

Contract Title: North Berwick Trunk Beach Sewer Refurbishment		Contract No: 05553	MS Reference: North Berwick MS-01
Subject: Refurbishment MS			
Author: Matthew Anderson		Date Produced: Monday 01/05/19	
1.0	Scope of the Works:	<i>The existing 800mm diameter partially above ground concrete trunk sewer (external barrel) is in poor condition. Scope is to grit blast the outside wall of the sewer and refurbish with a new coating. 5 No. concrete manholes to also receive similar type external repairs undertaken.</i>	
2.0	Date(s) to be Carried out:	<i>TBC once Marine License is in place.</i>	
3.0	Precise Location:	<i>Beach side to the rear of Forth Street, North Berwick (in front of the sea wall).</i>	
4.0	Access / Egress & Deliveries:	<i>Morrison Construction has arranged for a site compound and will have storage space within the same area. All deliveries will be accepted at this address. All site works are within a secured site with access to the trunk sewer via the existing access ramp from Forth Street / Back Street.</i>	
5.0	Methodology:	<p>Site prep:</p> <ol style="list-style-type: none"> 1) Residents/businesses affected by work to notified by Scottish Water prior to work commencing. 2) Site to be secured using Heras fencing (3.5m L x 2m H, 38mm dia tubing). Approx length of fencing is 160m, with triangulation strengthening points every 5 panels. Approx 65 panels, 54 concrete footing stools, 130 stainless steel clips. <p>Excavations / Temporary Works:</p> <ol style="list-style-type: none"> 1) Morrison Construction will further expose the existing barrel of the 800mm concrete sewer over approximately 30m in length. (approx 3.5t of as found sand/shingle temporarily removed over full length (in preparation of the grit blasting). 2) Protective sheeting to be attached to Heras panels. 3) Plywood sheets (marine grade approx 100No.) and sandbags (hessian approx 500 No.) built up in layers will be used to provide temporary trench side protection – see drawing 5029960018-SN-DRA-01-0002 4) Works to be undertaken during lowest tidal conditions. 5) Pumping of sea water from around the existing sewer will be prohibited. <p>Refurbishment works (sewer):</p> <ol style="list-style-type: none"> 6) Morrison Construction to grit blast exposed sections of sewer to remove debris and loose concrete. This material will be bagged up and removed (over entire length this is approx 2 tonnes of material) to licensed tip. 7) GEO80 mesh to be pinned around the external barrel of existing concrete sewer. 	

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		<p><i>Approx. 45 sheets of mesh will be required over entire trunk sewer length.</i></p> <ol style="list-style-type: none"> 8) <i>Flexcrete Cemprotec elastic cementitious coating is then sprayed / applied using a compressor. Application will be in a 2mm thick layer. (approx. 2T of new Flexcrete to be applied).</i> 9) <i>A second 1mm coat will then be applied containing a pigment to match existing colour.</i> 10) <i>At the start of each shift if the tide has affected the temporary works, then it will be re-excavated / secured before recommencing rehabilitation works.</i> 11) <i>Once complete the area will be reinstated to the condition prior to work commencing.</i> <p>Refurbishment works (manholes):</p> <ol style="list-style-type: none"> 12) <i>All five manholes will be grit blasted using the same technique as detailed above (approx 3.5 tonnes of material to be removed from site and taken to licensed tip.)</i> 13) <i>Webercem mortar will then be trowel applied to the areas where required within the manholes to both horizontal and vertical surfaces. (approx 3.5t of Webercem added to existing manhole structures).</i> <p>Confined space working:</p> <ol style="list-style-type: none"> 14) <i>See document (HS&S-FRM-C02-01)</i>
6.0	Significant Health, Safety & Environment Risks:	<ol style="list-style-type: none"> 1. <i>Operatives/Service Strikes with Heavy Plant</i> 2. <i>Traffic/Pedestrian Management</i> 3. <i>Working near buried services</i> 4. <i>Working with and near plant.</i> 5. <i>Lifting Operations</i> 6. <i>Leptospirosis</i> <p>A project risk assessment can be found in the site folder</p> <p>A daily risk assessment will be undertaken on the day of the works by the site supervisor</p>
7.0	Risk Assessments Attached:	<p><i>(Health & Safety and Environmental Risk Assessments)</i></p> <p>A project risk assessment can be found in the site folder</p> <p>A daily risk assessment will be undertaken on the day of the works by the site supervisor</p>
8.0	COSHH Assessments Attached:	<p>A COSHH assessment can be found in the site supervisor's folder</p>
9.0	Personnel:	<ol style="list-style-type: none"> 1) <i>1no. plant ops</i> 2) <i>2no. main-layers</i> 3) <i>1no. site foreman</i>
10.0	Plant & Equipment:	<ol style="list-style-type: none"> 1) <i>1no. 13 tonne tracked digger</i> 2) <i>Buckets/straps/chains</i> 3) <i>G-CAT&GENNY4+</i> 4) <i>Insulated shovels</i> 5) <i>Ratchets/spanner sets for bolting up fittings</i> 6) <i>Grit blasting equipment and compressor</i>

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		<p>7) 2no. 2KVA Generator 8) Spill kit / plant nappy 9) Stihl saw with 12" blades</p>																					
11.0	Materials:	<p>Webercem Mortar GEO80 mesh sheets Flexcrete comprotec</p>																					
12.0	Communication & Responsibilities:	<p>All communication to be as follows: TBC</p>																					
13.0	Temporary Works:	<p>Requirement for Temporary works / ground conditions on site to be continually monitored by site foreman.</p>																					
14.0	Emergency Procedures:	<p>Emergency procedures can be found in the Morrison Construction site supervisor's folder and are also explained in the site induction and documentation can be found in the site cabin at the following address: TBC</p>																					
15.0	Permits to Work Required:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">Break Ground (HS&E-FRM-E02-03)</td> <td style="width: 5%; text-align: center;">X</td> <td style="width: 25%;"></td> </tr> <tr> <td>Other (please specify).....</td> <td></td> <td></td> </tr> <tr> <td>Confined Space Entry (HS&S-FRM-C02-01)</td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td>.....</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	Break Ground (HS&E-FRM-E02-03)	X		Other (please specify).....			Confined Space Entry (HS&S-FRM-C02-01)	X												
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16.0	Hold Points:	<p>Welfare arrangements: Morrison Construction will have welfare facilities on site</p>																					