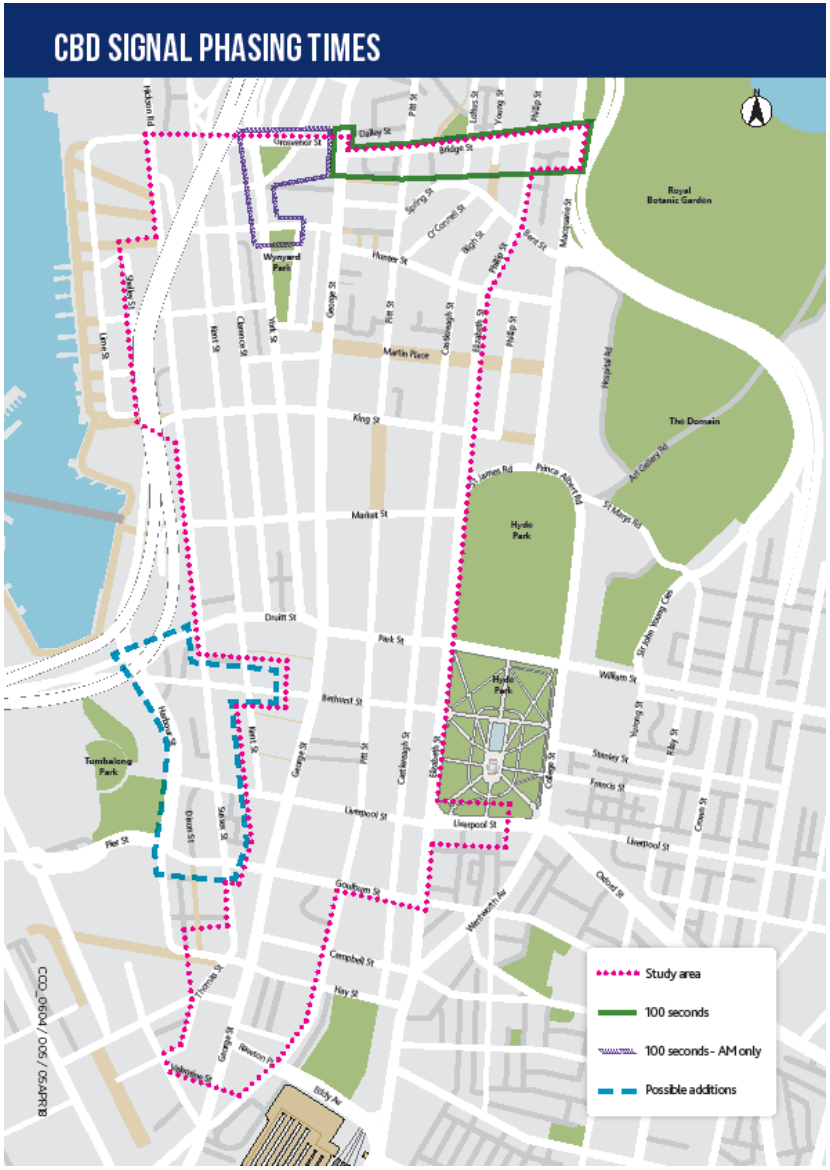
Planning – Reduce Pedestrian waiting times (90 sec trial)

- 90 second cycle times to reduce pedestrian delays in the CBD commenced on 7th Jan 2018. It was monitored for a three month period by RMS with Sydney Coordination Office (SCO) assistance
- Buses continue to operate normally
- The project has been a success, with all signals continuing to operate at 90 seconds with the exception of Bridge Street, as shown in green and in the AM peak on York Street at Grosvenor, Jamison/Lang and Margaret Streets and Margaret Street at Carrington Street shown in purple. These are now operating at a 100 second cycle time.
- These locations will be assessed to seek opportunities to revise back to 90 seconds over the next 6 months



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Week	AM peak	PM peak
One (8-12 Jan) Note: Major rail incidents for Monday afternoon and Tuesday	• Queues observed on Sydney Harbour Bridge from York Street this is abnormal for this time of year. Changes were made to signal splits to reduce queuing on the Sydney Harbour Bridge • Sydney Buses advised that buses were running approx 15 minutes early which could be impacting the queue on the Bridge	• Congestion at the intersection of Kent and Druitt Sts (this is an existing concern due to the left turn/pedestrian crossing conflict). This congestion resulted in queueing observed on the off ramp up to the bend on the Western Distributor. Changes were made to signals to reduce queuing along Kent and Bathurst St
Two (15-19 Jan)	• The current works on the removal of the toll booths are causing queues on the Bridge from York • Western Distributor off ramp is heavier than last week • On the Thursday there was a broken down Coach in the Eastern Distributor that caused major network disruptions including queues from the SHB reaching the northern pylon	• Changes to the Kent and Druitt Sts signals have worked and much less queuing • William Street heavy traffic • Park and Druitt Sts usual congestion
Three (22-26 Jan) Note: Rail overtime strike on afternoon of Thursday	• Changes to the merge on the Sydney Harbour Bridge were made over the weekend to improve operations • Both the Sydney Harbour Bridge and Western Distributor off ramps were heavier traffic than last week • Buses the heaviest observed with a queue back to the Northern pylon for 5 minutes • Heavier left turn from York St into Grosvenor St	• William Street heavier traffic • Anzac Bridge heavier traffic than last week • Park Street usual congestion

- Roads and Maritime Services (RMS) Network Operations (Net Ops) have implemented 90 second cycle lengths in the CBD on Sunday 7th January 2018 at 7am.
- It is being monitored by Net Ops with Sydney Coordination Office (SCO) assistance.

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Week	AM peak	PM peak
Four (29 Jan - 2 Feb)	• Congestion at the intersection of Grosvenor and Bridge Sts. This congestion resulted in queueing observed in Lang, York and Grosvenor Sts. Signal timing was changed at Bridge from George Street to Macquarie Streets to 100 sec to reduce queuing along Grosvenor, Lang and York Sts	• Congestion at the intersection of Grosvenor and Bridge Sts. This congestion resulted in queueing observed in Bridge, and Grosvenor Sts. Signal timing was changed at Bridge from George Street to Macquarie Streets to 100 sec to reduce queuing along Grosvenor, Lang and York Sts
Five (5-9 Feb)	• The 100 sec cycle time at Grosvenor and Bridge Street has resolved the issues • The current works on the removal of the toll booths are causing queues on the Bridge from York	• William Street heavy traffic
Six (12-16 Feb)	• The current works on the removal of the toll booths are causing queues on the Bridge from York	• Bathurst St heavy traffic • William Street heavy traffic
Seven (19-23 Feb)	• The current works on the removal of the toll booths are causing queues on the Bridge from York	• Bathurst St has experienced heavy congestion this week with queues back to the Woolstores • William Street heavy traffic

King-Pitt Streets: The week of 5-9 Feb it was noted that heavy traffic congestion was occurring at Pitt Street on its approach to King Street. Following a review a fault was identified with the system and the sequencing of the traffic lights in this vicinity was altered. This resolved the issues identified on Pitt Street at this location.

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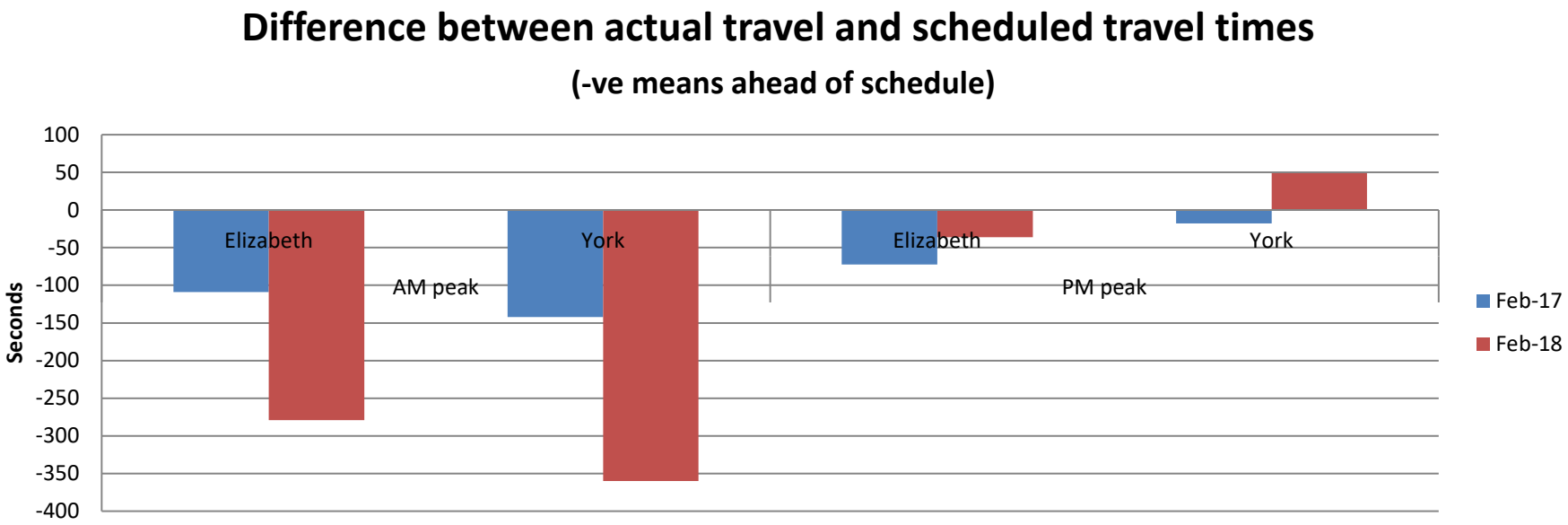
Week	AM peak	PM peak
Eight (26 Feb – 2 Mar)	• Network worked well	• Network worked well
Nine (5-9 Mar)	• Harbour Bridge changes caused all cycle times in the northern part of the CBD to be increased to 100 seconds in the AM peak. Apart from some congestion on York and Grosvenor Sts due to the bridge changes and unfamiliar arrangements, the rest of the network worked well • AM peak is now set for 100 seconds for Grosvenor, Jamison and Margaret Streets at York St and Grosvenor at Lang Street and Margaret Street and Carrington Street	• Network generally worked well
Ten (12-16 Mar)	• Network worked well	• Network worked well
Eleven (19-23 Mar)	• Network worked well	• Network worked well

Analysis



Comparison of data for bus travel times on Elizabeth and York/Clarence Streets in the AM and PM peak one hour. In general travel times for buses on Elizabeth Street and York/Clarence in the AM peak are arriving earlier than scheduled compared to last year. And Elizabeth Street PM has an improved running time while York/Clarence has gone from running 18 secs ahead of schedule to 49 secs behind schedule.

			Route 1 WB	Route 1 EB	Route 2 WB	Route 2 EB	Route 3 WB	Route 3 EB	Route 4 NB	Route 4 SB	Route 5 NB	Route 5 SB	Route 6 NB	Route 6 SB	Route 7 NB	Route 7 SB
			Park/Druitt Street		King Street		Market Street		George Street		Pitt Street		Elizabeth Street		York Street	
Combined	Before 90 sec	Avg travel time	12:22	13:45	12:51	12:23	11:18	11:02	32:29	31:45	32:13	35:44	35:23	35:19	14:30	14:11
		Avg dwell time	00:31	00:32	00:42	00:38	00:29	00:28	00:20	00:15	00:18	00:30	00:47	00:28	00:28	00:28
	After 90 sec	Avg travel time	12:10	13:15	11:03	11:21	10:36	10:30	29:38	30:31	30:17	32:22	34:43	34:44	14:13	13:54
		Avg dwell time	00:21	00:24	00:21	00:24	00:25	00:25	00:15	00:12	00:12	00:27	00:43	00:26	00:23	00:19
	% reduction on avg dwell time		31%	25%	50%	38%	14%	11%	25%	18%	30%	11%	9%	8%	19%	31%

Above is a comparison from prior and during the evaluation. As you can see from the data the average dwell time at signals for pedestrians has reduced for all intersections. Some less than others I have also included & change in dwell times for your information