The BCA Green and Gracious Builder Star Champion Award was introduced to recognise builders which have demonstrated exemplary green and graceful performance in their projects and consistently achieved the highest tier rating (i.e. Star Category). The pinnacle award also aims to encourage the whole construction value chain to embrace a green and gracious culture.
Dragages Singapore has long been a green and gracious contractor. They welcomed GGBS workshop participants from different construction firms on their sites to share some of their practices. Green and Gracious is one of the criteria during the assessment and selection of subcontractors and suppliers in the projects.

Dragages preserves the environment by limiting the environmental footprint of their construction activities and controlling the consumption of non-renewable resources. They focus on and promote PPVC technology which is not only very productive due to lesser on-site construction activities, and shortening of construction time; but also mitigates the sites’ environmental impact.

Overall, this reduces any discomfort caused by their activities to the residents and public. In addition, they promote “greener” practices such as extensive reconditioning and re-use of DSPL integrated metal formwork system, and the recycling of water for non-potable purposes.

Their projects implement and monitor innovative efforts to reduce the site’s environmental and societal effects on local residents in the areas of noise, air quality, waste water, land pollution, and biodiversity. They maintain open communication with their stakeholders. Employees’ well-being are also guaranteed through provision of full facilities at their workers’ quarters; staff and worker appreciation; and offering of valuable trainings.
Hexacon Construction Pte Ltd has participated in the BCA Green and Gracious Builder scheme since 2009. Since then, it has been their conscious effort to contribute to protecting the environment and projecting a better image of the construction industry to the general public.

They have continued to encourage all their working contractors and vendors to participate in promoting the Green and Gracious good practices.

At their procurement of contractors and vendors, they source and give priority to engagement of contractors who are with the Green and Gracious scheme and vendors that use green products and prefabrications.

At their workplace, their management participates to bring awareness to the project team to actively participate in the “reuse, reduce and recycle” effort, and the use of green solutions. They frequently review issues with the working team to work towards work efficiency, productive and with minimum wastages.

At their project site it is a norm for them to engage the neighbourhood to understand their concerns and maintaining a safe public environment with minimum disruption to their daily affairs while they are in their vicinity carrying out construction activities.
Shanghai Tunnel Engineering Co (Singapore) Pte Ltd (STEC) has played an integral role in promoting the best green and gracious practices in Singapore. Their management actively prioritise programmes which provide environmental awareness to their employees and introduce innovative methods. STEC has developed the Virtual Reality Training (VRT) focusing on workers who are involved with TBM operations, RC Works, Lifting Works and Welding Works to visualize and understand the processes and adapting to the working environment.

Introduction of the QR Code on-site reduces the paper work and enable them to get the required safety data sheets promptly for the machineries, chemical storage area as well as power distribution boxes.

STEC encourages gracious practices that minimise the impact on site and surroundings. Comprehensive guidelines and manpower management are established to ensure enhanced accessibility, public safety and better mitigation of noise and vibration. These include the installation of energy-efficient and water recycling appliances and equipment. Air quality management, housekeeping procedures and incentive programs are also implemented to ensure a healthy and safe workplace environment. In addition, green performance is an important criterion during the assessment and evaluation of STEC’s suppliers and sub-contractors every six months.

STEC hold Corporate Social Responsibility (CSR) events annually since 2015. They collaborate with non-profit organisations such as Metta House Organisation, Touch Home Care and Club Rainbow (Singapore), with a mission to support individuals and families by providing compassionate relevant services in their journey towards an enriching life.
The Green and Gracious Builder Award (GGBA) was introduced to recognise progressive builders who adopt environmentally friendly practices and minimise the effects of construction for people living close to the worksite. This award also recognises the conscious effort of builders in implementing gracious practices that helped to develop a more positive image of the industry.

The GGBA 2019 will be given to the following ratings:

i. STAR

ii. EXCELLENT
Key Features

- Use of bio-metric system for site attendance taking
- Use excavator that has magnet attached to it for segregation of demolition waste to reduce manpower usage
- Use of online platform system to conduct site inspection which reduce paper records
- Use of BIM to reduce interfacing issues therefore increase productivity
Key Features

- Use of drone for external façade inspection works
- Provision of dust prevention netting for neighboring institution
- Extended alternate path with provision of netting hoarding to allow visibility of the waterway beside the path
- Installed motion control sensor for temporary lights at stairway to save energy
- Cleaned public walkway and the empty plot of land nearby in their housekeeping regime
Key Features

- Use of portable traffic lights for lane closure to ensure public safety
- Use of motion sensors for lightings in site toilets
- Use of suction machine to reduce dust during grinding works in tunnel
Key Features

- Extensive movable noise barrier on site
- Use of suspended utility system to avoid diverting existing services, therefore increasing productivity
- Provision of recreation facilities such as basketball court and badminton court on site
Key Features

- Created an on-site gym with leftover construction materials for the workers
- Cultivated an edible garden which is managed by workers for their own consumption
- Use of heat shield paint for temporary facilities roof to reduce energy consumption due to reduced heat transmission
Key Features

• Use of solar powered motion sensor lights to reduce energy consumption
• Use of precast drain with crossing instead of cast in situ to reduce disturbance to the affecting neighbours
Key Features

• Use of automated wheel washer to increase productivity and reduce water usage
• Extended another lane for a nearby residential plot to ease traffic
• Provision of extended noise barrier and re-designed footing of hoarding to occupy lesser public area
Key Features

• Recycled heat energy from ACU and use it to provide electricity for their site office

• Use of pipe-jacking method instead of open-cut method to reduce the environmental impacts to the surrounding

• Provided another layer of sound barrier to neighbouring block with kindergarten to further reduce the noise level generated by the construction
Key Features

- Use of movable shelter to cover large temporary opening that prevent rainwater collection and breeding of mosquitoes
- Extensive use of greenery on site
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<thead>
<tr>
<th>ORGANISATION NAME</th>
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<tbody>
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<td>China Construction (South Pacific) Development Co. Pte. Ltd.</td>
<td>Star</td>
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<td>Qingjian International (South Pacific) Group Development Co., Pte. Ltd.</td>
<td>Star</td>
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<td>China Railway No. 5 Engineering Group Co., Ltd Singapore Branch</td>
<td>Excellent</td>
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<td>Daelim Industrial Co. Ltd</td>
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