

**UNIVERSITY OF SOUTH AUSTRALIA
SCHOOL OF NATURAL & BUILT ENVIRONMENTS**

PROGRAM: Bachelor of Construction Management & Economics (Hons)
Graduate Certificate in Building & Planning

COURSE: Construction & Fire Engineering 1N (Construction part of CIVE 4009)
Building Construction & Materials 6 (BUIL 5010) (Formerly 05475)

EXAMINATION: Internal Exam, Study Period 2, 2005
External Exam, Study Period 2, 2005

DURATION: 2 Hours of Exam time preceded by 10 minutes of Reading time, a total of **2Hrs 10 Mins**.
For **ENTEXT** students 10 minutes of Reading time plus 2Hrs & 20Mins of Exam Time ie a total of **2Hrs 30Mins**

EXAMINER: Assoc Prof George Zillante (Tel (08) 8302 2379)

REVIEWER: Jeremy Coggins

INSTRUCTIONS TO CANDIDATES:

- This exam is worth 50% of the construction component of the course
- You **MUST** answer all parts of the question
- The value of each part is noted adjacent to that part
- Open Book Examination ie all references permitted

NOTES FROM EXAMINER: Nil

Question (100 Marks)

A Developer is proposing to construct a 30-storey building on the seafront at Glenelg some 12kms from the centre of Adelaide. The building is intended to be a “landmark” building and take advantage of the sea and hills views and to provide a mix of uses viz:

- car parking for 2 storeys underground,
- shopping from the ground to the 5th floor,
- offices from the 6th to the 10th floor,
- residential apartments from the 11th to the 25th floor and
- penthouse suites from the 26th to the 30th floor.

You have been approached to tender for the project and, as part of the tender, you are required to submit a report on the following:

- What cladding system you would use and why? **(15 Marks)**
- What cladding material you would use and why? **(15 Marks)**
- What type of roofing system and material you would use and why? **(15 Marks)**
- What type of stormwater disposal system you would use and why? **(15 Marks)**
- What Intelligent Technologies you would use in the building and why? **(15 Marks)**
- What Constructability issues you would address and why? **(25 Marks)**

Prepare a report which addresses the six points listed above.

END OF QUESTION

(TOTAL MARKS AVAILABLE IS 100)