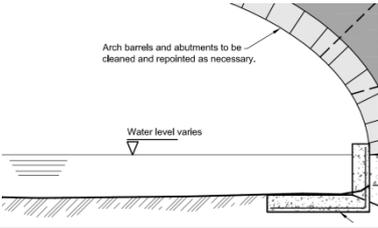


APPENDIX B2: CERTIFICATE OF SATISFACTORY EXECUTION – WORKS ONLY

<p>ACTIVITY (Title of Applicant Activity)</p>	<p>Works Contractor & PSCS</p>		
<p>SITE Works contract: (Title & Brief Description)</p>	<p>Delphi Bridge Remedial Works</p>  <p>The contract involved the following works to be carried out on the Delphi Bridge over the Bundorragha River in County Mayo:</p> <ul style="list-style-type: none"> • Repair and replacement of the voussoir stones on the Bridge arch; • Construction of reinforced concrete scour aprons; • Abutment and arch to be drilled and grouted; • Repair cracked parapet; • Construction of concrete running strips along inside face of parapet; • Removal of grass verge and replace with rubbing strip; • Construction of temporary Dams; • Traffic Management 		
<p>Site location:</p>	<p>Delphi, Co Mayo.</p>		
<p>Proportion of project undertaken by Applicant:</p>	<p>100%</p>	<p>Tender entity (<i>Sole trader/ Joint Venture</i>):</p>	<p>MEIC Ltd. (Mota Engil Ireland Construction Ltd.)</p>
<p>VALUE Construction contract value at award stage:</p>	<p>€88,205.00</p>	<p>Construction contract value at completion:</p>	<p>€ 150,000.00</p>
<p>GENERAL INFO Role of Company in delivery of Service:</p> 	<p>Project Details</p> <p>The bridge is located on the R335 in Delphi Co. Mayo and spans the Bundorragha River. The structure comprised a 9.7m span, 7.35m wide masonry arch bridge. The springing point was approximately 0.45m above riverbed level, and the crown of the arch is a further 2.74m above the springing point.</p> <p>Stones from the voussoir on the downstream western side and upstream eastern side have come loose and are to be replaced. Some of the loosened stones were present on site but others had to be made. A large scour hole to the upstream eastern side of the bridge, in the riverbed, was infilled with large diameter rock (diameter to be 500mm min).</p> <p>Drilling and grouting of the arch barrel was conducted and the scour aprons were drilled and grouted to both abutments. The existing grass verge were removed and 2 rubbing strips installed. The cracked parapet</p>		

to the downstream western side also had to be repaired.

A large part of the planning and the success of this project was the temporary works. The provision of temporary works to control the flow of water at the bridge was paramount to the success of the works. An upstream dam funnelled water into 4 no. 1m diameter pipes which bypassed the water to the downstream end of the bridge. 2 no. downstream dams were provided thus resulting in a dry working environment around the bridge. The lower of these was required to maintain water in the pipe to prevent irregular flow. MEIC Ltd kept the work area between the 2 upper dams pumped. This pumped water settled in a settling tank before discharge back into the river. The dams were constructed of large diameter stone and sand bags.

Traffic Management:

This bridge was located on a tourist route and was kept open at all times. MEIC Ltd. as part of the contract prepared a detailed Traffic Management Plan and implemented it in order to keep the bridge open.

Constraints:

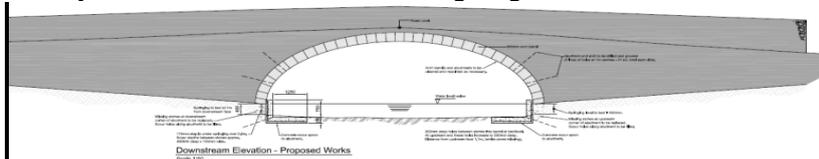
The first obvious constraint was that the work had to be carried out in a River. The method of construction using temporary works is discussed above. A major environmental constraint was also present on the project. It was of paramount importance in carrying out these works that silt was eliminated from discharge into the river. The most important fresh water pearl mussel colony in Europe lay downstream of the bridge. Any silt discharge or disruption to the river bed would kill this colony.

Health & Safety Aspects of the Contract

- Traffic Management
- Abrasive Wheels
- Access and Egress
- Company Vehicles and Driving
- Concrete
- Electrical Safety, Cables and Leads, Plugs and Sockets
- Ladders
- Lifting Gear
- Lifting Operations
- Liquefied Petroleum Gas
- Manual Handling and Lifting
- Moving Parts and Machinery
- Plant & Transport on Site
- Scaffolding
- Site Tidiness
- Slips, Trips and Falls
- Stepladders, Trestles and Stagings
- Unauthorized persons on site.
- Use of Tools and Equipment
- Weils Disease
- Works on or adjacent to Water
-

Client's Representative

Malachy Walsh and Partners Consulting Engineers



Name & address of Contracting Authority responsible for the project:	Mayo County Council, Áras an Chontae, The Mall, Castlebar, Mayo		
Contracting Authority contact name:		Phone no.:	+353 (0)94 90 24444
OTHER INFORMATION Other information required is listed below (where applicable)			
CONTRACTOR'S NAME:	MEIC Ltd.		