

Gleneig Tram Overpass – why we did it, how we did it and what we found?

Paul Gelston

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Infrastructure Priorities for 2012 and Beyond



- Upgrade the North-South Transport Corridor
- Revitalise Public Transport
- Road Safety
- Intelligent Transport Systems
- Regional Infrastructure
- Vibrant Adelaide



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Intelligent Transport Systems



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Priority – Invest in Transport Infrastructure



SIX YEARS AGO:

- Develop Outer Harbor and the Port of Adelaide
- Upgrade the North-South Transport Corridor
- Develop and Maintain Regional Freight Networks
- Increase Use of Public Transport



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Le Fevre Peninsula Transport Corridor

\$24 million (jointly-funded) Road & Rail Upgrade, Completed February 2008

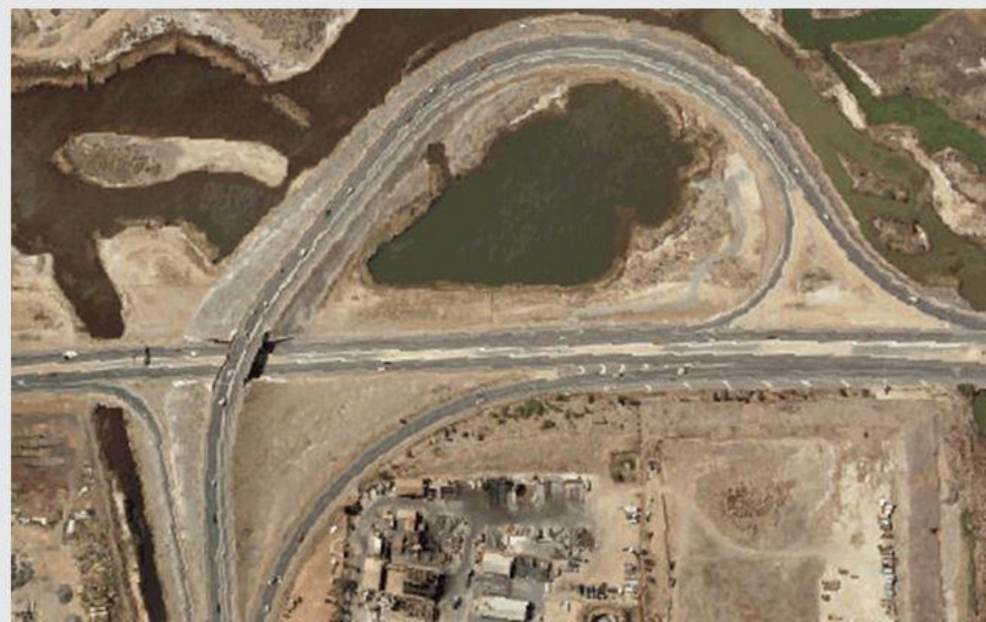


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Port River Expressway Stage 1

\$91.5 million Road Upgrade – completed July 2005



Port River Expressway Stages 2 & 3

\$178 million Road and Rail Bridges – completed August 2008

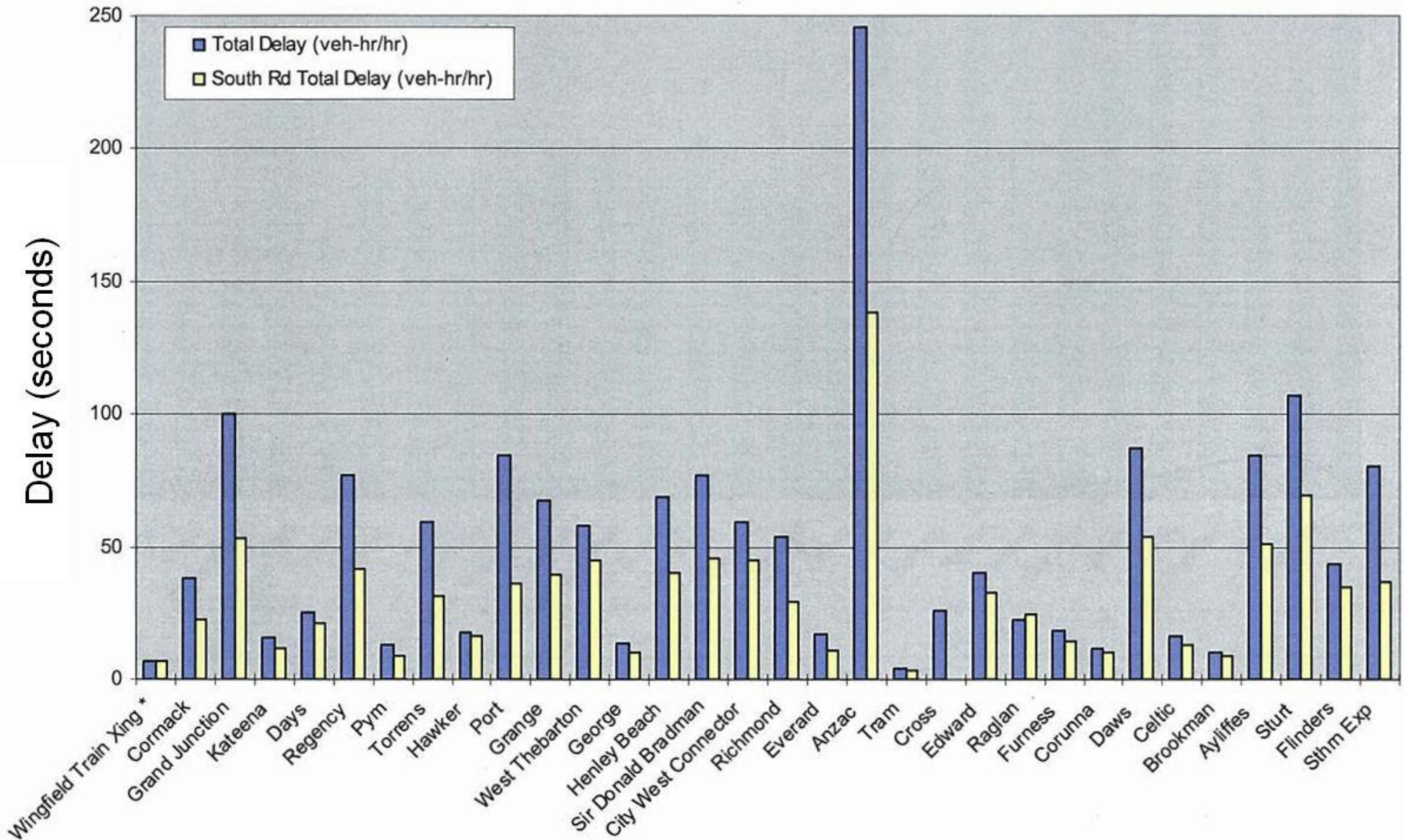


Adelaide's North South Transport Corridor



South Road Intersection Analysis

- Peak Hour Intersection Delay



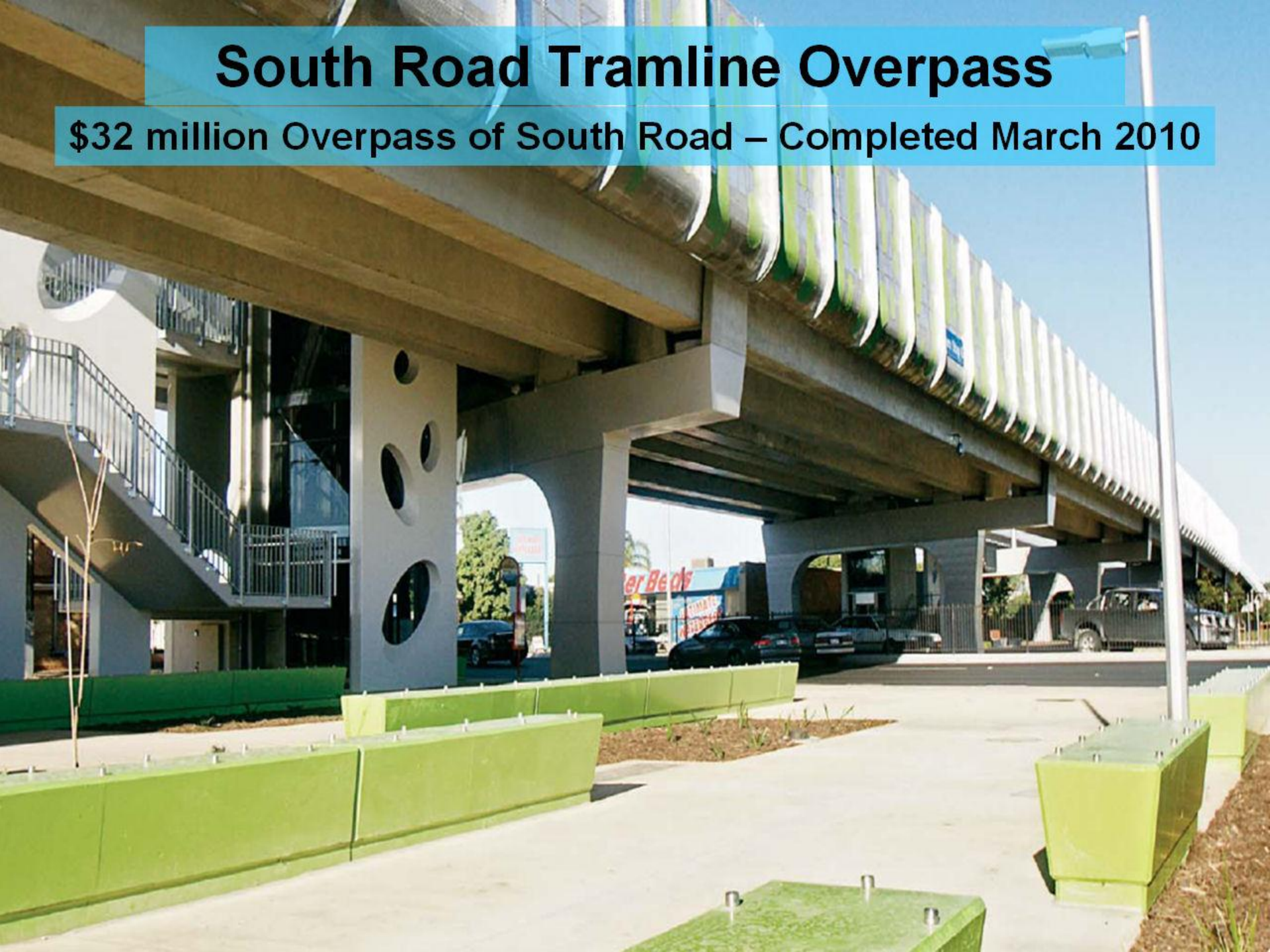
Gallipoli Underpass

\$118m 4-lane Underpass: Completed December 2009



South Road Tramline Overpass

\$32 million Overpass of South Road – Completed March 2010



Tram Overpass - Project drivers

- *Keep South Road moving*
- *Keep the trams moving*
- *Deliver 'on time' and within budget*
- *Deliver good urban design outcomes*
- *Provide noise mitigation*
- *Ensure a pedestrian friendly space*
- *Good bus/tram connections*
- *Cater for pedestrians and cyclists across South Road*

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Gleneig Tram Overpass



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Construction challenges in planning phase

- Maintaining two temporary tracks for tram operations
- Planning works to occur in specified tram closure periods with long lead times
- Maintaining clearances to operating tram services and overheads within a narrow corridor
- Maintaining safety at South road
- Minimising impact of works on adjacent community

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Construction Issues along the way!

- a safe temporary road crossing at South Road
- maintaining stormwater services along the corridor
- installation of 42 precast beams over three weekends – trams shut down, alternate bus services in place
- complexity of delivering works in narrow windows several weeks in advance
- Difficulty in undertaking works at night in residential areas
 - rail work is generally noisy – ask the residents!

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AG
SECURITY CHECK

SIZE

PEDESTRIANS
WATCH YOUR
STEP

FORCE

lead

CAUTION



NATIONAL

MOBILITY
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Cooper
653 266
800 448

ATF
49 17 16



Construction issues along the way!

- a smooth rail vertical alignment over an 8 span bridge structure with precast concrete beams
- a consistent 240mm between top of rail and platform surface where platform and tracks are on separate beams with different loading arrangements
- Dust and vibration management
- Property condition surveys – project gets blamed for every crack!

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Construction issues along the way!

- Engineering/technical
 - Ensuring safe working practices
 - Working in traffic, speed limits and enforcement
 - Crane operations – overhead clearances
 - Track protection requirements
 - Trained operators eg track welders for grooved rail
 - Fatigue and Alcohol



Issues along the way!

The importance of good urban design

- A finished project that is functional and ‘looks good’
- An expectation of ‘public art’
- Graffiti management challenges
- CCTV provision - 16 cameras
- Safety and security – throw screens, CPTED principles
- Landscaping schemes
- Tree removals along the corridor and clearances to overheads, impacts on tree stability

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Community and Environment – typical issues

- Management of noise
- Dust during construction
- Fumes from worksite
- Dealing with contaminated ground
- Working at night
- Need for alternate accommodation
- Property damage - drought or the project

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Community Engagement – what worked

- Establish a user friendly project website
- Establish an appropriately resourced 1800 enquiry line
- Use community liaison groups as a conduit of info.
- Use community updates to keep the community informed
- Integrated community engagement – not an ‘add-on’
- Adopt an early detailed and targeted approach for those most affected



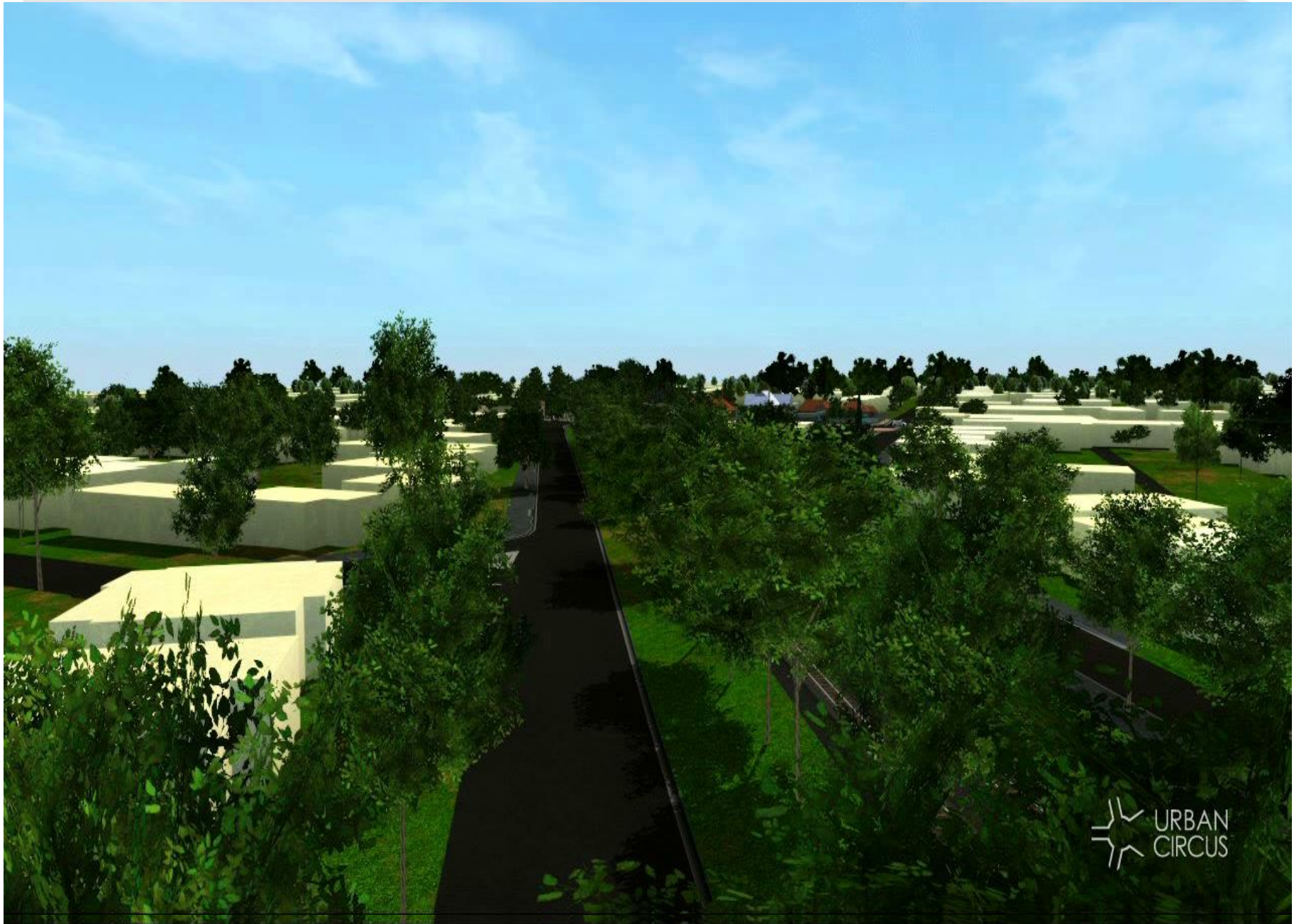
Community Engagement - learnings

- Ensure stakeholders understand the 'not negotiables' and those issues which they cannot influence
- Work with advocacy groups
- Use technology to 'inform' eg VMS, SMS, 3D animations
- Keep information up to date
- Use the media to assist with informing the community



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What did we learn!

- Plan, plan, plan and review
- The importance of informing and engaging with community
 - Can't do too much!

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Thank you



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