BIM Awards Nomination - Industrial

Project: Goodman Green

By: Tungsten Structures

Products Used: Tekla Structures, Tekla Model Sharing and Trimble Connect

Project in Numbers:

Project value: $70.3 million

41,800 m^2 including awning area 1b,000m2 external hardstand

16.7kg/m^2 structural steel design

15m wide awning

Steel: 481 tonnes of structural steelwork. 216t of lightweight

steelwork, Total connected weight 784t, 8 offices, 2no. recessed loading docks

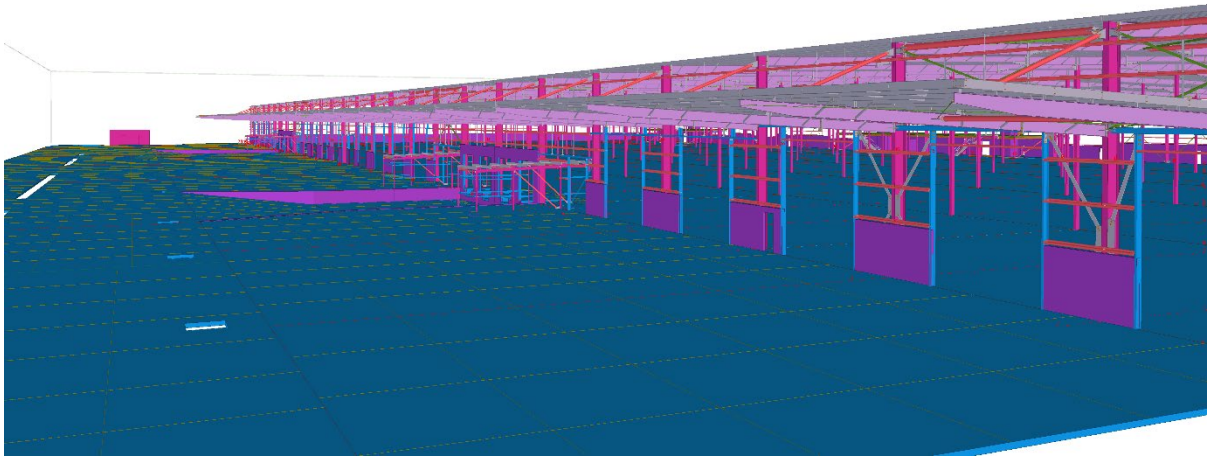
Concrete: Total m3 of concrete in job: 9500m^3 inc. slabs

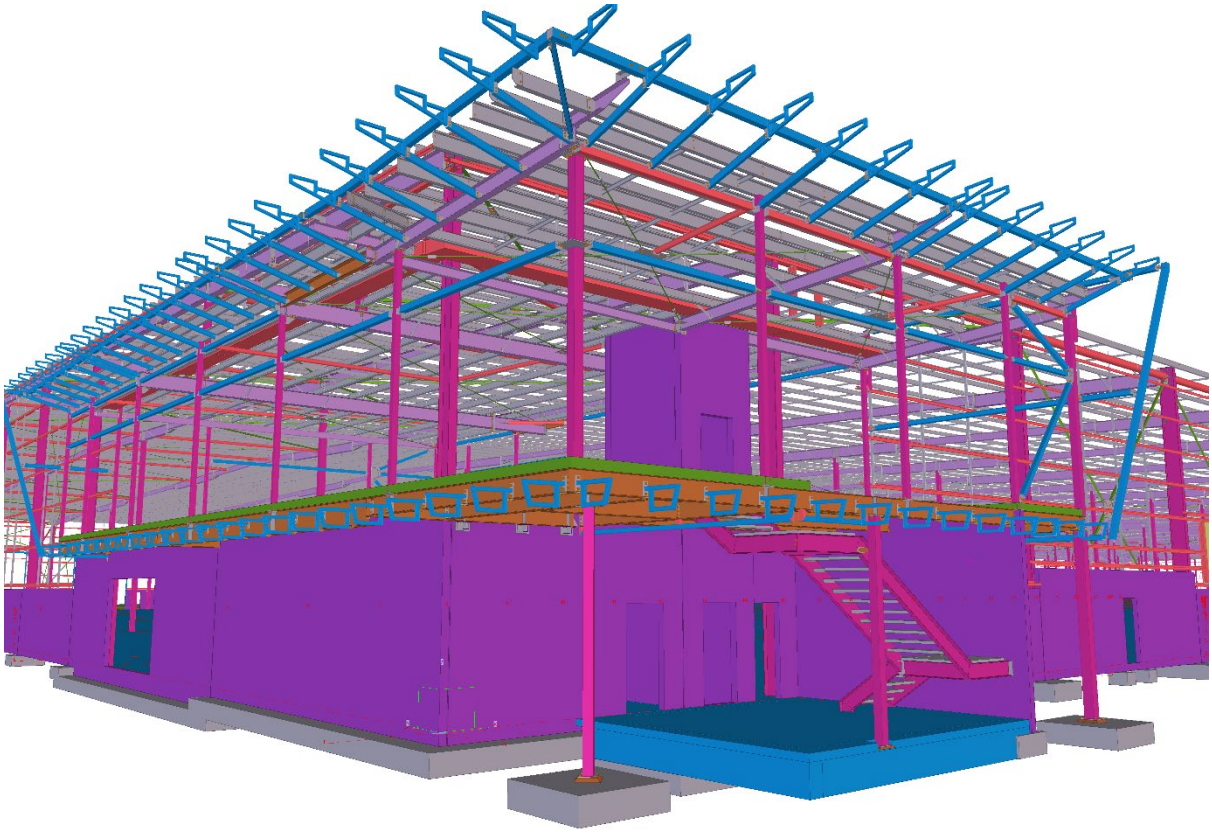
Project story/description:

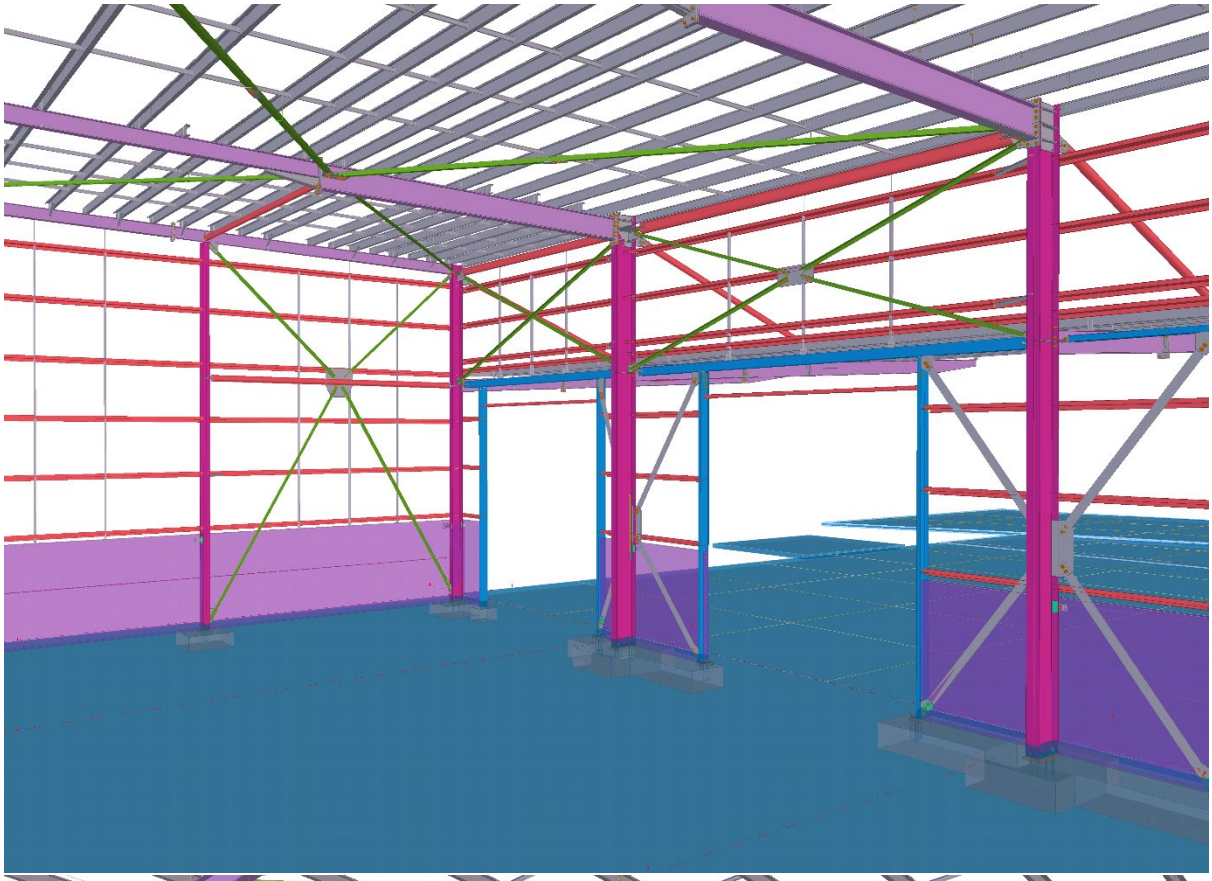
This project is a speculative industrial development by Goodman Group, it is developed as a flagship facility warehouse with 4 two storey main office spaces. The warehouse is located within one of Brisbane's fastest growing industrial hubs in Crestmead, providing excellent access to Brisbane and beyond. The project provides a highly versatile and flexible design with total available warehouse space of 38,650 sqm with 10m clear springing height along with a large 15m wide cantilevered awning. The facility also provides multiple sunken loading docks with dock levellers and large dedicated and secure hardstand areas. The project is also set to achieve design and construction to a 5-star Green Star rating. Tungsten Structures are involved in every step of the project from conception to end of construction (expected late 2021), providing value first to Goodman Group, the developer, then to De Luca Corporation, the D&C contractor.

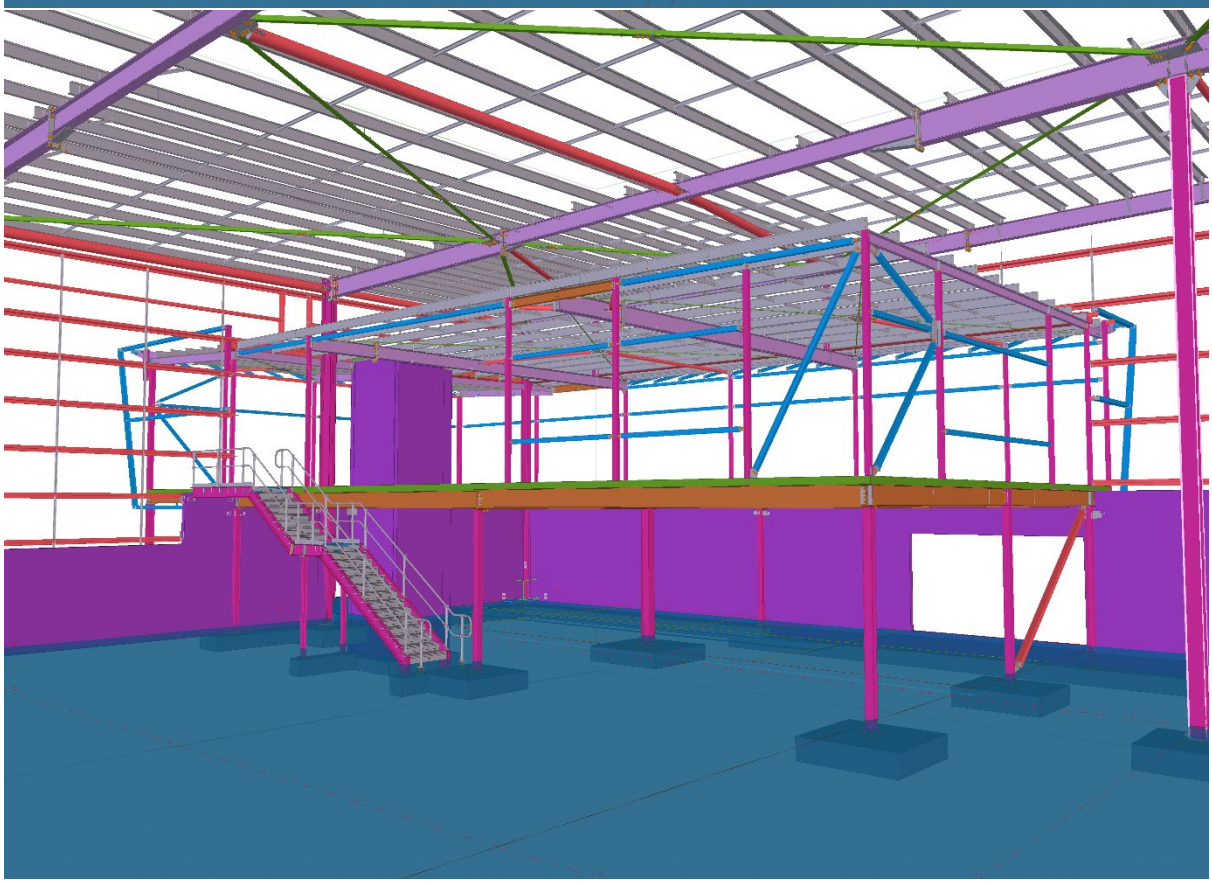
Our scope included the structural engineering design, the structural engineering documentation, the structural steelwork shop drawings, and construction support services. With our structural engineering documentation being created within Tekla Structures, it made it a seamless integration to also include the steel detailing shop drawings at the design stage, within the same platform, using the same model. The project includes many mixed structural engineering materials and elements and we found that Tekla Structures excelled in providing a collaborative environment between structural engineering and steel detailing to coexist. At ground level, concrete elements from pad and strip footings were modelled creating the platform for column base plates. Moving to above ground elements, concrete tilt panels and suspended composite concrete slabs made collaborating steel to concrete connections a breeze. The project is currently in the early stages of construction. Tungsten Structures provided preliminary structural engineering documentation developed for D&C tender in August 2020. The detailed structural engineering design and documentation phase commenced in January 2021, with the construction issued structural engineering design drawings being released at the end of February 2021. At this time the, the first steelwork

shop drawings were issued for fabrication as well. The project is due for a handover to the developer, Goodman Group, before the end of the year.







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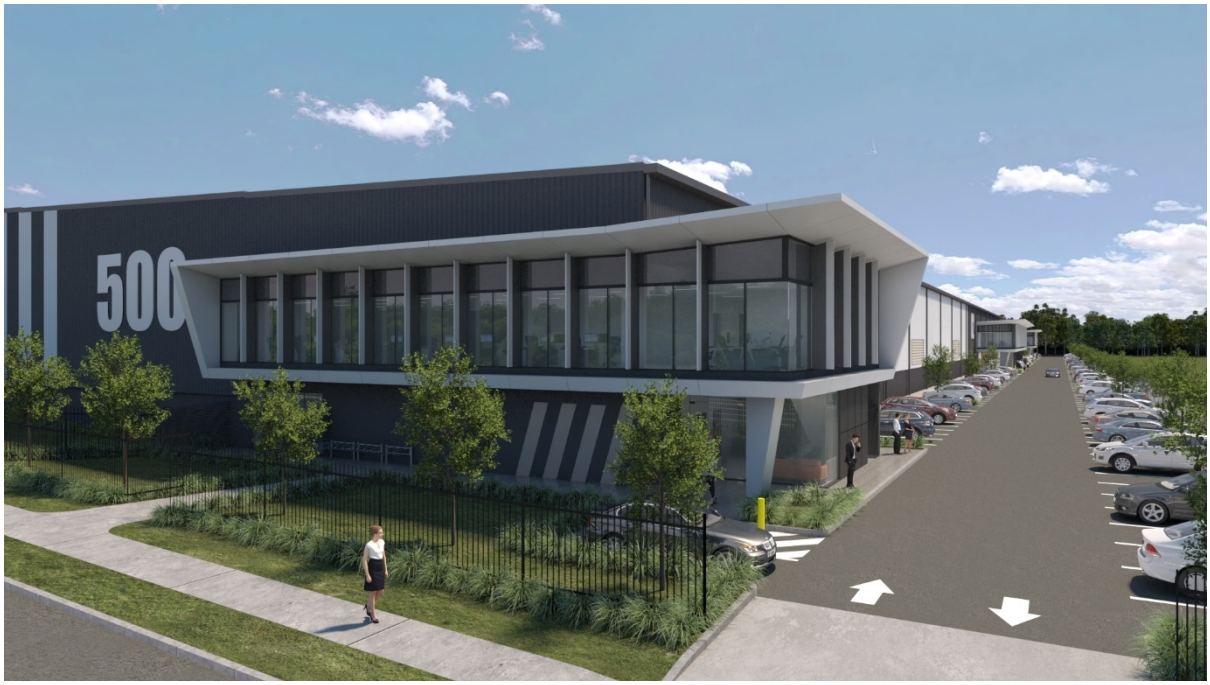
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