The Oaklands Crossing Grade Separation Project will improve safety for all road users and ease traffic congestion by lowering the rail line under the road and removing the level crossing at the intersection of Morphett and Diagonal Roads.

The $174.3 million project is jointly funded by the Australian Government ($95 million), the South Australian Government ($74.3 million) and the City of Marion ($5 million), and will be delivered by the Public Transport Projects (PTP) Alliance with the Department of Planning, Transport and Infrastructure (DPTI).

What is piling?
Piling is the construction of columns in the ground that provide vertical and horizontal support to a structure, such as a bridge or retaining wall, by connecting to stable soil or rock.

Piles are installed vertically into the ground and can be made from reinforced concrete, steel or timber. There are various piling methods used in construction, but generally it involves boring or driving them into the ground.

For the project, the primary method of piling used will be Continuous Flight Auger (CFA) piling. CFA piling is an efficient method and has the least community impact.

A pile is formed by drilling a shaft into the ground with an auger (a drill resembling a large corkscrew) by a piling rig. Concrete is then injected under pressure through the hollow stem of the auger, and the auger is removed.

On completion of concreting, a steel reinforcing cage is inserted into the concrete to complete the pile (refer to image below).
What machinery will be used for piling works?
A 32 metre high CFA piling rig, cranes, excavators and concrete trucks will be used during piling works. During piling, the project will have a lot of truck movement around the local area to transport the steel reinforcing cages to site, as well as take spoil away.

Where will piling works be undertaken?
Piling works will be undertaken along the length of the Oaklands Crossing Grade Separation project site. Piling commenced in June, towards the east of the station for the new pedestrian bridge. The piling rig then moved to undertake works on either side of Morphett Road, for the vehicle bridge. These works will be completed in August and there will be a total of 141 piles installed for the project.

More information
To find out more about the Oaklands Crossing project and register for future email updates, you can contact the project team using the details below.

The steel reinforcing cages that will be inserted into the wet concrete to complete the piles