CONSTRUCTION UPDATE

Works are well underway on the Great Eastern Highway upgrade with the first section of asphalt laid on the new eastbound carriageway just prior to the Christmas holiday period. Throughout December and January, approximately 5,000 tonne of asphalt was laid which is around 26,000 square metres.

All works are progressing well throughout the site, including service relocation, sound and retaining wall installation, earthworks and pavement layers. To date, the project has utilised approximately 40,000 tonnes of recycled construction materials.

Service identification, relocation and protection is an extremely challenging part of the project and the team is progressing well with around 80% of gas and sewer works now complete, and around 35% of water and drainage works.

All of the 138 panels have been installed in the major sound wall at the western end of the project. Painting of the wall panels commenced at the beginning of February and is expected to take around two months to complete, while installation of the Plexiglas panels, that will bring the wall to full height, will begin from early March 2012.

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Various night work activities have been undertaken, particularly at the major intersections, which need to be modified in a number of stages to ensure disruption to the travelling public is minimised. The intersections at Belmont Avenue and Belgravia Street are now into the second of four stages of construction.

The first major traffic switch – moving eastbound traffic onto the new northern carriageway between Kooyong Road and Belmont Avenue, is due to take place around the middle of March 2012. This will mark a major milestone for the project.
As a result of community engagement, CEA has now incorporated two additional signalised intersections into the design of the upgrade. These will provide improved safety for pedestrians crossing the highway at both Acton Avenue and Abernethy Road.

The design of these crossings allows pedestrians to cross three lanes of traffic at a time, which is approximately 12 metres. They will be located on either side of the six metre median, in a staggered arrangement and will operate independently so the impact on traffic flow is minimised.

The addition of the signalised crossings means further safe locations for pedestrians and cyclists to cross the highway. These are also located in more densely populated areas and are closer to public facilities.

Importantly, the crossings are combined with signalised right turn vehicular movements into Acton Avenue and Abernethy Road. This has the dual benefit of improving safety of the right turns, plus increasing the proportion of time the signals are activated, thereby enhancing compliance by vehicles in favour of pedestrians.

During the project’s development, CEA carried out a study on the need and viability for additional crossings, which included a survey of the use of the current crossing points and current practice in Victoria. In taking into account all road users, this study recommended each of the above locations would warrant a signalised pedestrian crossing.

In addition to the crossings at the signalised intersections, pedestrians will be able to cross GEH via ‘cut throughs’ at the following locations:

- Armadale Road
- Hampden Street
- In front of Sandringham Village (east of Belmont Ave)
- Hehir Street
- Daly Street
- Keymer Street
- Aurum Street
- Lyall Street
PROFILE: CEA’S SERVICES SPECIALIST – NICK ROSTIN

There is a lot more to building a road than the physical work like relocating services, laying pavement and marking lines. To get to that point, significant time and effort goes into site investigation and designing the new road, which is something Nick Rostin does for a living.

As one of the project’s designers, Nick provides construction support in the area of services such as water, power, telecommunications and gas relocations.

He is assisted by a revolutionary software program called Navisworks, which is able to model the current road alignment and existing services identified within the project site in three dimensions. This is extremely beneficial in discovering clashes and preventing strikes, which can ultimately lead to unwanted service disruptions if undetected.

Throughout his day, Nick will work on various project elements and this lack of monotony is something he is very grateful for. He also enjoys the fast pace that working in an Alliance provides and thrives under the pressure of having to overcome design challenges quickly and efficiently so that construction can proceed as soon as possible.

Pressure and a challenge is not uncommon for Nick as while he is working at City East Alliance, he is also currently studying a Bachelor of Applied Sciences with double majors in Construction Management and Economics at Curtin University. Nick has been with design firm GHD for five years and already has an advanced Diploma of Civil Structural Engineering under his belt.

Since being with GHD, Nick has worked in around 10 towns across WA, from Kojonup to Port Hedland and the Cocos Islands. Originally, Nick wanted to be an architect, but decided in construction he could potentially “move mountains”, which was far more appealing.

Like many others working on the Great Eastern Highway upgrade, Nick hails from South Africa, so it is not surprising that his primary interest away from engineering is rugby. He has played first and second grade rugby for various clubs around the metropolitan region and has also received the honour of “Player of the Series” whilst being in a representative side.

But his talents don’t end there, he also recently completed his surf lifesaving course and as a bit of a ‘dare devil’ enjoys anything active including free diving, 4WD’ing, surfing and taking his motorbike for a spin throughout the hills.

At only 25 year of age, Nick is certainly someone to keep an eye on in the local construction industry in years to come, although if he has his way Nick will soon be travelling the world working on a variety of projects.

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CHANGES TO LOCAL FACILITIES

Adachi Park Boat Ramp
As mentioned previously, the Adachi Park boat ramp is now closed while the new eastbound carriageway is constructed in the area. The closest boat ramps are located in Burswood or Bayswater. The boat ramp and car park is schedule to be reopened around April 2012. In the interim, people can park in the existing facility in Ascot Waters.

Adachi Park Footpath and Cycle Path
The footpath and cycle path adjacent to the river is still operational, however access is restricted. Pedestrians and cyclists are encouraged to access the paths via the existing connections at Belmont Avenue/Tanunda Drive or via Belgravia Street.
Enhancing The Link From The Airport To The City

AN URBAN DESIGN FEATURE

As the gateway to Perth from the domestic airport, enhancing the aesthetic appeal of Great Eastern Highway (GEH) is also a key element of the upgrade.

City East Alliance has worked collaboratively with the City of Belmont, State Government departments and various local stakeholders to develop a unique urban design, which will not only improve the existing landscape but also create a dynamic entrance to the city.

This theme was later accepted by the various stakeholders concerned.

HISTORY, RESEARCH AND CONCEPT DEVELOPMENT

Considerable effort was invested into analysis of the cultural and heritage context of the project area. Following this research, it was recognised that the connection to the Swan River was not only a significant feature for the local community, but also part of the City of Belmont Vision.

Historically, the river and its bank was an important connection for the traditional owners of the land, used for transport and as a source of sustenance. To this day, the Swan River is still considered sacred for its mythological characteristics. Likewise, in European settlement, the river became the important lifeblood of the new city.

In addition, the location and shape of the physical road alignment closely mirrored the gentle meandering of the adjacent river.

Combining all of the above influences, the design team proposed a theme which reflected the serpentine snake, known as Wagyl and the meandering river. This was not only derived from the local indigenous significance, but also responded to the physical and cultural history of the area.

THE THEME

Travellers both into and out of the City will observe a strong pattern along the route, which is punctuated in places to highlight key features.

Repeated patterns and colours have been used along the corridor, and these will be combined with more intense features at key intersections. The colour tones that have been utilised in the design mirror the natural colours of the earth and river in the nearby environs. Reds, oranges and sand tones were chosen to reflect both our rich sunsets and dry earth.

These colours have been used extensively on the sound walls to illustrate the rise and fall of the West Australian sun and are complemented by blue and green Plexiglas panels (on top of the walls) to mirror the sky.

On the footpaths, multiple paving colours have been chosen to illustrate the many colours of the earth and rivers edge and the pattern responds to the gentle undulation of the road and verge. The meandering footpath also uses a hexagonal paving shape to reflect the scales of a snake.

The project site is extremely constrained and there is limited planting space however the Alliance is proposing to include trees, shrubs and other small plants in the median and adjacent to the road, where possible. All plant species chosen are native to Australia, the majority of which are from the South West region.
DESIGN CONSIDERATIONS

Elements such as the Plexiglas on the sound wall were included at heights above normal standing height to best protect the feature from graffiti. Similarly, the sound walls have significant embellishments to reduce the extent of hard, single plane surfaces on which to ‘tag’.

The safety of the network was also an important design consideration, as it had to be both aesthetically pleasing and functional. For example, hard landscaping elements like light poles and bus shelters were placed in locations to not obstruct motorists’ vision and soft landscaping elements, such as vegetation, included species which either grow tall to limit foliage at vehicle height or were low lying.

In addition, low or no maintenance features were chosen, as upkeep on this road means lanes closures and therefore impacts the functionality of the network.
INTERSECTION CHANGES

As part of the project, all major intersections on Great Eastern Highway, between Kooyong Road and Tonkin Highway, are being improved to include additional turning lanes and revised pedestrian crossings.

In order to complete these upgrades, movements at each intersection will continue to be restricted at various times throughout construction.

To ensure the travelling public has appropriate information about the changes, CEA has developed brochures for each intersection detailing possible vehicle and pedestrian/cyclist movements.

Most of the major intersections have undergone some change to date, with the most recent at Belmont Avenue and Belgravia Street, which are now in Stage 2 of the construction process.

The next two intersections to be modified are those at Epsom Avenue and Hardey Road. Further information on the possible movements at these intersections is available in the specific brochures that have been developed for each, which are available on our website, or on request through our office.

Signage will also be in place along the highway making the travelling public aware of temporary traffic changes.

As part of improving safety and efficiency of the highway, existing uncontrolled right turns will be progressively closed at Grandstand Road, Leake Street and Lyall Street. Instead, road users will be able to safely make right and U-turns at the signalised intersections on completion, and these improvements will also be progressively introduced during construction.

CEA will work hard to minimise disruption throughout construction and apologise for any inconvenience caused as a result of these essential traffic changes. Thank you for your patience.