Specified Bill Kiln Point Wetland Creation

Material Specification

	Item		No.	Unit
	Dewatering Bag(s). Plan ahead for removal of the filled bags off site (Heavy lifting machinery may be required).)	Number and Location To Contractor Specification		
	Silt Fences (and posts)	Number and Location To Contractor Specification		
	0.3m L 225mm Clay Rocker Pipe		1	no.
	Clay SB1/5S 225mm Plain Ended 90 Degree Bend		1	no.
	EPDM coupler with jubilee clips 225-260mm		2	no.
	40-20mm Close Graded Aggregate (CGA) shall comply with BS EN 13242: 2002		0.2	m^3
	2.5m x 50m HDPE 0.6 mm. Cut to 1.25m width		1	
	200gsm geotextile or similar approved. 2.5m W		70	lin. m.
	Scottish Boulders 300-500mm dia. Crate (Approx. 1000kg). Sample to be approved by client.		1	
	600x600x50mm PC Slab in buff.		3	no.
	Coir Logs **PP/PE Free** 2.9m x 0.3m. Note: logs should not be supplied/be installed with cardboard planting tubes.		9	no.
	Untreated hardwood pegs (8 per log at bund) (12 at outlet channel) to suit for tying down of coir logs		80	no.
	4mm 100% natural coir rope (tie down coir logs)(no synthetic core)		100	lin. m.

P Preliminaries

Item	Description	Quantity	Unit	Rate	Total
P.1	**CDM Risk Register, Liaison and Compliance.** Allow for Risk Register and compliance with CDM regulations on site.		item		
P.2	**Site Inception** Allow for construction facilities and security		item		
P.3	**Protective fencing.** Allow for security fencing as required to protect the works and segregate members of the public from hazardous activities or excavations for the duration of the works.		item		
P.4	**Services** Check and mark all services		item		
P.5	**M&E** - Disconnect existing electric fencing (from hub at well) securely - allow liaison with landowner requirements (for fencing supply/stock control during operations).		item		
P.6	**Construction Plan**: Pollution control measures and soil protection methods need to be detailed as part of a Construction Plan by the Contractor. Construction methodology to contractor BG152_100 Specification Kiln Point, to suit. The Construction Plan should also include a materials and waste management plan, details of site access and security arrangements, and an Incident Response Plan (see 4.38, BG152_100 Specification Kiln Point).		item		
P.7	**Setting Out**		item		
P.8	**Other** (please detail)				

£0.00

1.0 Site Clearance

Item	Description	Quantity	Unit	Rate	Total
1.1	**Hedge clearance** (at proposed swale inlet)	10	m^2		
1.2	**Stock fence removal** and reinstatement (at proposed swale inlet)	3.6	lin. m.		
1.3	**Cut short** grass/tall herb vegetation within proposed excavation area: cut short (cut to 1") and remove cuttings to composting/feed area within farm (to landowner specification). Do not use herbicides under any condition.	1303	m^2		

£0.00

2.0 Soil Grading

Item	Description	Quantity	Unit	Rate	Total
2.1	**Strip existing topsoil** to 100mm depth within wetland excavation area and remove from wetland area. Invert (short vegetation face down) and store in windrows no greater than 1m H, 3m L.	134	m^3		
2.2	**Swale excavation.** Excavate 12 linear metres of 150mm deep swale, 1m wide at base, with 1:3 side slopes falling into Wetland Cell 3 as indicated on drawings BG152_4_1_100 General Arrangements Kiln Point and as detailed in drawing BG152_4_5_100 .	Included above			
2.3	**Excavate subsoil** to proposed finished profiles within proposed wetland area. Store in windrows no greater than 1m H, 3m L. Retain only subsoil within wetland (including bunds and surrounding).	148	m^3		
2.4	**Strip and store existing turves** and topsoil to suit (preservation of turves).	140	m^3		

£0.00

3.0 Excavations

Item	Description	Quantity	Unit	Rate	Total
3.1	**Excavate 4 no. trenches**, to formation levels as shown for 1.25m deep HDPE liner with geotextile wrap, to a depth of 1.35m below finished bund levels (allows 100mm cover to top of liner). **Provide trench support as necessary to ensure safe working conditions.**				
	Cell 1 Liner/Trench Length	22	lin.m.		
	Cell 2 Liner/Trench Length	19	lin.m.		
	Cell 3 Liner/Trench Length	14	lin.m.		
	Cell 4 Liner/Trench Length	11.6	lin.m.		

£0.00

4.0 Foundations

Item	Description	Quantity	Unit	Rate	Total

£0.00

5.0 Structures, Features and New Surfacing

Item	Description	Quantity	Unit	Rate	Total
5.1	**Coir dam in outlet channel to bay.** Stake 2.9m L PP/PE free Coir Log, installed to fit in channel (do not excavate) in location as indicated on drawing BG152_4_1_100 General Arrangements Kiln Point and to methods as detailed in drawing BG152_4_5_100 .	1	no.		
5.2	**Install HDPE liner sections** (1.25m depth) within inner and outer geotextile protection within trenches, to lengths as shown BG152_4_1_102 Setting Out. Geotextile to be wrapped as a continuous 'U' (side-base-side) around liner. To install, wrap the ends of liner and geotextile around untreated timber stakes and turn to tighten, before bedding back in (use subsoil only) to secure.	66	lin.m.		
5.3	**Install Coir Log Dams at overflow bunds.**	8	no.		
5.4	**New Swivel Pipe Outlet to Wetland**: connect existing 200mm pipe with EPDM coupler with jubilee clips onto new 90 degree clay bend. Lubricate as required to fit EPDM fasteners. Fasten clip tightly to concrete pipe, leave second jubilee clip slightly loose onto clay bend, to allow 'swivel' adjustment to set the correct height. Support under 90 degree bend with a single 600x600mm PC slab to suit.	Item			
5.5	**Pipe Termination (into existing channel before beach).** Fit 1 no. EPDM coupler to existing pipe end, with 0.6m section of 225mm clay rocker pipe to extend pipe end. Lay 2no. 600x600mm slabs (sharp sand bed if required to lift) with forward facing falls (1:20) to support underside of pipe extension. Maintain minimum existing pipe falls. Surround pipe and EPDM coupler with 3-500mm boulders, leaving clear unobstructed outlet to pipe, to completely cover pipe and coupler.	Item			
5.6	**Voided CGA 4-20** stone channel into Swale - excavation, HDPE liner section, compacted all by machine, make good swale end. Refer to detail 5, BG152_4_5_100.	Item			

£0.00

6.0 Soiling and Grading

Item	Description	Quantity	Unit	Rate	Total
6.1	**Final Grading Wetland Side Slopes and Base (Sandy Subsoil Only)** Carry out fine grading of subsoiled areas **by hand** only. Create some roughness - generating pockets, shelves and pools (50-200mm variation) for optimal plant establishment/biodiversity benefits.	380	m^2		
6.2	**Soil Mounding** Finish soil mounding area with 100mm topsoil stripped from wetland site, inverted, finished with turves stripped and stored from landform area. Soil mounding to feather into existing ground levels with smooth flowing contours with gradients no steeper than indicated. Refer to BG152_100 Specification Kiln Point for consolidation and soil handling generally.	282	m3		

£0.00

7.0 Seeding

Item	Description	Quantity	Unit	Rate	Total
7.1	**EM1 General Purpose Meadow from Emorsgate Seeds** at 4g/sq. m. or equivalent approved seed mixture.	938	m^2		
7.2	**EM8 Meadow Mixture for Wetlands from Emorsgate Seeds** at 4g/sq. m. or equivalent approved seed mixture.	381	m^2		
7.3	Overseed turves to soil mounding with **Grazing Meadow Seed Mix from Habitat Aid** at 2g/sq. m. or equivalent approved seed mixture.	1400	m^2		
7.4	**Make good any affected grassland not herein detailed, with Grazing Meadow Seed Mix from Habitat Aid** or equivalent approved seed mixture, at standard sowing rates.				

£0.00

8.0 Project Management and Liaison

Item	Description	Quantity	Unit	Rate	Total
8.1	**Pre-Commencement Meeting** To be held with Contractor, and Client to ensure that the project is understood by all parties, to agree a programme going forward, to sign off preliminary stages as written and to confirm all elements of Setting Out.				
8.2	**Practical Completion** Practical Completion to be signed off by site visit from Client				

£0.00

10.0 Totals

Item	Description	Total
P	Preliminaries	
1.0	Site Clearance	
2.0	Soil Grading	
3.0	Excavations	
4.0	Foundations (n/a)	
5.0	Structures Features and Surfacing	
6.0	Soiling and Grading	
7.0	Seeding	
8.0	Project Management	
	Grand Total	