KINGSFORD SMITH DRIVE UPGRADE

Designed and constructed by

lendlease

An initiative of

BRISBANE CITY

Dedicated to a better Brisbane

NEWS DEC 2017

Community Newsletter

IN THIS ISSUE

Not *just* a road upgrade

Your questions answered

Follow the numbers

Come on in, Hamilton is open for business

Photo gallery

Christmas closure

PLANT SPECIES

TREES

- Weeping Fig
- Hill's Fig
- Queensland Kauri
- Illawarra Flame Tree
- Jacaranda
- Poinciana

PLANTS

- Bird of Paradise
- Lacy Philodendron
- Palm Grass
- Natal Plum
- Bossa Nova Bromeliad
- Pineapple Zamia

GROUNDCOVER

- Just Right Liriope
- Wild Iris
- Spider Lily
- Xanadu Philodendron

NOT *JUST* A ROAD UPGRADE

The Kingsford Smith Drive upgrade is more than just a new road. The project will not only ease congestion on one of the city's busiest roads but will transform the face of Brisbane, creating a new entry statement worthy of Australia's new world city.

Visitors and locals will enjoy views across the river of a growing city skyline, framed by large fig trees and Queensland Kauris as they travel to and from their destination.

In November 2017, the first new trees on the project were planted on the southern verge of Kingsford Smith Drive near Remora Road. The trees will provide greenery and shade to the new footpath and are just the first steps in creating a sub-tropical boulevard.

Upon completion, more than 100,000 new plants will have been planted across the three-kilometre upgrade. These plantings will be made up of a combination of mature trees, currently being grown on farms on Brisbane's outskirts, as well as shrubs and groundcover plants from local Brisbane nurseries.

New trees and plants on the southern verge of Kingsford Smith Drive near Remora Road

An artist's impression of the landscaping design on Kingsford Smith Drive

KINGSFORD SMITH DRIVE UPGRADE

Designed and constructed by

lendlease

An initiative of

BRISBANE CITY

Dedicated to a better Brisbane

YOUR QUESTIONS ANSWERED

We often get asked questions about the machinery, materials, people and processes it takes to build a major road such as Kingsford Smith Drive, so here are some answers!

What are the tall yellow machines next to the river and what are they doing?

Weighing in at approximately 85 tonnes and standing at a height of 18 metres, the yellow machines working within the marine construction area are piling rigs.

These machines will install close to 200 bored piles between Bretts Wharf and Cameron Rocks Reserve to provide a solid foundation for the new 1.2 kilometre river walk structure and anchor it to the underlying rock.

Installing bored piles involves drilling a circular hole into the ground, installing steel reinforcement and then filling the bore hole with concrete.

The bored piling method generates less noise and vibration when compared to conventional driven piling methods.

In 2017, 83 bored piles were installed.

What is being lifted into the Brisbane River?

The project team has designed and installed a unique erosion protection system incorporating concrete mats that bend and flex to rest on the natural surface of the river bed and protect it from being washed away during flood events.

The mats, which are up to 40 metres long and weigh up to 53 tonnes, are made from between 100 and 375 individual concrete blocks held together by a high strength fabric.

Each mat was lifted into place using a specially designed lifting frame with an inbuilt GPS and sonar positioning system to ensure they were perfectly in place.

One of the two piling rigs currently in operation within the marine construction area

One of the unique flexible mats being lifted into place in the Brisbane River

What is the road surface made of?

Road surfaces are typically constructed in layers and Kingsford Smith Drive is no exception. The new road will have several layers, including base layers and asphalt layers. Each is placed individually and compacted using rollers and other compaction equipment.

The lower layers are built using a high-grade gravel that can be easily compacted to create a very hard surface. Each layer is tested to ensure it has been correctly compacted before the next layer is placed.

The black layers at the top are made from asphalt. Asphalt is a mixture of aggregates (crushed stone, gravel and sand), and bitumen (a sticky petroleum by-product). The asphalt mix is heated to a high temperature, then laid onto the road in long straight runs using specialist paving machines.

Asphalt itself is placed in multiple layers, with each layer being compacted with rollers and allowed to cool before the next layer is placed. There are five layers of asphalt, including the final 'wearing course' which will be placed at the very end of the project.

The Kingsford Smith Drive upgrade will use approximately 70,000 tonnes of asphalt to build the new road, with up to 20% of this recycled from old roads.

What's being installed under the road?

The Kingsford Smith Drive upgrade team is systematically renewing and reconfiguring the 120-year-old network of power, water, gas, telecommunications and waste infrastructure beneath Kingsford Smith Drive to meet future community needs.

Before a single shovel of dirt is moved the team identifies the exact location of everything already in the ground using radars and vacuum excavators.

Existing services are mapped using a 3D computer model and then the new services are added to the model so that any conflicts can be identified and resolved before excavation commences.

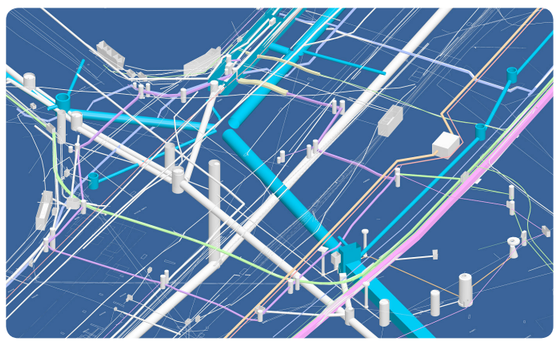
The team then excavate the trenches into which the new services are placed. Each service has unique space, depth, and strength requirements meaning every service must be installed separately with every trench subtly different to the last.

Once installed the utility owner such as Energex, Queensland Urban Utilities, Telstra, Optus and others inspects and tests its new asset and, if satisfied, commissions it into service.

Following commissioning, the service becomes live and must be protected for the remainder of the project.

A grader is used to level the ground prior to installation of the base layers

A roller compacts an asphalt layer on one of the new lanes of Kingsford Smith Drive



A 3D model of services located under Racecourse Road

KINGSFORD SMITH DRIVE UPGRADE

NEWS
DEC
2017

COME ON IN, HAMILTON IS OPEN FOR BUSINESS!

The area surrounding the project is a treasure trove of dining and retail experiences. Racecourse Road, Portside Wharf, Hamilton Harbour, Eat Street and the many local delights in between make this area popular for locals and visitors.

While it might look different during construction, be assured customers can still access and enjoy all their favourites in the area. We're encouraging our project staff to shop local, and hope you can too. Keep an eye out for signage to assist you in travelling safely around construction works.

KEEPING UP WITH KSD
2017 WRAP UP

FOLLOW THE NUMBERS

- People inducted: 3,146
- Electrical wire installed: 5km
- Fibre optic cable installed: 2km
- Stormwater pipe installed: 1.4km
- Water main installed: 2.1km
- Scour mats placed: 292
- Piles installed: 83
- Fascia panels installed: 48

PHOTO GALLERY

Did you know that the Kingsford Smith Drive photo gallery is updated regularly?

Visit www.ksdupgrade.com.au/the-project/gallery to see the latest progress on the project.

CHRISTMAS CLOSURE

The Kingsford Smith Drive upgrade will shut down for Christmas between Friday 22 December 2017 and Wednesday 3 January 2017.

If there are any issues during this time, the team will be available on 1800 084 383 (freecall 24/7).

Phone: 1800 084 383
Email: info@ksdupgrade.com.au
Web: www.ksdupgrade.com.au
Visit: Kingsford Smith Drive upgrade Visitor Centre
Post: GPO Box 2777, Brisbane, QLD 4001

Designed and constructed by

lendlease

An initiative of

BRISBANE CITY

Dedicated to a better Brisbane