










"E"	Environmental	Comment
	<p>Greenhouse gases</p>	<p>Extensive reuse of existing materials reduced the environmental footprint of the Mersey Gateway Bridge project. Reuse of existing carriageway pavements together with ground improvement techniques minimised cut and fill requirements, reducing the environmental impact of the project.</p> <p>Primary construction materials included steel and reinforced concrete which were readily recycled at the end of the project.</p> <p>By producing a lean design that minimised the consumption of materials, the design team minimised the entrained carbon content. The project achieved carbon savings of around 300,000 Tonnes.</p>
	<p>Waste</p>	<p>The project has processed and, where required, remediated 1,250,000 tonnes of soil. All works were carried out in close collaboration with the EPA and Local Planning Authorities.</p> <p>Construction utilised "off the shelf" temporary works as far as possible, thereby taking a sustainable approach.</p> <p>Special temporary works equipment such as the Moveable Scaffold System (MSS) were sold at the end of the project and both MSS machines are being reused on another project in Eastern Europe. Drainage designs were optimised to incorporate asset renewal and reuse of existing pipework in the network where appropriate.</p> <p>Project Co and the Operator minimise waste and ensure a high degree of waste separation before the waste gets processed by a specialised waste-treatment company.</p>


	<p>Water</p>	<p>During construction the construction joint venture disposed of 250,000 litres of heavily contaminated groundwater and treated 40,000,000 litres of contaminated groundwater through on-site water treatment plants. All works were carried out in close collaboration with the EPA and Local Planning Authorities.</p>
	<p>Land Use</p>	<p>On the Mersey Gateway Project, all 400 workers for the landside bridge and the cable stay bridge (ca. 50% of all staff on the project) were trained to protect the salt marshes through the use of maps showing the protected areas that were placed in lunchrooms and reviewed during orientations.</p> <p>The Environmental Manager at Merseylink was named the BIG Biodiversity Champion 2017 at a ceremony in London the following year, beating strong competition from around the UK. Project Co's efforts to revitalise the estuary involved introducing a small herd of grazing cattle to the saltmarsh which helped encourage the growth of grasses, which in turn attracted insects, which helped attract birds back to the area.</p> <p>The banks of the River Mersey are of key ecological interest and the soft soil salt marshes are highly precious areas which were protected for the 42 months of the works. The project won numerous awards for its environmental conservation and managing and maintaining the ecology of the region.</p> <p>After careful investigations, BBGI and its partners decided to use 2 No movable scaffolding systems (each ca. 3,000 tons) to erect the landside bridge structures on both sides of the River Mersey, which helped to minimize the impact of construction on the salt</p>


		<p>marshes as no scaffolding had to be placed on the ground.</p> <p>An extensive programme of asset renewal works was carried out on existing landside structures which allowed them to be upgraded to the condition standards required in the Project Agreement. These works resulted in the incorporation of the existing structures into the network assets while removing the need to construct replacement structures.</p>
	General Factors	Nothing to report at this time.





"S"	Social	Comment
	Workforce Diversity	<p>The construction had nearly 1,300 people working on the project at peak with over 5 million hours worked over the 4 years. It also injected more than £129million of work into regional economy across hundreds of different suppliers and sub-contractors.</p> <p>The project created 119 days of work placement visits by unemployed Halton residents, 32 apprentices and a total of 73 weeks worth of work experience offered during construction.</p> <p>17 pre-employment programmes were delivered in partnership with Halton Enterprise Partnership (HEP), supporting over 100 residents in learning new skills. Over 650 people from the Halton area were successful in securing employment on the project.</p> <p>The tolling operator recruited 180 people (95% live in Halton) and is working within the local community and with HEP to help secure work for even more local people.</p>

	<p><b>Safety Management</b></p>	<p>In compliance with the CDM Regulations, at the construction stage, the concept design was developed around using large scale temporary works that provided safe access for construction, especially when working at height. By integrating permanent works solutions with construction methods it was possible for key construction risks to be eliminated and mitigated at an early stage in the design.</p> <p>Extensive ground investigations were undertaken to establish areas of legacy contamination and to permit a proactive approach to minimise exposure to harmful substances during construction. In addition, extensive clean-up operations were undertaken proving a lasting benefit. Wherever possible, contaminated material was neutralised and retained on site.</p> <p>In terms of the operational phase, designs were developed that facilitated safe access for inspection and minimised maintenance requirements. Access routes and maintenance methods were developed with the Operator in parallel. This approach optimised and integrated the design and operational philosophy.</p> <p>The carefully managed approach to Health and Safety has been successfully demonstrated following over 5 Million hours worked over last 4 years resulting in an excellent safety record with no major injuries or accidents on the project since construction commencement. The number of reportable accidents per 100,000 people employed on the project is 228/yr – based upon an actual total of 6 reportable accidents for an equivalent of 2,632 people employed full time over a 4 year period.</p> <p>This compares with current UK industry rates of 397 and 445 for Construction and Building Construction sectors respectively. The most serious incident with harm related to an operative sustaining a broken wrist following a fall from an access ladder.</p> <p>The most serious near miss involved an operative entering a crane slewing zone to communicate with a colleague and narrowly</p>
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		<p>avoiding being crushed by the counterweight due to the intervention of the slinger/signaller.</p> <p>Specific actions or initiatives included;</p> <ul style="list-style-type: none"> <li>• Bespoke internal information sharing platform (Mylink) accessible to the contractor and client for H&amp;S bulletins and alerts to ensure immediate action taken to investigate incidents and near misses and avoid recurrence.</li> <li>• Encouraging the reporting of all accidents and near misses by the workforce, investigation of circumstances and identification of failures</li> <li>• Provision of positive safety leadership across the project by the CJV and subcontract managers</li> <li>• Tracking processes for H&amp;S and environmental actions raised by the project teams</li> <li>• The provision of a full time site nurse and occupational health facility on the project</li> <li>• As the project included nationalities whose first language was not English, (e.g. Korean, Spanish and Portuguese) staff with translation skills were identified and worked at strategically placed areas of the project to ensure communications were understood</li> </ul>
	<p>Customer Engagement</p>	<p>There are monthly and weekly operation meetings held with the Client to discuss project performance, future interventions and gain feedback on the quality of the service and rehabilitation works provided.</p>
	<p>Communities</p>	<p><b>Community engagement benefits:</b></p> <ul style="list-style-type: none"> <li>• over 20,000 hours of support to local projects through Merseylink TimeBank scheme</li> <li>• £121,000 worth of community benefits - 18 separate projects through TimeBank scheme and regeneration fund. Initiatives ranged from creating nursing home peace gardens to nursery school play areas</li> </ul>

		<ul style="list-style-type: none"> <li>• 30,000 people visited Visitor Centres locally</li> <li>• 73 weeks of work experience for local students from schools and colleges within Halton and the immediate surrounding areas.</li> <li>• 92 local volunteers shared the Mersey Gateway story with young people and the local community</li> <li>• Presentations and Lego sessions to over 2,200 children in 71 primary and secondary schools</li> </ul> <p>Set up to complement the project, the Mersey Gateway Environmental Trust aims to enhance the environmental characteristics and well-being of the upper Mersey estuary from the bridges to Warrington over the contract period to 2044.</p> <p>Other social benefits of the project include reductions in journey times of up to 10 minutes, increase in journey time reliability and less congestion, and 80% less traffic using the Silver Jubilee Bridge, freeing it up for use as a local bridge.</p>
	<p>General Factors</p>	<p>Studies show that the economic benefits Mersey Gateway will bring to Halton and the surrounding area are almost four times greater than its costs. The projected long-term economic benefits are expected to include 4,640 permanent new jobs as a result of the operation of the Mersey Gateway Bridge, regeneration activity and inward investment and over £61 million a year in Gross Value Added from new jobs by 2030.</p>

"G"	Governance	Comment
	<p>Structure and Oversight</p>	<p>The project has a rigorous governance structure in place centered around quarterly board meetings. The Project Co management and the FSA provider are governed by an authority matrix, which provides for clear guidance on their day-to-day responsibilities and authorities.</p>

	<p>Code and Values</p>	<p>The project has the following policies in place which are reviewed annually:</p> <ul style="list-style-type: none"> <li>• Code of conduct (incl. bribery &amp; corruption)</li> <li>• Health &amp; Safety</li> <li>• Rapid Escalation Plan</li> <li>• Environmental, Social and Governance (ESG)</li> <li>• Cyber Security</li> <li>• Tax</li> <li>• Whistle Blower</li> </ul>
	<p>Transparency and Reporting</p>	<p>The project utilises a quarterly board pack, reporting to the board of directors on the operational and financial performance of the project and compliance with its obligations and regulation/legislation, including the policies.</p>
	<p>Cyber risk and Systems</p>	<p>Project Co and its subcontractors continuously monitor that the cyber security policy is in place and perform information risk analysis and develops mitigating measures. They have a robust and comprehensive IT backup system in place.</p>
	<p>General Factors</p>	<p>There is an active multi-layer system of checks and balances in place. The Project Co management and the FSA provider manage the overall day-to-day business in accordance with the authority matrix. All Project Co payments are disclosed to the board of directors before payments are made.</p>