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Ref: 22024 26th August 2022

Brett Hutton JCDecaux Unit 2-3, 182-190 Euston Rd, Alexandria NSW 2015

## RE: Western Distributor, Lot 1012 DP870307, Pyrmont, Sydney, 2009 Footing for the proposed Digital Signage, Structural Feasibility Statement

This Structural Feasibility Statement has been conducted by Dennis Bunt Consulting Engineers Pty Ltd (DBCE) at the request of JCDecaux.

The purpose of this statement is to investigate the structural feasibility of the footing for the proposed digital sign at the Western Distributor, Pyrmont Sydney and address the requirements of clause 2.99 of the of the State Environmental Planning Policy (Transport & Infrastructure) 2021. "Excavation in, above, below, or adjacent to rail corridors."

Clause 2.99 applies to the proposed footing as it "involves the penetration of ground to a depth of at least 2m below ground level (existing) on land" and is "within 25m (measured horizontally) of the ground directly above an underground rail corridor."

The proposed sign is documented in the architectural drawings by Tzannes 21034/000(C), 100(B), 200(C), 300(D) and 900(B).

## **Structural Description**

The top of the proposed sign is to be located approximately 21.8m above the ground and 12m above the Western Distributor elevated roadway so the sign can be viewed by outbound traffic on the Western Distributor.

The proposed sign is a digital screen with a landscape orientation and approximate dimensions of 12.48m x 3.2m.

## Footing

The footing for the sign is to be located on Sydney Trains land adjacent to the Light rail station.

It is proposed that the structures column will be fixed to a 3m high concrete plinth located on sloping ground that visually appears to be rock. The rock under the plinth will be excavated locally to provide a horizontal surface for the plinth to bear on.

Depending on a future geotechnical report the concrete plinth will be either

- 1. Fixed to the top the rock by drilling anchors into the rock surface.
- 2. Fixed to a concrete pad that sits on piles that will extend into the ground and below the surface of the adjacent track if the rock is of low strength.

The new footing will not impact the existing railway track provided it is installed as above and the rock face which extends down to the side of the track remains stable during and after installation of the footing and sign. Rock anchors may need to be installed into the side of the rock face before any excavation is done depending on recommendations in the future geotechnical report.

## Recommendations

A geotechnical report is commissioned to provide information on the soil/rock profile and properties to enable the footing to be designed.

Either the 3m diameter concrete plinth is anchored into the rock with reinforcing bars epoxied into the rock or if the rock is of low strength the concrete plinth is fixed to a concrete pad on piles and the piles extend below the level of the rail corridor.

Rock anchors are added to the side of the rock face if recommended in the geotechnical report

If you have any questions, please do not hesitate to ring the undersigned on 9451 7757

Yours Faithfully,

John Linsell BE(Hons), MIEAust, CPEng, NPER(Struct)

for Dennis Bunt Consulting Engineers Pty Ltd