Submission No 6

INQUIRY INTO SYDENHAM-BANKSTOWN LINE CONVERSION

Name: Name suppressed

Date Received: 17 September 2019

This submission is in regard to the proposed conversion of the Bankstown rail line to "metro" operation.

The Sydenham to Bankstown rail line is a fully integrated part of the current Sydney rail network. Its excision from the network and conversion to isolated "metro" operation will be hugely disruptive to commuter services both during construction and subsequently.

The proposed conversion will result in the loss of direct CBD services for residents west of Bankstown. This will cause longer commute times. As a result it will hamper longer term commercial and residential development west of Bankstown.

The proposed conversion will mean the loss of current frequent peak hour express services to/from the CBD resulting in longer commute times. This is because "metro" operation does not and cannot support express services, all trains will stop at all stations.

The proposed conversion of the Bankstown line will incur significant costs and service disruptions but will not provide any tangible benefit to commuters.

It is not understood by the government in their promotion of "metro" style train systems that the current Chatswood to Tallawong rail line does not operate as a true "metro" operation and that this will impose significant constraints on its future service capacity which will also be significant constraints for the future operation of the Bankstown line as part of the "metro" system. The line as designed effectively has a significant bottleneck to its service capacity which relates to its maximum service speed. As a general design principle metro rail systems are designed with low maximum speed, typically 60km/h, as this lower speed of operation enables high service capacity. As operating speed is raised journey time reduces but also service capacity reduces significantly. This inverse relationship between speed and capacity is true for all rail systems and also for motorways.

With a maximum operating speed of 100km/h the Chatswood to Tallawong line is not true "metro" operation as it has a significantly limited service capacity compared to typical metro systems around the world.

Parts of the existing Sydney rail network currently achieve as high as 22 trains per hour scheduled throughput. Metro systems overseas can achieve up to around 30 trains per hour. But the government figures continually state that the service will be 4 minutes between trains, equating to only 15 trains per hour. If the trains are to be 6 car single deck compared to existing 8 car double deck then clearly the capacity will certainly not increase, the planning isn't making sense.

Upgrading of the existing Bankstown line infrastructure could deliver a higher level of service than current service capacity at a fraction of the cost of conversion to "metro".

The extension of the North West metro line through the city and the conversion of the Bankstown line to "metro" operation will impose this capacity constraint on all of this line. This service constraint has not been recognised by the government in their planning for the Bankstown line.

For the above reasons it is evident that any benefit to commuters now or into the future in the proposed conversion of the Bankstown line will be more than offset by the significant service

disruptions and operational constraints. The costs for conversion will far outweigh the benefits. In conclusion the proposal is ill-conceived, unnecessary and a waste of taxpayer money.

The above comments are based on more than four decades of my work experience in rail systems engineering in Australia and internationally including for metro style rail networks. I believe these comments would be supported by any person having a working knowledge of rail systems design.