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JCDcaux
Level 6, 1 York Street
Sydney, New South Wales 2000

Att: Kanika Srivastava

Church Street Overpass, Hunter Hill, NSW
Northbound Digital Supersite sign
Width of proposed signbox

Dear Kanika,

As per your request Dennis Bunt Consulting Engineers (DBCE) specify the reasons for the width of the proposed signbox for the Supersite digital sign at Church st Overpass, Hunter Hill, NSW.

1. General comments

We note the width of the signbox as shown on the DA drawings by Arcadis was 850mm.

Generally, the width of a digital supersite signbox to be fixed to the side of a bridge with the hatch at the end of the box is 920mm. This allows for a 170mm wide screen, one vertical 75mm RHS members at the front and one at the rear of the box and a 600mm clear walkway as required by AS1657 clause 5.1.3.

ie $170 + 75 + 600 + 75 = 920\text{mm}$.

With the hatch at the end of the box a 600mm x 600mm hatch in the top of the box behind the ladder is feasible.

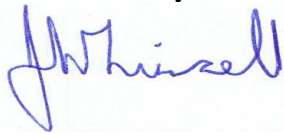
2. Proposed Hunters Hill Signbox

There are two aspects of the proposed Hunters Hill signbox which are different from the typical signbox and have caused it to be wider.

1. The height of the signbox specified in the DA drawings by Arcadis was 3200mm which is the same dimension as the height of the screen. It is assumed this was so the signbox would not be lower than the bridge soffit or higher than the existing handrail. Generally, the total height of the signbox is 150mm greater than the screen so the 75mm deep horizontal members in the signbox do not interfere with the bolts fixing the screen to the signbox.
Where the box is the same height as the screen the verticals members are placed in front of the box's front horizontal members so the screen can be fixed to the vertical members and avoid clashing with the front horizontal members at the top and bottom of the box. This increases the width of the box by 75mm.
2. The hatch was moved from the end of the box as shown on the Arcadis DA drawings to a more central location at the request of TfNSW as it was deemed unsafe to have the hatch at the end of the box. When the hatch is located away from the end of the box it must be rotated from being parallel with the end of the box to parallel with the rear of the box. To achieve a 600mm x 600mm hatch behind the ladder the clear distance between the horizontal members must be increased to 820mm instead of 600mm as the rear of the 20mm rungs in the ladder inside the box need to be 200mm clear of the boxes rear horizontal member as specified in AS1657 clause 7.4.6. This increases the width of the box by 220mm.
3. The total width of the box is now 1220mm. ie $170(\text{screen}) + 75(\text{front vertical}) + 75(\text{front horizontal}) + 600(\text{clear distance for hatch}) + 20(\text{rung width}) + 200(\text{distance from back of rung to rear horizontal}) + 75(\text{rear horizontal}) = 1215\text{mm}$ (rounded to 1220mm)

If you have any questions, please do not hesitate to ring the undersigned on 0400 023 714.

Yours Faithfully,



John Linsell BE(Hons), MIEAust, CPEng, NPER(Struct)
for Dennis Bunt Consulting Engineers Pty Ltd