
From: Bob Vanselow <bobyrail@bigpond.com.au>
To: warren@wads.id.au <warren@wads.id.au>
Date: Thursday, April 28, 2011 3:13:59 PM
Subject: Spencer St Tram Renewals
Folder: Inbox/Wtramwad

Warren,

I'll be doing a copy for Chris when the photo-copier gets 'well' again (hopefully next week or so), so can easily do another one for Hawthorn.

I also have kept a copy of some other MMTB reports produced during my time there (1972 - 1980), which may be of interest (or you may already have):

"Construction of Concrete to the Surface Tramway Track - Procedures used from April 1975" (by RGV again);
"Upgrading the Tracks of Melbourne's Street Tramways" (the abridged version for the 3rd International Rail Sleeper Conference, Brisbane in Sept 1979);
"Proposed East Burwood Tramway Extension - Warrigal Road to Middleborough Road, Feasibility Study" June 1974;
"Melbourne - Doncaster & Templestowe, Public Transport Proposals, Submission to the Parliamentary Public Works Committee" August 1974;
"Central Sydney Tramway: Feasibility Study" prepared by MMTB, September 1974;
"Trial Installation of Barrier Kerbing: Nicholson Street - Fitzroy" March 1976;
"Separation of Trams and Motor Traffic Using Safety Bars: Nicholson Street." Report to Melbourne City Council, Road Safety & Traffic Authority, and MMTB June 1979;
"Improving Street Public Transport - Some Possible Solutions" by RG Vanselow and RB Sinclair of MMTB, paper presented to the 8th ARRB (Australian Road Research Board) Conference at UWA in Perth, August 1976.

I also have some material I prepared for Collingwood Technical College's TAFE course for the Victorian technical teachers' course in "Civil Design Drafting II" in the final year of the course "Civil Engineering Certificate for Design draftsmen", May 1980. This covered the design aspects for new tram route extensions (like Burwood Highway, and later applied along Plenty Road to Bundoora).

Going way back in time, as part of my final year Civil Engineering course at Univ. of Melb. (in 1969) I studied Transport Engineering and undertook a thesis called "Tramway Reserved Tracks- A Comparative Study", which compared the tram operational performances along High Street Prahran and the parallel Dandenong Road reserved tracks. There's a copy here, somewhere. Even 'Yarra Trams' might be interested!

About the same era, in June 1968, the MMTB's Engineering Dep't - Planning Branch (which I joined in 1972) issued their report "Maximum Capacity of a Double Track Tramway", which was aimed at comparing Swanson Street's tram-passenger moving capacities:
At street level (as then existing with safety zones and traffic lights at each major intersection); versus Underground (as then being proposed/explored);
Using different tram designs (SW6 base case; faster accelerating & braking PCC #980; Vehicle lengths of 50, 100 or 150 feet; Stopping Places of 1, 2, 3 or 4 Berths; Load-Unload Duration versus doorways, etc.).

This was followed in April 1976 with a brief 3 page technical document titled "New Non-Articulated Tramcar for Melbourne" (i.e. the first 'Z' class).

Do you have the various papers prepared by CL (Louis) Fouvy (who was also with MMTB during my time there, but was based at Preston Workshops)? He has presented these to the likes of the RTSA, in particular their Conference on Railway Engineering, held in Melbourne, April-May 2006.... his paper was titled "Planning Rapid Transit Services for Large Conurbations".

Anyway, must shoot off to Melbourne (by car), as we're flying over to Devonport tomorrow morning, then driving to Hobart for my son's 30th, before flying and driving home Sunday evening. It's not quite 'En Zed', but it'll have to do for now!

Enjoy the sun and the scenes.

Best regards
Bob V.

-----Original Message-----

From: tramwad@alphalink.com.au [mailto:tramwad@alphalink.com.au]
Sent: Thursday, 28 April 2011 6:03 AM
To: Bob Vanselow
Subject: RE: Spencer St Tram Renewals

Bob,

would be good to get some your thoughts and docs for the Hawthorn collection before all this is lost.

PS another lovely sunny day here.

Warren

On Wed, Apr 27th, 2011 at 11:43 PM, Bob Vanselow <bobyvrail@bigpond.com.au> wrote:

> Chris, et al,

>

>

>

> The chamfered "Timber Ties" track structure was the fifth of eight
> development stages used in Melbourne, starting with Cable Track and
> leading through to the pre-1979 "Concrete to Surface, with Dropped
> Margin" design that was being used extensively during my time on MMTB
> track reconstruction.

> It was the last of the development stages to use timber as a component
> of the track structure.

>

>

>

> The timber 'Ties' were only 75 mm deep (c.f. Earlier timber 'Sleepers'
> cast

> into mass concrete, which were 115 mm deep; and even earlier
> longitudinal continuous 'Timber Stringers' cast into mass concrete,
> which were only 50 mm deep). The 'Ties' were chamfered along both top
> corners except at both rail seats [where rails/rail clips were
> through-bolted down only to the underside of the Ties. Other (longer)
> 'Anchor Bolts', positioned well outside of both rails, penetrated down
> into the mass concrete. The tops of two of these Anchor Bolts can be
> seen in your 1st photo, as can the top of one of the rail-seat bolts].

>

>

>

> From the bottom, the track structure consisted of a minimum 100 mm
> thick layer of ashes (also filling over a longitudinal agricultural
> drain laid along the inside floor of the original cable tunnel); then
> 180 mm of the mass concrete beneath the Ties and 125 mm above their
> top (giving the total mass concrete slab thickness of 380 mm); then
> finished with 40 mm of asphalt road surface.

>

>

>

> For more details, refer to "Upgrading the Tracks of Melbourne's Street
> Tramways" (unabridged version is 61 pages + figures) by yours truly
> and presented (in abridged form) to the 3rd International Rail Sleeper
> Conference, held at Brisbane in Sept 1979.

>

>

>

> Looks like an interesting track structure..particularly how the upper
> section (around e-clips and above) was created.

>

>

>

> So, if you could spare the time, I would really appreciate seeing some
> more of your fine photo's, Chris.

>

>

>

> Many thanks, and best regards,
>
> Bob V.
>
>
>
>
>
>
> From: Chris.Tasker@ghd.com [mailto:Chris.Tasker@ghd.com]
> Sent: Wednesday, 27 April 2011 11:57 AM
> To: tramwad@alphalink.com.au; bobyvrail@bigpond.com.au
> Cc: tasmont@bigpond.net.au
> Subject: Spencer St Tram Renewals
>
>
>
> Hi Warren and Bob,
>
> A big weekend of Tram Works over the Easter Break. GHD had done all
> the design for the renewals in Spencer St, which were constructed by
> Coleman Rail and Fulton Hogan.
>
> Found a couple of interesting things - see photos of old timber sleepers.
> Looks like they had the top corners chamfered off - was this common
> practice?
>
> We've got quite a lot of photos from the weekend, if you're interested
> I can burn some to disc for you.
>
>
>
> Regards
>
> Chris Tasker
> Track & Civil Engineer - Rail
>
> GHD
> T: 61 3 8687 8531 | M: 61 430 717 363 | V: 318 531 |
> chris.tasker@ghd.com Level 8, 180 Lonsdale Street Melbourne VIC 3000
> Australia | <http://www.ghd.com/> <http://www.ghd.com/>
>
> <http://www.ghd.com/sectors/water/> Water |
> <http://www.ghd.com/global/sectors/energy--resources/> Energy &
> Resources
> |
> <http://www.ghd.com/sectors/environment/> Environment |
> <http://www.ghd.com/global/sectors/property--buildings/> Property &
> Buildings | <http://www.ghd.com/global/sectors/transportation/>
> Transportation
>
> Please consider the environment before printing this email
> _____ This email and all attachments are confidential.
> For further important information about emails sent to or from GHD or
> if you have received this email in error, please refer to
> <http://www.ghd.com/emaildisclaimer.html> .
>
> _____
> This e-mail has been scanned for viruses by MessageLabs.
>
>

From: Bob Vanselow <bobvrail@bigpond.com.au>
To: warren@wads.id.au <warren@wads.id.au>
Date: Wednesday, April 27, 2011 11:43:11 PM
Subject: Spencer St Tram Renewals
Folder: Inbox/Wtramwad

Chris, et al,

The chamfered "Timber Ties" track structure was the fifth of eight development stages used in Melbourne, starting with Cable Track and leading through to the pre-1979 "Concrete to Surface, with Dropped Margin" design that was being used extensively during my time on MMTB track reconstruction. It was the last of the development stages to use timber as a component of the track structure.

The timber 'Ties' were only **75 mm** deep (*c.f. Earlier timber 'Sleepers' cast into mass concrete, which were 115 mm deep; and even earlier longitudinal continuous 'Timber Stringers' cast into mass concrete, which were only 50 mm deep*). The 'Ties' were chamfered along both top corners except at both rail seats [where rails/rail clips were through-bolted down only to the underside of the Ties. Other (longer) 'Anchor Bolts', positioned well outside of both rails, penetrated down into the mass concrete. The tops of two of these Anchor Bolts can be seen in your 1st photo, as can the top of one of the rail-seat bolts].

From the bottom, the track structure consisted of a minimum 100 mm thick layer of ashes (also filling over a longitudinal agricultural drain laid along the inside floor of the original cable tunnel); then 180 mm of the mass concrete beneath the Ties and 125 mm above their top (giving the total mass concrete slab thickness of 380 mm); then finished with 40 mm of asphalt road surface.

For more details, refer to "Upgrading the Tracks of Melbourne's Street Tramways" (*unabridged version is 61 pages + figures*) by yours truly and presented (*in abridged form*) to the 3rd International Rail Sleeper Conference, held at Brisbane in Sept 1979.

Looks like an interesting track structure....particularly how the upper section (around e-clips and above) was created.

So, if you could spare the time, I would really appreciate seeing some more of your fine photo's, Chris.

Many thanks, and best regards,
Bob V.

From: Chris.Tasker@ghd.com [mailto:Chris.Tasker@ghd.com]
Sent: Wednesday, 27 April 2011 11:57 AM
To: tramwad@alphalink.com.au; bobvrail@bigpond.com.au
Cc: tasmont@bigpond.net.au
Subject: Spencer St Tram Renewals

Hi Warren and Bob,

A big weekend of Tram Works over the Easter Break. GHD had done all the design for the renewals in Spencer St, which were constructed by Coleman Rail and Fulton Hogan.

Found a couple of interesting things - see photos of old timber sleepers. Looks like they had the top corners chamfered off - was this common practice?

We've got quite a lot of photos from the weekend, if you're interested I can burn some to disc for you.

Regards

Chris Tasker
Track & Civil Engineer - Rail

GHD

T: 61 3 8687 8531 | M: 61 430 717 363 | V: 318 531 | chris.tasker@ghd.com
Level 8, 180 Lonsdale Street Melbourne VIC 3000 Australia | <http://www.ghd.com/>

[Water](#) | [Energy & Resources](#) | [Environment](#) | [Property & Buildings](#) | [Transportation](#)

Please consider the environment before printing this email

This email and all attachments are confidential. For further important information about emails sent to or from GHD or if you have received this email in error, please refer to <http://www.ghd.com/emaildisclaimer.html>.

This e-mail has been scanned for viruses by MessageLabs.
