

Goodwood Parade, Burswood WA

CLIENT Goodwood Crest Pty Ltd

YEAR 2015 - 2016

SCOPE OF WORK

- Assessment of the ground conditions;
- Advice on suitable ground support systems and provision of lateral earth pressures for retaining wall design; and
- Recommendations on suitable foundation solutions and provision of foundation design parameters.



'The Crest' 21 storey building in Burswood

Douglas Partners was engaged to provide geotechnical advice for a proposed 21 storeys apartments tower together with a two level basement, located at the heart of the Burswood entertainment precinct with Crown Casino, Perth Stadium and Belmont Race Course nearby.

The Crest is located in East Perth, approximately 4 km east of Perth's Central Business District (CBD), and near the Perth Stadium and Crown Casino.

Douglas Partners geotechnical specialists were engaged to undertake an investigation, which included the drilling of one diamond core borehole to provide suitable soil and rock geotechnical design parameters for the design of a possible piled foundation solution bearing on rock material. The investigation also included two cone penetration tests to provide continuous data within the soils overlying the abovementioned rock material, for use in design of the proposed basement excavation retention system.

One of the limitations to the geotechnical investigation included the presence of a single storey building at the site, which was demolished following the geotechnical investigation. Test locations were carefully selected to overcome the abovementioned limitation and provide a reasonable

coverage of the site, whilst achieving the objectives of the investigation in a cost effective manner to our client Goodwood Crest Pty Ltd.

Several technically suitable types of foundation systems were suggested to our client, including a ridged raft, piled raft or a piled foundation system (contiguous flight auger piles, bored piles or barrettes), to achieve the financial and constructability objectives at this site. Suitable types of ground retention systems for the proposed basement were also suggested to our client, and included a contiguous piled wall or an interlocking steel sheet pile wall together with a separate internal drywall to overcome water ingress through clutches and corrosion.

Douglas Partners' office includes several engineers with suitable expertise and successful experience to assist our clients in developing practical, efficient and cost-effective recommendations for foundations and excavation support associated with the construction of multi storey buildings.



The project was completed successfully, and The Crest has become a landmark multi storey apartment tower in the Burswood entertainment precinct of East Perth.

"Douglas Partners' vast experience in undertaking investigations and design for similar projects and good knowledge of the ground conditions, allowed Douglas Partners to provide the designer and client with practical, workable and cost effective foundation and retaining system solutions."

Sergio Neves
Project Manager

