

INFRASTRUCTURE SERVICES COMMITTEE**21 MARCH 2018****1****PIER POINT ROAD TRIAL 3D PEDESTRIAN ZEBRA CROSSING**

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RECOMMENDATION:**It is recommended that Council:**

- 1. Carry out a trial 3D Zebra Crossing on Pier Point Road as described in this report subject to Department of Transport & Main Roads (TMR) and RPEQ approval.**
- 2. Assess the effectiveness of the trial after a period of 6 months.**

EXECUTIVE SUMMARY:

This report provides an overview of a proposed 3D Pedestrian Zebra Crossing trial, including the purpose, location, costs and risks involved.

The location of the proposed 3D pedestrian zebra crossing trial is on Pier Point Road, Cairns CBD. Pier Point Road is essentially a road that provides access to a car park, has a low speed environment, and a speed limit of 40 km/h. The road is one lane in each direction with a pedestrian refuge median that allows for pedestrian storage between the traffic lanes. The trial is proposed to be conducted on both lanes at the site, to provide consistency for both drivers and pedestrians. The site is an existing zebra crossing.

The aim of this project is to change driver behaviour by encouraging drivers to think the pedestrian crossing is obstructing them, resulting in drivers to slow down.

A report will be prepared and presented to Traffic Management Practices Group and Council's Road Safety Traffic and Transport Advisory Committee, addressing all of the measures described in MUTCD, at the conclusion of the trial.

BACKGROUND:

A Council in an Icelandic fishing village called Ísafjörður recently installed a 3D pedestrian zebra crossing which creates the impression that pedestrians are walking on white blocks suspended in the air. The aim of this optical illusion was to change driver behaviour by encouraging drivers to think the pedestrian crossing is obstructing them, resulting in drivers slowing down. Residents in the town hope the pedestrian crossing will function not only as eye-catching artwork, but also as a form of protection for pedestrians on the town's residential streets. Similar schemes have been installed in New Delhi in India, Osaka in Japan, Beijing and Chengdu in China, and in Germany and Kyrgyzstan.

A TMR representative gave a brief presentation on the 3D pedestrian zebra crossing at a Traffic Management Practices Group meeting in December 2017. Councils have been asked if there is any interest in undertaking a trial of a similar 3D pedestrian zebra crossing in Queensland. Cairns Regional Council has since shown interest.

COMMENT:

The location of the proposed 3D pedestrian zebra crossing trial is on Pier Point Road, Cairns CBD, as shown in Attachment 1. Pier Point Road is essentially a road that provides access to a car park, has a low speed environment, and a speed limit of 40 km/h. The road is one lane in each direction with a pedestrian refuge median that allows for pedestrian storage between the traffic lanes. The trial is proposed to be conducted on both lanes at the site, to provide consistency for both drivers and pedestrians. The site is an existing zebra crossing.

The innovative trial is to be conducted for a period of at least 6 months. In the event that the line marking changes cause an increased risk for either drivers or pedestrians during that time, the trial will be terminated.

Prior to installation of the 3D pedestrian zebra crossing, details of the changes to the existing crossing would be advertised via social media and the Cairns Post. This will allow some drivers and pedestrians who use Pier Point Road to familiarise themselves with the changes, limiting distraction and confusion when driving through the site for the first time.

Current vehicle speeds at the trial site would be recorded and compared with speeds after the instalment of the 3D pedestrian crossing. Speeds would be collected using a speed 'gun' in accordance with Part 4 MUTCD - Speed Controls, Appendix G.

Driver and pedestrian behaviour would also be recoded, using CCTV. Current driver and pedestrian behaviour would be compared with behaviour after the installation of the 3D pedestrian crossing. Any changes of behaviour are to be recoded and assessed in terms of pedestrian crossing compliance and road safety.

A survey of drivers and pedestrians of the 3D pedestrian crossing is also proposed to assess the effectiveness of the trial.

Trial signage would be installed to increase motorist's awareness of the changed traffic conditions, and lower the risk of an incident.

A report would be prepared and presented to Traffic Management Practices Group and Council's Road Safety Traffic and Transport Advisory Committee, addressing all of the measures described above, at the conclusion of the trial.

OPTIONS:

Council has the following options:

1. Install the 3D Pedestrian Zebra Crossing as a trial for a period of 6 months, and monitor its effectiveness,

Or

2. Not install the 3D Pedestrian Zebra Crossing and retain the existing crossing.

CONSIDERATIONS:**Risk Management:**

There are several risks involved with the trial 3D pedestrian zebra crossing, which need to be considered. These include the following:

- Driver distraction of the 3D “artwork”, possibly resulting in motorists to be inattentive of pedestrians crossing the road;
- Driver confusion and not adhering to road rules as the 3D crossing line marking is not as per MUTCD, hence not giving way to pedestrians;
- Driver overreaction to the optical illusion, possibly resulting in vehicles slamming their brakes which could result in a rear end crash;
- Possibility of pedestrians posing in the middle of the road to take photos while vehicles are approaching.

Council Finance and the Local Economy:

The cost of the trail would be approximately \$30,000 and can be incorporated into Council’s Capital Works Program (Transport assets).

Statutory:

The proposed installation of the 3D pedestrian zebra crossing does not strictly comply with standard MUTCD provisions, therefore it requires certification by a suitably experienced RPEQ and a report submitted to TMR for approval, prior to installation. This requirement is detailed in Clause 1.13 of the harmonised MUTCD Part 1. This would be done if the trial was endorsed by Council.

CONSULTATION:

Community engagement would occur in the form of direct consultation with the Pier Shopping Centre tenants, and via social media, the Cairns Post and Council’s website.

ATTACHMENTS:

Attachment 1 – Locality map

Attachment 2 – Artist's impression

Attachment 3 – 3D pedestrian crossing in Ísafjörður

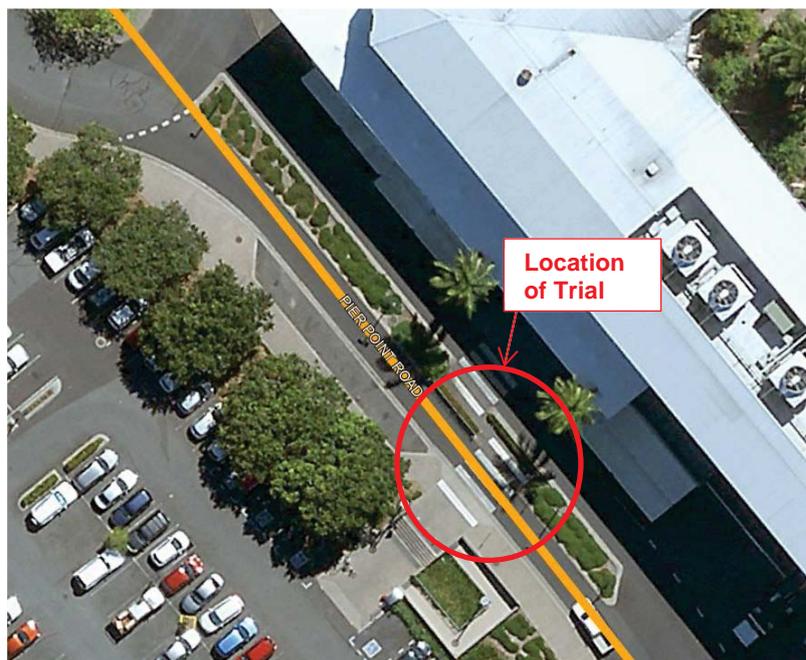
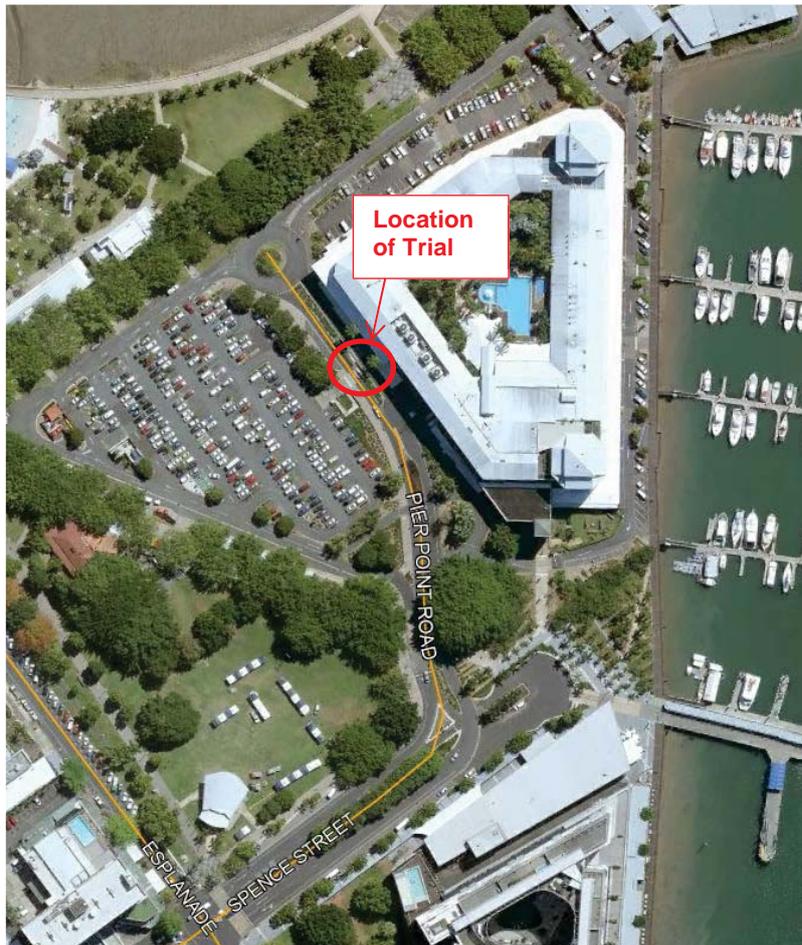


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Attachment 1 - Locality map



Attachment 2 – Artist's impression



Attachment 3 – 3D pedestrian crossing in Ísafjörður and Beijing

