be spread in flood zone.		
1.3	Details: To install paths and access road to specification.		
1.4	Details: To install water points and supply pipe runs allowing for connection with adjacent water point in existing cemetery.		
1.5	Details: To supply and install 3 Cremation Areas (see drawings.)		
	To Collection £		

Total Page 32

£ _____

Total

£ _____

VAT at 20%

£ _____

Grand Total

£ _____

Prepared by _____

Signed _____

Date _____

Witnessed: _____

*This quotation is to be valid for a period of twelve months.

APPENDIX A

TENDER DRAWINGS

0752.01 RevB	Landscape Proposals
0752.03	Crematorium Plot