

ST MARY'S WAVERLEY PERFORMING ARTS CENTRE MAKES PROGRESS

Barrow Construction is making good progress with the erection of the impressive St Mary's Waverley Performing Arts Centre.

The new facility will reinforce the aesthetic and historic heritage of the school while simultaneously providing a world class facility that incorporates the latest thinking in environmental sustainability.

Indeed the energy saving and environmentally sensitive structural aspects incorporated into the project by the designers, TPSP Architects, are many and varied.

John Barrow, director Barrow Construction, says that notable in the environmental context is the use of thermal insulation to prevent heat gain and loss, natural ventilation and maximised natural illumination, while solar power for heating is being investigated. Moreover, the sustainability theme also extends to the use of natural finishes and materials he points out.

Setting out the design concepts of the new facility, Richard Waller of TPSP Architects explains that it has been conceptualised as two arms cradling a theatre and dance studio, positioned to the West of the present main block and enclosing the existing courtyard on the West end with a foyer facing the courtyard, creating an additional outdoor venue for the school.

"The design therefore continues the two East – West wings on either side of the grassed courtyard with the wings matching the height of the two storey North block, and becoming three storeys at the lower level.

"Passages/cloisters run the length of the new wings allowing classrooms etc. to 'breathe' and be naturally ventilated. The concert hall/theatre rests between the wings and passages with the stage at the West end at the lower level (Level 1) and at the bottom of the existing pool.



Barrow Construction's Mike Makhudu pictured at the entrance to the new St Mary's Waverley Performing Arts centre

The seating follows the slope of the ground up to the entrance level (Level 2) and the main double volume entrance foyer and gallery. The wings rise to Level 3 which has classrooms and practice rooms and there is a gallery above the theatre seating at Level 3, with a dance studio above the stage area.”

Structurally, the new building ‘sits’ on a face brick plinth with the plaster and roofing in keeping with the existing architecture and with the fenestration and sun screening adding a modern element.

Existing workshops and staff quarters have been altered to create a large workshop with stores and toilets, while allowing future expansion to the South.

The external works will include levelling and reconfiguring the parking area on the West side, providing 34 parking bays and loading platforms at the rear passage doors.

“We have added a further aesthetic nicety in that access from the parking area to the stairways will be via avenues of trees on the North and South sides and to deal with the change in levels there will be external stairs and ramps” adds Waller.

Where the new wings meet the existing buildings, these are separated by the main access stairs forming a ‘gasket’ between the two buildings. On the South wing the separation is enhanced with a small reading courtyard and traditional fountain at a lower level.

At Level 1 the North and South wings include four music teaching rooms, one with an area of raked seating and another with instrument storage shelves; two music/drama teaching rooms; and two dressing/drama teaching rooms adjacent to the stage and at the stage level.

Between the wings at the East end under the raked floor are plant rooms, the lift shaft, and instrument store rooms. The stage is at the West end with pivot screens on either side of the stage - opening for theatre and closing for concerts – and access doors to loading platforms at the West ends of the passages. There are staircases in the passages leading up to Level 2.

“At Level 2 (the Entrance level) the North and South wings include three new and one large classroom in the North wing; an office, music and drama resource centre, and seminar room in the South wing. The rooms have large sun screened windows to the exterior of the building and high level windows facing the passages for ventilation and borrowed light” Waller adds.

“The main entrance foyer is between the wings and the entrances to the auditorium itself lead off the foyer and entrances to the box seating and sound and projection booths lead off the passages.

“At the gallery level (level 3), the North and South wings include three new art studios (now one large studio) sub divisible with large storage units, and one large studio all with raked ceilings under an open trussed roof with clerestory lighting in the North wing; a suite of 16 new music practice rooms and a smaller suite of four loud instrument practice rooms in the South wing.

“Also between the wings is the upper volume of the dance studio and main entrance foyer with a balcony overlooking the double volume and through the fenestration into the courtyard.”

Simple cost effective finishes that comply with sustainability requirements, and match the existing architecture, have been included while the St Mary’s community will hopefully be involved in providing artworks and decorative finishes.

Structurally the building comprises nine sections for each of the three levels, each section being defined by expansion joints. The ‘jigsaw’ of elements thus created required some tricky sequencing of the numerous components.

The basic structure is made up conventional piles and conventionally reinforced concrete frame with a variety of different slab types.

In the North and South wings for instance, there are trough slabs, the passages are flat slabs with a smooth off-shutter concrete finish while the seating of the theatre uses custom made timber shuttering due to the curved nature of the work including a number of off-shutter concrete balustrade walls.

At roof level permanent Bondec formwork is used over the entire triple volume theatre while on top of the gallery and main body of the theatre is a structural steel roof with sheeting.

The theatre roof consists of exposed timber trusses and detailed feature metal work in the North wing, with conventional gang nailed trusses in the South wing and a complicated curved structure over the main theatre and gallery area.

Acoustic elements, lighting wells and stair casing is involved in the theatre section. General interior finish is two coat plaster and paint while ceiling finishes are a combination of flush plaster and ceiling tile and the roofing is double Roman concrete tile. The facades feature concrete framed window surrounds from which protrude small balconies that also serve as sunscreens.

Adds Waller "This is a very exciting and prestigious project. The design team are committed and enthusiastic and the input to date has been commendable. This project offers incomparable facilities that will assist the school to be at the forefront of private education in South Africa".

FOR FURTHER INFORMATION CONTACT

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