Sustainable Infrastructure
Capability Statement
At GHD, our sustainability practitioners specialise in supporting projects from concept, planning and detailed design through to construction and operation. We have been involved with the Infrastructure Sustainability Council of Australia (ISCA) since they were established in 2007. And, today we are helping our clients with their application of the ISCA Infrastructure Sustainability (IS) rating tools to improve sustainability outcomes and realise a range of related benefits for projects.

As a global engineering, architecture, environmental, construction and business advisory company focused on infrastructure design solutions, we are well-placed to provide a range of infrastructure sustainability services for our clients. Our sustainability practitioners and technical experts can deliver across all the current IS rating credits as an integrated service, as well as individually for bespoke credits.

With a team of experienced Infrastructure Sustainability Accredited Professionals (ISAPs) working with designers and architects, we deliver both strategic and technical infrastructure sustainability services. We can help you explore opportunities to reduce your environmental and social impacts, maximise efficiencies, reduce costs, engage with stakeholders, develop strategies for continuous improvement and ultimately achieve desired ratings.

What we do
- IS rating assessment and advisory to inform target setting
- IS rating management and submissions for projects
- Addressing specific IS rating credits
- Risk and opportunity identification
- Project sustainability policies, targets and management
- Sustainable design and construction support
- Independent evaluation and verification
- Technical studies and assessments
- Stakeholder and community engagement
- Business case advisory sessions and training

Our difference
We understand that designing, building and operating sustainable infrastructure has the potential to improve asset resilience, reduce risks and costs, as well as improve the environmental and social footprint of the asset and organisation.

Our globally connected network spans urban and regional centres and we bring local knowledge and a global perspective across disciplines to deliver sustainability success. Our multi-disciplinary approach and understanding of the challenges that face sustainable design gives us the tools and practical technical expertise necessary to develop the right solutions to any problem.

Our ISAPs are part of our design teams, working in an integrated manner throughout the whole project, helping to identify opportunities early in the process and seeing through the key aspects associated with realising genuine and meaningful sustainability outcomes.
Delivering for our clients

Gateway Western Australia (WA) – Perth Airport and Freight Access Project

The Perth Airport and Freight Access Project is one of the largest infrastructure projects undertaken by Main Roads Western Australia. It sought to improve the safety and efficiency of one of the State’s most important transport hubs - where road, rail and air services connect. As part of our alliance, we provided sustainability services. This involved preparation and acquisition of an ‘As Built Rating’ for the project under the IS rating tool, receiving an ‘Excellent’ rating. At the time, this was the second highest rating for a constructed project.

We helped the Gateway WA project to achieve approximately AUD400,000 saving from reduced de-watering during construction, AUD200,000 saving from reduced usage of high-energy virgin materials, an 11% reduction in materials life cycle impacts and AUD6 million and 2,300 tonnes of carbon dioxide equivalent emissions saved.

Forrestfield Airport Link

Forrestfield Airport Link is an 8.5 kilometre rail development connecting Forrestfield to Perth City via the international and domestic airports. This AUD1.86 billion project, which will reach practical completion in 2021, received an IS ‘Excellent’ design rating. GHD is the lead design partner in the joint venture (JV). Our sustainability practitioners are providing advice in environment and sustainability compliance. Our sustainability practitioners also led the design rating submission including modelling the energy, materials and water consumption.

ISCA Verifier Projects

A number of our sustainability practitioners also help ISCA undertake IS rating submission verifications. We have verified submissions for a wide range of projects across Australia and New Zealand.

Our verifier role on projects demonstrates that we have an in-depth knowledge and understanding of the rating tool requirements and the robustness of evidence needed to gain IS certifications in a smooth and timely manner.

Sydney Metro Central Station Main Works

The Central Station Main Works is an AUD950 million project to revitalise Central Station as a sustainable, world-class transport node. GHD, in a JV, is conducting detailed design of the works and GHD is working to create a high-quality, sustainable asset for Sydney Metro by integrating sustainable development considerations into design decision making.

GHD is delivering a range of technical studies including climate change adaptation, building energy modelling, carbon footprinting and life-cycle impact assessment of building materials. GHD is also facilitating the delivery of both an ISCA and a green star building rating.

As part of this program, GHD identified a series of materials minimisation initiatives relating to structural design optimisation and assessed the viability of high rates of Portland cement replacement. These design changes are expected to result in up to a 30% reduction in greenhouse gas emissions and 25% reduction in materials use.

Bunbury Outer Ring Road (BORR)

GHD is providing the sustainability management services required to deliver an ISCA Version 2.0 Planning Rating for the BORR project. This nationally significant project will be one of the first to be rated across all areas of the new tool. GHD’s role includes:

- Establishment and implementation of a project decision making process which considered the three pillars of sustainability (economic, environmental and social)
- Public consultation regarding where sustainability efforts should be focused
- Submission of rating assessment to ISCA and responding to feedback as part of the verification process
Talk to us

For more information on Sustainable Infrastructure and how GHD can drive sustainability for your business, please contact:

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About GHD

GHD is one of the world’s leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.