

A case study for the 30-year plan

When the South Australian government released its 30-year plan for greater Adelaide (<http://goo.gl/iaDFm>) a few years ago, one company that paid particular attention was FMG Engineering. The plan lays out a vision for Adelaide that limits urban sprawl and encourages high-density redevelopment of some inner suburbs. FMG is now reorienting its business to develop the capability to meet this future scenario.

FMG Engineering recently celebrated its 40th anniversary of providing civil engineering services in South Australia. Its traditional business has been in the residential market, developing strong relationships with a number of land developers. More recently, the business has been expanding into the Melbourne market. However, the recent market downturns and the 30-year plan are forcing the company to rethink its approach.

FMG chief operating officer Matthew Loftes, said: "We have a strong and proud history in urban development, but the 30-year plan has crystallised for us the need to reorient our organisation towards medium- and high-density developments. We will be positioning ourselves as urban renewal specialists."

The main premise behind the 30-year plan is catering for changing demographics that will see smaller households as the population ages and has less children – even as the population grows by an estimated 560,000 over the life of the plan. The aim of the plan is to develop more mixed-use precincts that provide better access to public transport and services, such as schools, health centres and recreation facilities. This development will be implemented using best practices in sustainable urban design.



FMG Engineering recently signed a professional development agreement with Engineers Australia. Present were (l-r) Engineers Australia general manager SA Division Caroline Argent; FMG Engineering managing director Peter Bayetto, FMG Engineering chief operating officer Matthew Loftes, Engineers Australia CEO Stephen Durkin and FMG Engineering operations manager Sean Gibbs.

This is resulting in much forward planning by various government agencies, including the rezoning of land around the city, major transport corridors and parkland. Currently, around 30% of inner Adelaide suburbia is high-density and 70% low-density. Over time, these figures will be reversed.

Loftes said: "We are responding to that vision and asking ourselves, how should we position ourselves to be part of that change? Primarily we are developing our capacity to deliver more multi-storey buildings and other aspects of urban centres, such as shopping centres, and intertwining retail spaces with residential accommodation."

Loftes believes there are two success factors moving forward in this environment – one relating to staff development and the other to client relationships. He said: "We see education and career development as a key differentiator as we diversify our offering and increase our capacity in these new areas. To be successful in this transition, we will need to retain our staff, and we want them to feel that they can grow with us and not have to go to a larger firm to increase their experience."

To that end, FMG Engineering has recently signed an agreement with Engineers Australia to join its professional development program.

Another aspect of FMG's strategy is to develop the advisory skills necessary to help their longstanding development partners make the same transition from traditional greenfield development to other kinds of building projects.

"They are looking for partners who can help them shift their capacity from single/double-storey development to multistorey projects. So while we already have a good relationship with our clients, we need to get even closer to them and understand their changing needs on this journey."

Loftes believes FMG is well positioned in the engineering consultancy market as one of the few mid-tier firms, with 135 staff, which allows it to offer a more complete solution to clients than smaller or single discipline firms, without the overhead of larger consultancies.

"There aren't many people who can do everything in this space. Often developers use an environmental consultant for one part of a project, say remediation of the ground, but it is treated separately from the build. However, often clever environmental solutions can be incorporated into the civil design. You can approach problem solving in a different way if you have complete control of the outcomes on the site."

While it is early days in the 30-year plan, FMG is aggressively bidding for early work to ensure it gains



Left: An artist's impression of the Bowden site. Above: The streets of the Bowden site are designed to be pedestrian-friendly, with no curbs and vegetation islands in the middle of the streets to slow traffic.

experience in the new kinds of developments. For example, it recently completed a contract for the civil infrastructure design in the redevelopment of an old factory site in Adelaide's inner western suburb of Bowden, which was bought by the SA government with the express purpose of showcasing the kind of development it wants to see (see <http://goo.gl/4uMpC>).

This showcase project is being led by the government agency Renewal SA and is best characterised by the concept of "walkable communities". Walkable communities are defined as "vibrant and safe new local neighbourhoods offering a mix of high-density, medium-rise, high-quality housing located with employment, mass transit connections, services and recreational/entertainment activities". Bowden is one of 11 such planned communities.

Business development manager for FMG Engineering Jeremy Clapp said that the walkable community concept primarily manages the movement of vehicles and pedestrians.

"Renewal SA wanted to avoid the use of gutters, which are tripping hazards, and it also wanted to slow down the movement of cars to provide a safe environment. The resulting design involved roads with traffic calming features and a reverse crown so that stormwater is directed to the centre of the road," Clapp said.

"The sewerage is set off-the-centre and there is also a recycled water network, with provision for community-

wide trigeneration systems. In addition, the road is quite a bit narrower than normal, with the buildings closer together to create a sense of atmosphere that the architects wanted. All of this created challenges for where to place services and was quite different from traditional greenfield developments on Adelaide's fringes.

"Also, there are vegetated refuges right in the middle of the road with numerous indents. To enable the trees to thrive in close proximity to road traffic, concrete containers with structural soils were developed, surrounded by pavers so that the tree roots are not damaged."

Bowden project director from the Renewal SA's Major & Residential Project Delivery unit Chris Menz said the project was complex "because of contamination and a significant volume of existing service, which were not all fully tracked."

"Also, approval processes were quite lengthy because the relevant departments were effectively assisting each other re-write the standards of how roads and pedestrian traffic interact."

Menz said that the project was documenting many learnings from dealing with innovative designs on a difficult site, including the need for an "over and above" approach to communication at all levels. However, the effort had been worth it because of a significant market take up from developers and end purchases. ●