

ANNEX 1 Bill of Quantities for Ground Investigation

Preamble amendments and additions

The following clauses are amended or added to the Preamble:

None

Bill A General items, provisional services and additional items

Number	Item description	Unit	Quantity	Rate	Amount £
A	General items, provisional sums and additional items				
A1	Offices and stores for the Contractor	sum	Not required		
A2	Establish on site all plant, equipment and services for a Green Category site	sum	1		
A3	Extra over Item A2 for a Yellow Category site	sum	1		
A4	Maintain on site all site safety equipment for a Yellow Category site	week	Not required		
A5	Decontamination of equipment during and at end of intrusive investigation for a Yellow Category site	sum	Not required		
A6	Appropriate storage, transport and off-site disposal of contaminated arisings and any PPE equipment, excluding laboratory testing	provisional sum			
A7	Provide professional attendance in accordance with Clause 3.5.2				
A7.1	Provide Technician	p.day	1		
A7.2	Provide Graduate Ground Engineer	p.day	Not required		
A7.3	Provide Experienced Ground Engineer	p.day	5		
A7.4	Provide Registered Ground Engineering Professional	p.day	Not required		
A7.5	Provide Registered Ground Engineering Specialist	p.day	Not required		
A7.6	Provide Registered Ground Engineering Advisor	p.day	Not required		
A8	Establish the location and elevation of the ground at each exploratory hole	sum	1		
A9	Preparation of Health and Safety documentation and Safety Risk Assessment	sum	1		
A10	Facilities for the Investigation Supervisor	sum	Not required		
A11	Vehicle(s) for the Investigation Supervisor	v.wk	Not required		
A12	Fuel for vehicle for the Investigation Supervisor	provisional sum	Not required		
A13	Investigation Supervisor's telephone and facsimile charges	provisional sum	Not required		
A14	Deliver selected cores and samples to the specified address	provisional sum	Not required		

Number	Item description	Unit	Quantity	Rate	Amount £
A15	Special testing and sampling required by Investigation Supervisor	provisional sum	Not required		
A16	Traffic safety and management	provisional sum	1		
A17	One master copy of the Desk Study Report	sum	Not required		
A18	Additional copies of the Desk Study Report	nr	Not required		
A19	One master copy of the Ground Investigation Report (or specified part thereof)	sum	1		
A20	Additional copies of the Ground Investigation Report (or specified part thereof)	nr	Not required		
A21	Electronic copy of Ground Investigation Report (or specified part thereof)	sum	1		
A22	One master copy of the Geotechnical Design Report (or specified part thereof)	sum	Not required		
A23	Additional copies of the Geotechnical Design Report (or specified part thereof)	nr	Not required		
A24	Electronic copy of Geotechnical Design Report in (or specified part thereof)	sum	Not required		
A25	Digital data in AGS transfer format	sum	1		
A26	Hard-copy photographs	nr	Not required		
A27	Photographic volume	nr	Not required		
A28	Long term storage of geotechnical samples (Appendix B)	provisional sum	Not required		
A29	Long term storage of geoenvironmental samples (Appendix B)	provisional sum	Not required		
	Contract specific additional bill items				
A30	Service clearance – appropriate technique the responsibility of the Contractor	Sum	1		
Total section A carried to summary					

Bill B Percussion Boring

Number	Item description	Unit	Quantity	Rate	Amount £
B	Percussion Boring				
B1	Move boring plant and equipment to the site of each exploratory hole and set up	nr	Not required		
B2	Extra over Item B1 for setting up on a slope of gradient greater than 20%	nr	Not required		
B3	Break out surface obstruction where present at exploratory borehole	h	Not required		
B4	Advance borehole between existing ground level and 10 m depth	m	Not required		
B5	As Item B4 but between 10 m and 20 m depth	m	Not required		
B6	As Item B4 but between 20 m and 30 m depth	m	Not required		
B7	As Item B4 but between 30 m and 40 m depth	m	Not required		
B8	As Item B4 but between 40 m and 50 m depth	m	Not required		
B9	Advance borehole through hard stratum or obstruction	h	Not required		
B10	Provide aquifer protection measures at a single aquiclude/aquifer boundary or cross contamination control measures at a single soil boundary in a borehole	nr	Not required		
B11	Backfill borehole with cement/bentonite grout or bentonite pellets	m	Not required		
B12	Standing time for borehole plant, equipment and crew <u>Dynamic sampling</u>	h	Not required		
B13	Move dynamic sampling equipment to the site of each exploratory hole and set up	nr	5		
B14	Extra over Item B13 for setting up on a slope of gradient greater than 20%	nr	Not required		
B15	Advance dynamic sample hole between existing ground level and 5 m depth	m	15		
B16	As Item B15 but between 5 m and 10 m depth	m	Rate Only		
B17	As Item B15 but between 10 m and 30 m depth	m	Not required		
B18	Standing time for dynamic sampling equipment and crew	hr	Rate only		
B19	Provision of dynamic sampling equipment and crew for sampling as directed by the Investigation Supervisor; maximum depth 15 m	day	Not required		
B20	Backfill dynamic sampling hole with cement/bentonite grout or bentonite pellets	m	15		
	Contract specific additional bill items				
	None				
Total section B carried to summary					

Bill C Rotary Drilling

Number	Item description	Unit	Quantity	Rate	Amount £
C	Rotary drilling				
	<u>Hand augering</u>		Not required		
	<u>Continuous flight and hollow stem flight augering</u>		Not required		
	<u>Rotary drilling with and without core recovery</u>				
C15	Move rotary drilling plant and equipment to the site of each exploratory drillhole and set up	nr	Included in B13		
C16	Extra over Item C15 for setting up on a slope of gradient greater than 20%	nr	Not required		
C17	Extra over Item C15 for setting up drilling plant for inclined drillhole	nr	Not required		
C18	Break out surface obstructions where present at exploratory drillhole	h	Not required		
C19	Standing time for rotary drilling plant, equipment and crew	h	Rate only		
C20	Provide aquifer protection measures at a single aquiclude/aquifer boundary in a drillhole	nr	Not required		
	<u>Drilling without cores</u>				
	<u>Drilling to obtain cores</u>				
C34	Rotary drill in materials other than hard strata to obtain cores of the specified diameter between existing ground level and 10 m depth	m	Rate only		
C35	As Item C34 but between 10 m and 20 m depth	m	Not required		
C36	As Item C34 but between 20 m and 30 m depth	m	Not required		
C37	As Item C34 but between 30 m and 40 m depth	m	Not required		
C38	As Item C34 but between 40 m and 50 m depth	m	Not required		
C39	Extra over Items C34 to C38 for use of semi-rigid core liner	m	Rate only		
C40	Extra over Items C34 to C38 for coring inclined rotary drillhole	m	Not required		
C41	Rotary drill in hard strata to obtain cores of the specified diameter between existing ground level and 10 m depth	m	20		
C42	As Item C41 but between 10 m and 20 m depth	m	Rate only		
C43	As Item C41 but between 20 m and 30 m depth	m	Not required		

Number	Item description	Unit	Quantity	Rate	Amount £
C44	As Item C41 but between 30 m and 40 m depth	m	Not required		
C45	As Item C41 but between 40 m and 50 m depth	m	Not required		
C46	Extra over items C41 to C45 for use of semi-rigid liner	m	Not required		
C47	Extra over items C41 to C45 for coring inclined rotary drillhole	m	Not required		
C48	Backfill rotary drillhole with cement/bentonite grout or bentonite pellets	m	20		
C49	Core box to be retained by client	nr	Not required		
	<u>Rotary percussive drilling</u>		Not required		
	<u>Resonance (sonic) drilling</u>		Not required		
	<u>Sonic drilling without cores</u>		Not required		
	<u>Sonic drilling to obtain cores</u>		Not required		
	Contract specific additional bill items				
	None				
Total section C carried to summary					

Bill D Pitting and Trenching

Number	Item description	Unit	Quantity	Rate	Amount £
D	Pitting and trenching				
	<u>Inspection pits</u>				
D1	Excavate inspection pit by hand to 1.2 m depth	nr	5		
D2	Extra over Item D1 for breaking out surface obstructions	h	2.5		
	<u>Trial pits and trenches</u>		Not required		
	<u>Observation pits and trenches</u>		Not required		
D14	Move equipment to the site of each observation pit or trench of not greater than 4.5m depth	nr	5		
D15	Extra over Item D14 for setting up on a slope of gradient greater than 20%	nr	Not required		
D16	Extra over Item D14 for trial pit or trench between 4.5 and 6m depth	nr	Not required		
D17	Excavate observation pit between ground level and 3.0m depth	m	7.50		
D18	As Item D17 but between 3.0m and 4.5m Depth	m	Not required		
D19	As Item D17 but between 4.5m and 6.0m Depth	m	Not required		
D20	Extra over Item D17 for hand excavation	m	7.5		
D21	Excavate observation trench between ground level and 3.0m depth	m2	Not required		
D22	As Item D21 but between 3.0m and 4.5m Depth	m2	Not required		
D23	As Item D21 but between 4.5m and 6.0m Depth	m2	Not required		
D24	Extra over Item D21 for hand excavation	m2	Not required		
D25	Extra over Items D17 to D19 and D21 to D23 for breaking out hard strata or Obstructions	h	Not required		
D26	Extra over Items D17 D21 for breaking out hard strata or obstructions by hand	h	Rate only		

Number	Item description	Unit	Quantity	Rate	Amount £
D27	Standing time for excavation plant, equipment and crew for machine dug observation pit or trench	h	Not required		
D28	Standing time for excavation plant, equipment and crew for hand dug observation pit or trench	h	Rate only		
	<u>Daily provision of pitting crew and equipment</u>		Not required		
	<u>General</u>		Not required		
	Contract specific additional bill items				
	Provision of plant and crew for horizontal diamond concrete core holes through the retaining wall	sum	1		
Total section D carried to summary					

Bill E Sampling and monitoring during intrusive investigation

Number	Item description	Unit	Quantity	Rate	Amount £
E	Sampling and monitoring during intrusive investigation				
	<u>Samples for geotechnical purposes</u>				
E1	Small disturbed sample	nr	30		
E2	Bulk disturbed sample	nr	33		
E3	Large bulk disturbed sample	nr	Rate only		
E4.1	Open tube sample using thick-walled (OS-TK/W) sampler	nr	Rate only		
E4.2	Open tube sample using thin-walled (OS-T/W) sampler	nr	Rate only		
E5	Piston sample	nr	Not required		
E6	Groundwater sample	nr	Rate only		
E7	Ground gas sample	nr	Not required		
E8	Cut, prepare and protect core sub sample	nr	20		
	<u>Continuous or semi-continuous sampling</u>		Not required		
	<u>Containers for contamination assessment and WAC testing</u>				
E14.1	Provision of containers and collection of samples for contamination Suite E (S1.20.3)	nr	23		
E14.2	Provision of containers and collection of samples for contamination Suite F (S1.20.3)	nr	Rate only		
E14.3	Provision of containers and collection of samples for contamination Suite G (S1.20.3)	nr	Rate only		
E15.1	Provision of containers and collection of samples for WAC Suite H (S1.20.5)	nr	Not required		
E15.2	Provision of containers and collection of samples for WAC Suite I (S1.20.5)	nr	Not required		
E15.3	Provision of containers and collection of samples for WAC Suite J (S1.20.5)	nr	Not required		
	Contract specific additional bill items				
	None				
Total section E carried to summary					

Bill F Probing and cone penetration testing

Number	Item description	Unit	Quantity	Rate	Amount £
F	<p>Probing and cone penetration testing</p> <p><u>Dynamic probing</u></p> <p><u>Cone penetration testing</u></p>		<p>Not required</p> <p>Not required</p>		
	<p>Contract specific additional bill items</p> <p>None</p>				
Total section F carried to summary					

Bill G Geophysical testing

Number	Item description	Unit	Quantity	Rate	Amount £
G	Geophysical testing				
	<u>Land based mapping techniques</u>		Not required		
	<u>Land based profiling techniques</u>		Not required		
	<u>Land based borehole techniques</u>		Not required		
	<u>Overwater</u>		Not required		
	Contract specific additional bill items				
	None				
Total section G carried to summary					

Bill H In situ testing

Number	Item description	Unit	Quantity	Rate	Amount £
H	In situ testing				
H1	Standard penetration test in borehole	nr	10		
H2	Standard penetration test in rotary drillhole	nr	15		
H3	In situ density testing				
H3.1	Small pouring cylinder method	nr	Not required		
H3.2	Large pouring cylinder method	nr	Not required		
H3.3	Water replacement method	nr	Not required		
H3.4	Core cutter method	nr	Not required		
H3.5	Nuclear method	day	Not required		
H4	California Bearing Ratio test	nr	Not required		
H5	Vane shear strength test in borehole	nr	Not required		
H6	Penetration vane test, penetration from ground level	nr	Not required		
H7	Hand penetrometer test (set of 3 readings)	nr	Not required		
H8	Hand vane test (set of 3 readings)	nr	Rate only		
	<u>Other tests</u>		Not required		
	<u>Permeability testing</u>		Not required		
	<u>Self-boring pressuremeter</u>		Not required		
	<u>High pressure dilatometer</u>		Not required		
	<u>Driven or push-in pressuremeter</u>		Not required		
	<u>Menard pressuremeter</u>		Not required		
	<u>Soil infiltration test</u>		Not required		
	<u>Miscellaneous site testing</u>		Not required		
	Contract specific additional bill items				
	None				
Total section H carried to summary					

Bill I Instrumentation

Number	Item description	Unit	Quantity	Rate	Amount £
I	Instrumentation				
	<u>Standpipes and piezometers</u>				
I1	Backfill exploratory hole with cement/bentonite grout below standpipe or standpipe piezometer	m	Rate only		
I2	Provide and install standpipe (19 mm)	m	Rate only		
I3	Provide and install standpipe piezometer (19 mm)	m	Not required		
I4	Provide and install standpipe piezometer (50 mm)	m	Not required		
I5	Provide and install standpipe piezometer (75 mm)	m	Not required		
I6	Provide and install ground gas monitoring standpipe (19 mm)	m	Not required		
I7	Provide and install ground gas monitoring standpipe (50 mm)	m	Not required		
I8	Provide and install ground gas monitoring standpipe (75 mm)	m	Not required		
I9	Provide and install headworks for ground gas monitoring standpipe, standpipe or standpipe piezometer	nr	Not required		
I10	Provide and install protective cover (flush)	nr	Rate only		
I11	Provide and install protective cover (raised)	nr	Not required		
I12	Extra over Item I10 for heavy duty cover in highways	nr	Rate only		
I13	Supply and erect protective fencing around standpipe or piezometer installation	nr	Not required		
I14	Supply and erect 1.5 m high marker post	nr	Not required		

115	<u>Standpipe and piezometer development</u>	Provisional sum	Not required		
	<u>Inclinometer</u>		Not required		
	<u>Slip indicators</u>		Not required		
	Contract specific additional bill items				
	None				
Total section I carried to summary					

Bill J Installation monitoring and sampling

Number	Item description	Unit	Quantity	Rate	Amount £
J	Installation monitoring and sampling (during Fieldwork Period)				
J1	Reading of water level in standpipe or standpipe piezometer during fieldwork period	nr	Rate only		
	Installation monitoring and sampling (post Fieldwork Period)		Not required		
	Contract specific additional bill items				
	None				
Total section J carried to summary					

Bill K Geotechnical laboratory testing

Number	Item description	Unit	Quantity	Rate	Amount £
K	Geotechnical laboratory testing				
K1	<u>Classification</u>				
K1.1	Moisture content	nr	7		
K1.2	Liquid limit, plastic limit and plasticity index	nr	7		
K1.3	Volumetric shrinkage	nr	Not required		
K1.4	Linear shrinkage	nr	Not required		
K1.5	Density by linear measurement	nr	Not required		
K1.6	Density by immersion in water or water displacement	nr	Not required		
K1.7	Dry density and saturation moisture content for chalk	nr	Not required		
K1.8	Particle density by gas jar or pyknometer	nr	Not required		
K1.9	Particle size distribution by wet sieving	nr	Rate only		
K1.10	Particle size distribution by dry sieving	nr	20		
K1.11	Sedimentation by pipette	nr	Rate only		
K1.12	Sedimentation by hydrometer	nr	Not required		
K2	<u>Chemical and electrochemical</u>				
K2.1	Organic matter content	nr	Not required		
K2.2	Mass loss on ignition	nr	Not required		
K2.3	Sulphate content of acid extract from soil	nr	Not required		
K2.4	Sulphate content of water extract from soil	nr	Not required		

Number	Item description	Unit	Quantity	Rate	Amount £
K2.5	Sulphate content of groundwater	nr	Not required		
K2.6	Carbonate content by rapid titration	nr	Not required		
K2.7	Carbonate content by gravimetric method	nr	Not required		
K2.8	Water soluble chloride content	nr	Not required		
K2.9	Acid soluble chloride content	nr	Not required		
K2.10	Total Sulphur content	nr	Not required		
K2.11	Total dissolved solids	nr	Not required		
K2.12	pH value	nr	Not required		
K2.13	Resistivity	nr	Not required		
K2.14	Redox potential	nr	Not required		
K3	<u>Compaction related</u>				
K3.1	Dry density/moisture content relationship using 2.5 kg rammer	nr	Not required		
K3.2	Dry density/moisture content relationship using 4.5 kg rammer	nr	Not required		
K3.3	Dry density/moisture content relationship using vibrating rammer	nr	Not required		
K3.4	Extra over Items K3.1, K3.2 and K3.3 for use of CBR mould	nr	Not required		
K.3.5	Maximum and minimum dry density for granular soils	nr	Not required		
K3.6	Moisture Condition Value at natural moisture content	nr	Not required		
K3.7	Moisture Condition Value/moisture content relationship	nr	Not required		
K3.8	Chalk crushing value	nr	Not required		
K3.9	California Bearing Ratio on recompacted disturbed sample	nr	Not required		
K3.10	Extra over Item K3.9 for soaking	day	Not required		
K4	<u>Compressibility, permeability, durability</u>				
K4.1	One-dimensional consolidation properties, test period 5 days	nr	Not required		
K4.2	Extra over Item K4.1 for test period in excess of 5 days	day	Not required		
K4.3	Measurements of swelling pressure, test period 2 days	nr	Not required		
K4.4	Measurement of swelling, test period 2 days	nr	Not required		
K4.5	Measurement of settlement on saturation, test period 1 day	nr	Not required		
K4.6	Extra over Items K4.3 to K4.5 for test period in excess of 2 or 1 day (s)	day	Not required		
K4.7	Permeability by constant head method	nr	Not required		
K4.8	Dispersibility by pinhole method	nr	Not required		

Number	Item description	Unit	Quantity	Rate	Amount £
K4.9	Dispersibility by crumb method	nr	Not required		
K4.10	Dispersibility by dispersion method	nr	Not required		
K4.11	Frost heave of soil	nr	Not required		
K5	<u>Consolidation and permeability in hydraulic cells</u>		Not required		
K6	<u>Shear strength (total stress)</u>				
K6.1	Shear strength by the laboratory vane method (set of 3)	nr	Not required		
K6.2	Shear strength by hand vane (set of 3)	nr	Not required		
K6.3	Shear strength by hand penetrometer (set of 3)	nr	Not required		
K6.4	Shear strength of a set of three 60 mm x 60 mm square specimens by direct shear, test duration not exceeding 1 day per specimen	nr	10		
K6.5	Extra over Item K6.4 for test durations in excess of 1 day per specimen	sp.day	Not required		
K6.6	Shear strength of a single 300 mm x 300 mm square specimen by direct shear, test duration not exceeding 1 day	nr	Rate only		
K6.7	Extra over Item K6.6 for test durations in excess of 1 day	day	Rate only		
K6.8	Residual shear strength of a set of three 60 mm x 60 mm square specimens by direct shear, test duration not exceeding 4 days per specimen	nr	Not required		
K6.9	Extra over Item K6.8 for test durations in excess of 4 days per specimen	sp.day	Not required		
K6.10	Residual shear strength of a 300 mm square specimen by direct shear, test duration not exceeding 4 days	nr	Not required		
K6.11	Extra over Item K6. 10 for test duration in excess day of 4 days	day	Not required		
K6.12	Residual shear strength using the small ring shear apparatus at three normal pressures, test duration not exceeding 4 days	nr	Not required		
K6.13	Extra over Item K6.12 for test duration in excess of 4 days	day	Not required		
K6.14	Unconfined compressive strength of 38 mm diameter specimen	nr	Not required		
K6.15	Undrained shear strength of a set of three 38 mm diameter specimens in triaxial compression without the measurement of pore pressure	nr	Not required		
K6.16	Undrained strength of a single 100 mm diameter specimen in triaxial compression without the measurement of pore pressure	nr	Rate only		
K6.17	Undrained shear strength of single 100 mm diameter specimen in triaxial compression with multistage loading and without measurement of pore pressure	nr	Not required		

Number	Item description	Unit	Quantity	Rate	Amount £
K7	<u>Shear strength (effective stress)</u>				
K7.1	Consolidated undrained triaxial compression test with measurement of pore pressure (set of three 38 mm specimens), test duration not exceeding 4 days per specimen	nr	Not required		
K7.2	As K7.1 but single-stage or multi-stage test using 100 mm diameter specimen	nr	Not required		
K7.3	Consolidated drained triaxial compression test with measurement of volume change (set of three 38 mm specimens), test duration not exceeding 4 days per specimen	nr	Not required		
K7.4	As Item K7.3 but single stage or multi stage test using 100 mm diameter specimen, test duration not exceeding 4 day	nr	Rate only		
K7.5	Extra over Items K7.1 and K7.3 for test duration in excess of 4 days per specimen	sp.day	Not required		
K7.6	Extra over Items K7.2 and K7.4 for test duration in excess of 4 days	day	Rate only		
K8	<u>Rock testing</u>				
K8.1	Natural water content of rock sample	nr	15		
K8.2	Porosity/density using saturation and calliper techniques	nr	Not required		
K8.3	Porosity/density using saturation and buoyancy	nr	Not required		
K8.4	Slake durability index	nr	Not required		
K8.5	Soundness by magnesium sulphate	nr	Not required		
K8.6	Magnesium sulphate test	nr	Not required		
K8.7	Shore scleroscope	nr	Not required		
K8.8	Schmidt rebound hardness	nr	Not required		
K8.9	Resistance to fragmentation	nr	Not required		
K8.10	Aggregate abrasion value	nr	Not required		
K8.11	Polished stone value	nr	Not required		
K8.12	Aggregate frost heave	nr	Not required		
K8.13	Resistance to freezing and thawing	nr	Not required		
K8.14	Uniaxial compressive strength	nr	15		
K8.15	Deformability in uniaxial compression	nr	Not required		
K8.16	Indirect tensile strength by Brazilian test	nr	Not required		
K8.17	Undrained triaxial compression without measurements of porewater pressure	nr	Not required		
K8.18	Undrained triaxial compression with measurement of porewater pressure	nr	Not required		

Number	Item description	Unit	Quantity	Rate	Amount £
K8.19	Direct shear strength of a single specimen	nr	10		
K8.20	Swelling pressure test	nr	Not required		
K8.21	Measurement of point load strength index of rock specimen (set of ten individual determinations)	nr	Not required		
K8.22	Single measurement of point load strength on core sample (either axial or diametral test) <u>Ground/groundwater aggressivity</u>	nr	45		
K9.1	Suite A (Greenfield site – pyrite absent), Schedule 1.19.6	nr	Not required		
K9.2	Suite B (Greenfield site – pyrite present), Schedule 1.19.6	nr	Not required		
K9.3	Suite C (Brownfield site – pyrite absent), Schedule 1.19.6	nr	15		
K9.4	Suite D (Brownfield site – pyrite present), Schedule 1.19.6	nr	Not required		
	Contract specific additional bill items				
	None				
Total section K carried to summary					

Bill L Geoenvironmental laboratory testing

Number	Item description	Unit	Quantity	Rate	Amount £
L	Geoenvironmental laboratory testing				
	<u>Contamination testing</u>				
L1.1	Suite E (Soil samples Schedule S1.20.3)	nr	10		
L1.2	Suite F (Water samples Schedule S1.20.3)	nr	Rate only		
L1.3	Suite G (Gas samples Schedule S1.20.3)	nr	Rate only		
	<u>Waste acceptance criteria testing</u>				
L2.1	Suite H (Inert waste landfill Schedule S1.20.5)	nr	Not required		
L2.2	Suite I (Stable non-reactive hazardous waste in non-hazardous waste landfill Schedule S1.20.5)	nr	Not required		
L2.3	Suite J (Hazardous waste landfill Schedule S1.20.5)	nr	Not required		
	Contract specific additional bill items				
	None				
Total section L carried to summary					

Summary of Bill of Quantities

	£
A. General items and provisional sums	
B. Percussion boring	
C. Rotary drilling	
D. Pitting and trenching	
E. Sampling during intrusive investigation	
F. Probing and cone penetration testing	
G. Geophysical testing	
H. In situ testing	
I. Instrumentation	
J. Installation monitoring and sampling	
K. Geotechnical laboratory testing	
L. Geoenvironmental laboratory testing	
Total tender	

CV of Supervising Engineer enclosed
 Method Statements enclosed

Yes/No
Yes/No

Signature.....

Signed By.....

On Behalf of (Company).....

Date.....

Appendix A. Rates for Ground Practitioners and other Personnel

Item	Item Description	Unit	Rate
1	Technician	h	
2	Graduate ground engineer	h	
3	Experienced ground engineer	h	
4	Registered Ground Engineering Professional	h	
5	Registered Ground Engineering Specialist	h	
6	Registered Ground Engineering Advisor	h	
7	Expenses incurred by staff on site visits who are resident by agreement with the Investigation Supervisor	day	
8	Rate per kilometer ¹ from Contractor's premises and return for Items 1, 2 and 3	km ¹	
9	As above but for Items 4, 5 and 6	km ¹	
10	All other expenses incurred in conjunction with a site visit where a return journey is made on the same day for Items 1, 2 and 3	visit	
11	As above but for Items 4, 5 and 6	visit	
12	All other expenses incurred in connection with a visit where an overnight stay is necessary for Items 1, 2 and 3	overnight	
13	As above but for Items 4, 5 and 6	overnight	
¹ where considered more appropriate, 'mile' may be used			

Estimate of costs under Appendix A to the Bill of Quantities where the provision of the Contractor's staff for work in accordance with Specification Clauses 3.5.2, 3.6.1 and 3.6.2 cannot be adequately specified at tender.
(To be assessed by the Investigation Supervisor)

Appendix B. Long-term sample storage

Item	Item Description	Unit	Rate
Geotechnical Samples			
1	Dynamic (windowless) samples	nr	
2	Rotary drilling core in core box	nr	
3	Rotary drilling core sub-samples	nr	
4	Bulk samples	nr	
5	Large bulk samples	nr	
6	Open-tube samples (thick-wall sampler)	nr	
7	Open-tube samples (thin-wall sampler)	nr	
8	Disturbed samples	nr	
9	Groundwater samples	nr	
10	Delft samples	nr	
11	Mostap samples	nr	
12	Piston Samples	nr	
Contamination Samples			
13	Soil samples in plastic tubs	nr	
14	Soil samples in glass containers	nr	
15	Groundwater samples	nr	
16	Gas samples	nr	
Where samples comprise more than one container, the rate entered shall be per container			

Estimate of costs under Appendix B to the Bill of Quantities for long-term storage of samples where required in S1.12.2 and S1.12.10. **(To be assessed by the Investigation Supervisor)**