

**Case study** Steelscene – WA Schools Public  
Private Partnership Program (PPP) Project

April 2019



# TRUECORE<sup>®</sup> steel delivers for WA Schools PPP Project





**Project:** WA Schools Public Private Partnership Program (PPP) Project.

**Client:** Department of Finance.

**Developer:** The EduWest consortium which is headed by Project Co (Macquarie Capital) who are sole sponsor, equity investor, debt underwriter, financial advisor and SPV Manager.

**Steel Products:** Predominantly – lightweight framing made from TRUECORE® steel.

**Builder:** Badge Perkins Joint Venture (BPJV) is the D&C Subcontractor.

**Steel Fabricator:** Steelscene.

## The Western Australian State Government partnered with the private sector to design, build, finance and maintain four new primary schools and four secondary schools to open progressively from 2017 to 2023.

### Project summary:

The construction of the school facilities was awarded to Badge Constructions (WA) Pty Ltd (Badge) and Perkins (WA) Pty Ltd (Perkins) under a joint venture arrangement (BPJV).

Following the successful application of lightweight steel framing on similar projects in other states, BPJV proposed this methodology for the WA Schools PPP project. Traditionally, a double brick hot-rolled steel support and steel or timber roof rafters/battens is a common framing structure in Western Australia. This solution was considered by BPJV, and was excluded by the consortium in favour of the efficiencies presented from the fully integrated lightweight steel option. Hybrids of steel framing and other traditional method combinations were also considered and discounted following detailed assessment as well (RS).

Steelscene was appointed the steel framing design and fabrication contract for Baldivis Gardens Primary School, Woodland Grove Primary School, Avelley Secondary College (Stage 1 and Stage 2), Coastal Lakes College (Stage 1 and Stage 2), Hammond Park Secondary School (Stage 1 and Stage 2), and Harrisdale Senior High School (Stage 2).

### Sources:

- Rocky Slater, Manager PPP – WA Schools PPP (RS)
- Jason Orso, Project Manager – WA Schools PPP (JO)
- Gary James, Owner, Steelscene (GJ)

### Key highlights/challenges:

**Fixed project timelines** – allowance of 18 months from the start of detailed design, construction, to the doors for each Primary School opening. (GJ)

### Key benefits delivered to the WA Schools PPP (RS):

#### Speed:

- Swift frame assembly and installation once the first floor slabs were poured.
- Reduction in timeline allocated for wall noggins for inbuilt joinery (since already incorporated into framing).
- Tolerances enabled utilisation of split frame internal door frames leading to a quicker internal fit out cycle.

#### Efficiency:

- Reduction in secondary trades framing out penetrations for tubular skylights or large roof mounted kit (already accounted for in light-gauge framing).
- Increased spacing of supports for soffits reduced the need for secondary battens to carry external cladding in numerous locations.

#### Integration:

- Fully integrated with our alternate fire engineering solution (in double storey buildings) with application of intumescent paint to adjacent hot rolled steel support members.
- Fully integrated with our design consultancy team in steel coordination BIM modelling – with the buildings shared and reviewed in Navisworks environment by all parties.

#### Flexibility:

- Ability to accommodate future flexibility of the building layouts to the Department of Education's pedagogy future demands.

### Outcomes:

In summing up the success achieved so far on such a large scale, and high-profile project, Steelscene owner Gary James says, "By incorporating innovative engineering techniques and methodologies, we were able to increase the consistency of light gauge steel frame production due to high-rate, cold form cnc automation. This allowed for long spanning sections to be customised for fit to purpose application throughout the corresponding projects." He continues, "The flow on effect of this reduced the fabrication-to-site-to-erection scheduling timeline and kept work sites at a higher level of efficiency".

### Schools in the PPP Project:

**Primary schools (all operational for the 2017 Academic Year):**

1. Alkimos Beach Primary School
2. Baldivis Gardens Primary School
3. Carnaby Rise Primary School
4. Woodland Grove Primary School

**Secondary schools:**

1. Avelley Secondary College
  - a. Stage 1 opened in 2018 Academic Year
  - b. Stage 2 due for 2021 Academic Year
2. Coastal Lakes College
  - a. Stage 1 opened in 2019 Academic Year
  - b. Stage 2 due for 2022 Academic Year
3. Hammond Park Secondary School
  - a. Stage 1 due for 2020 Academic Year
  - b. Stage 2 due for 2023 Academic Year
4. Harrisdale Senior High School
  - a. Stage 2 due for 2020 Academic Year

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