Project - Land Development





Mojo Urban Living

Client:

Muriel Partnerships

Location:

Cockburn Central WA

Construction Period:

Jul 20 - Sep 22

Project overview

The civil works for 111 lots of residential land development on Muriel Street were constructed by DM Civil in 3 rolling stages over 3 years, including a lead-in sewer main. DM Civil was introduced to a new developer through a trusted consulting engineering firm to form a team which was to deliver a high standard compact lot design subdivision.

The first stage of work required the task of working alongside a subcontractor engaged to produce very detailed high quality frontage walls with stair, gate and fence designs that challenged the traditional order of construction. This process tested the planning and logistics skills of the project management team and was to set the procedure for the subsequent stages.

The entire development was also dependent on a sewer link downstream of the development several streets away. A duplication of an existing portion of sewer was required to service the increased capacity required for the development. This was constructed by a separate crew in parallel with the Stage 3 lot production.

The modern and affordable lots produced, provide easy access to the Kwinana Freeway, the rail network and the Gateway Shopping Centre.

The Mojo Urban Living project resulted in the formation of a new client relationship that has proven to be a successful partnership in challenging times.

Significant achievements and benefits

The innovative design for the rain gardens accommodate a large proportion of the stormwater run-off capacity, thereby reducing the amount and size of the stormwater drainage storage required and eliminating the need for large retention basins.

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Due to the detailed face brickwork and rendered wall design and the number of walls with complex footings, the road and pedestrian pavements and underground services had to be constructed on an extremely tight programme. A typical challenge was the restriction of vibratory equipment to achieve earthworks and road pavement layer compaction in close proximity to the walls. Access for the wall builders to deliver bricks, sand, concrete and mortar was also a significant constraint on the remaining civil works programme.

The compact development designs affected construction techniques for the installation of sewers, stormwater drainage, irrigation, electrical and communications cabling. The order of installation was governed by wall footing construction and a number of live services that were required to be protected. These live services were also required to be connected to the lots by direct integration by the asset owners such as Synergy, Telstra and Water Corporation.

The final Stage 5 of the development civil works proved to be very successful in terms of progress from the original bespoke design. It drove a system of construction developed by the iterative process that began in Stage 3 and progressed from changes in design detail, materials selection and education of the construction crew in the timing requirements and order of construction for a complicated sequence of activities.

The final product delivered to the client was an impressive small lot development that resulted from teamwork. This project was the subject of an Achievement Award granted to the feature walling subcontractor, which spoke volumes of the quality of workmanship and the collaborative attitude of the site personnel.

Contact DM Civil to discuss your land development projects.

GUARANTEED PERFORMANCE

T: (08) 9492 1800 dmc@dmcivil.com.au