



The Times

January 2016

A journal of transport timetable history and analysis



Inside: By skateboard to Busselton
Where are the WWW WTTs?

RRP \$4.95
Incl. GST

The Times

A journal of the Australian Timetable Association Inc. (A0043673H)

Print Publication No: 349069/00070, ISSN 0813-6327

January 2016

Vol 33 No. 01, Issue No. 384

The Times welcomes all contributions. Our Authors' Guide is available on our web-site at <http://www.austta.org.au>
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**INTERCITY
TRAIN
ROSTERS**
 BOOK 1 - MONDAYS TO FRIDAYS
 FROM MONDAY 17TH JANUARY 2011
 2010 SWTT VERSION 3.03
PRODUCED BY OPERATING TIMETABLE & SPECIAL EVENTS
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northern

Northern Section Pages

Manager, Operator and Maintainer
of the
New South Wales Country Rail Network

John Holland Rail



How Busso Bussed its Skateboarders

Thanks to **DAVID WHITEFORD** for alerting *The Times* to this timetable

BUSSELTON IS A REGIONAL CITY in the South West region of Western Australia, 220 kilometres (140 mi) south west of Perth. Founded in 1832 by the Bussell family, Busselton has been one of the fastest growing regions in Australia in the last decade and has a population of approximately 20,000. Busselton was voted Western Australia's top tourist town in 1995, 1996 and 2005

Transport to an in Busselton operates under the aegis of Transwa, WA's regional public transport provider, linking 275 destinations in the state Transwa is part of the Public Transport Authority and was launched on 28 May 2003 replacing the Western Australian Government Railways Commission (WAGR).

The Western Australia Public Transport Authority (PTA) is responsible for rail, bus and ferry services in the metropolitan area (Transperth); public transport ser-

vices in regional centres; Coach and rail passenger services to regional areas (Transwa); School bus services and; designing, building and maintaining transport infrastructure. These services previously operated under the Department of Planning and Infrastructure (FPI) and WAGR.

The PTA was created to clarify the function of the DPI as a land-and-transport planning authority, while consolidating the responsibility for delivery of public transport. The PTA's vision is "to increase the use of public transport through the provision of customer-focussed, safe and cost-effective passenger transport services.". Major entities within the PTA include:

- Transperth
- Transwa
- School Bus Services
- Regional Town (Bus) Services (described hereunder)

Within Transwa, the small Regional Town Bus Services team manages contracted intra-town and inter-town bus services operating in regional centres around the State. These operation include

- Geraldton
- Karratha
- Carnarvon
- Port Hedland
- Marble Bar
- Nullagine
- Newman
- Broome
- Kununurra
- Laverton
- Kalgoorlie
- Esperance
- Narrogin
- Collie
- Manjimup
- Albany
- Bunbury
- Busselton



Where it's all happening ...

Meelup Beach Party
WEDNESDAY 27th NOVEMBER
Aqua Playground • Snorkelling
DJ • Beach Volleyball • BBQ
LEAVERS ONLY WITH A WRISTBAND BUS ACCESS ONLY

Liens Park Activities
10am - 4pm, 24th - 27th NOVEMBER
Sports • Volleyball • Chill-Out
Activity tents & PITSTOP on Friday

Route	Days	From	To	Frequency
ROUTE 1	MONDAY TO FRIDAY	BUSSELTON TO YALLINGUP BEACH	SWEL Office, Beachlands, Broadwater, Four Seasons, Dunsborough Lakes, Dunsborough Visitor Centre, Levee Centre Park, Yallingup Beach, Broom (arrives before the game ends)	EVERY 15 MIN 7:00am - 10:00pm
ROUTE 2	MONDAY TO THURSDAY	DUNSBOROUGH VISITOR CENTRE TO THE ZONE	DIRECT	EVERY 5 MIN 6:45am - 9:00am
ROUTE 3	MONDAY TO THURSDAY	DUNSBOROUGH LAKES TO THE ZONE	DIRECT	EVERY 15 MIN 7:30am - 1:00pm
ROUTE 4	MONDAY TO THURSDAY	THE ZONE TO DUNSBOROUGH LAKES	DIRECT	EVERY 5 MIN 6:45am - 9:00am
ROUTE 5	MONDAY TO THURSDAY	THE ZONE TO BROADWATER	SWEL, Beachlands	EVERY 15 MIN 6:45am - 9:00am
ROUTE 6	MONDAY TO THURSDAY	BROADWATER TO THE ZONE	Broadwater, Aqua Resort	EVERY 15 MIN 6:45am - 9:00am
ROUTE 7	MONDAY TO THURSDAY	THE ZONE TO CAVES CARAVAN PARK, YALLINGUP	DIRECT	EVERY 15 MIN 7:30am - 1:00pm
ROUTE 8	WEDNESDAY "MEELUP BEACH DAY"	DUNSBOROUGH LAKES TO MEELUP BEACH	Meelup Beach to Dunsborough Lakes	EVERY 15 MIN 10:00am - 11:30am

Bus Stop Accommodation Guide

Location	Closest for:
YALLINGUP	CAVES CARAVAN PARK, YALLINGUP BEACH
DUNSBOROUGH	COMMONAGE ROAD (Closest for: Dunsborough Lakes Caravan Park, Railway Carriages)
THE ZONE	
BROADWATER	Four Seasons Caravan Park
BEACHLANDS	Beachlands Holiday Park, Amell's Resort
BUSSELTON	SOUTH WEST COACH LINES (Closest for: Amaroos Motel, Busselton Holiday Village, Blue Bay Apartments, Jacaranda Guest House, Paradise Motor Inn, Rastowhite Motel (for hire), Busselton Beach resort (for arranged times))

Route 816 - To Broadwater

Timed Stops	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Stop No.	70485	70637	70633	70635	70643	70564	70527	70513	70511
Route No.	Albert St (Albert Square)	Senior Citizens Centre	Kent St / IGA	Kent St / Figtree Lane	Strelly St / Fairlawn Rd	Geographe Leisure Centre	Bignell Dr / Wylie Cr	Falcon Dr / Broadwater Blvd	Masonic Village

Monday to Friday									
am 816 S	7:40	7:42	7:44	7:46	7:51	7:58	8:03	8:08	8:10
816 H	7:40	7:42	7:44	7:46	7:51	7:58	8:03	8:08	8:12
816	10:05	10:07	10:09	10:11	10:16	10:23	10:26	10:30	10:34
pm 816	1:05	1:07	1:09	1:11	1:16	1:23	1:26	1:30	1:34
816	2:35	2:37	2:39	2:41	2:46	2:53	2:56	3:00	3:05
816	4:35	4:37	4:39	4:41	4:46	4:53	4:56	5:00	5:05

Saturday and Public Holidays - NOTE: Does not operate on Good Friday and Christmas Day.									
am 816	10:05	10:07	10:09	10:11	10:16	10:23	10:26	10:30	10:34
pm 816	1:05	1:07	1:09	1:11	1:16	1:23	1:26	1:30	1:34
816	5:05	5:07	5:09	5:11	5:16	5:23	5:26	5:30	5:35

No Sunday service

LEGEND

816 H Operates on school holidays only.
 816 S Operates on school days only and extends to Vasse Primary School and Cape Naturaliste College.

Route 816 - To Busselton

Timed Stops	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Stop No.	70511	70514	70528	70564	70642	70637	70633	70635	70485
Route No.	Masonic Village	Falcon Dr / Broadwater Blvd	Bignell Dr / Wylie Cr	Geographe Leisure Centre	Strelly St / Fairlawn Rd	Senior Citizens Centre	Kent St / IGA	Kent St / Figtree Lane	Albert St (Albert Square)

Monday to Friday									
am 816	8:36	8:38	8:43	8:48	8:55	8:58	9:00	9:02	9:07
816	10:36	10:38	10:43	10:48	10:55	10:58	11:00	11:02	11:07
pm 816	1:36	1:38	1:43	1:48	1:55	1:58	2:00	2:02	2:07
816 S	3:36	3:38	3:43	3:48	3:55	3:58	4:00	4:02	4:05
816	3:58	4:00	4:03	4:08	4:15	4:18	4:20	4:22	4:26
816	5:08	5:10	5:13	5:18	5:25	5:28	5:30	5:32	5:36

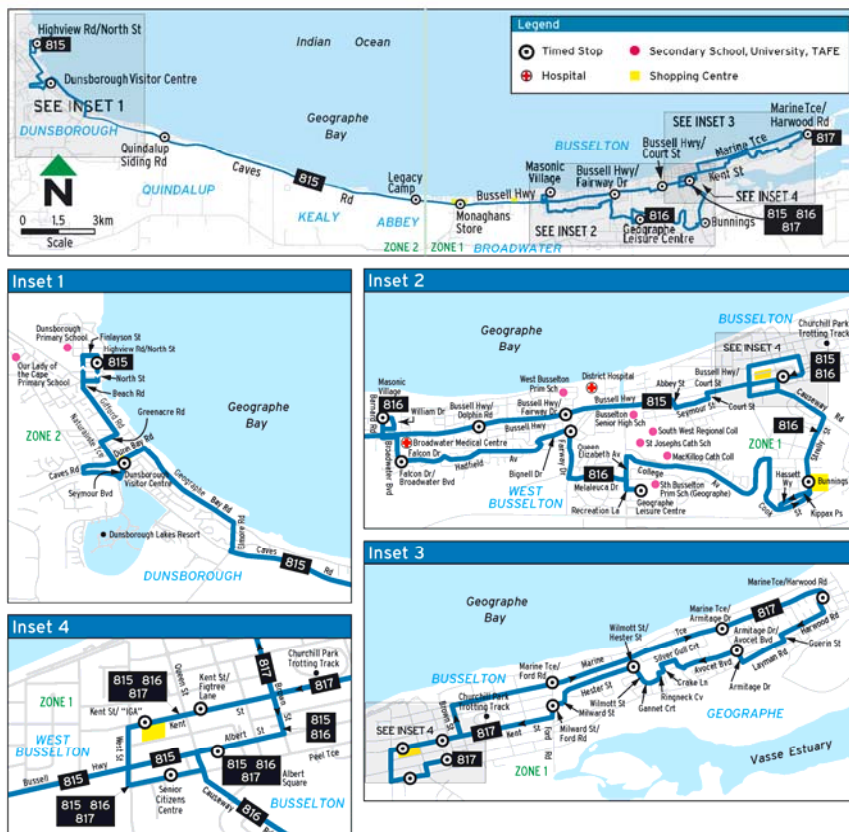
Saturday and Public Holidays - NOTE: Does not operate on Good Friday and Christmas Day.									
am 816	10:38	10:40	10:43	10:48	10:55	10:58	11:00	11:02	11:06
pm 816	1:38	1:40	1:43	1:48	1:55	1:58	2:00	2:02	2:06
816	3:58	4:00	4:03	4:08	4:15	4:18	4:20	4:22	4:26
816	5:38	5:40	5:43	5:48	5:55	5:58	6:00	6:02	6:06

No Sunday service

LEGEND

816 S Departs from Cape Naturaliste College prior to time shown, on school days only.

Route 815, 816, 817 Map



- Dunsborough

The Busselton system (TransBusselton) is run by Swan Transit which commenced operating services in the Midland area on 21 January 1996, with 43 buses. Swan expanded as follows:

- Canning Vale and Southern River September 1996
- Armadale South and Kalamunda areas January 1998
- Cockburn, Fremantle and the Perth CAT services July 1998.
- Perth operations of Connex September 2002
- Marmion services May 2011
- Bunbury and Busselton January 2015

Busselton transport

Western Australia's first railway line was built just north of Busselton at Lockville in 1871. This private line was used for the transport of timber to the Wonnerup jetty across the Ballarat bridge. The original engine, known as the Ballarat engine, is on display near the tourist bureau. From about 1927 to 1957, Busselton was also on the WAGR railway line running from Bunbury to Flinders Bay. The railway line also connected onto the Busselton Jetty and was not closed on the jetty until the 1970s;

Timed Stops	70485	70637	70633	70635	70632	70490	70492	70949	70615	70607	70592	70503
Stop No.	70485	70637	70633	70635	70632	70490	70492	70949	70615	70607	70592	70503
Route No.	Albert St (Albert Square)	Senior Citizens Centre	Kent St / IGA	Kent St / Figtree Lane	Court St / Bussell Hwy	Bussell Hwy / Fairway Dr	Bussell Hwy / Dolphin Rd	Bussell Hwy / Cambridge Bvd	Legacy Campsite	Dunsborough Quindalup Siding Rd	Dunsborough Visitor Centre	North St / High View Rd

Monday to Friday

am 815 H	7:15	7:16	7:18	7:20	7:25	7:30	7:31	7:35	7:38	7:45	7:52	8:01
815 S	7:15	7:16	7:18	7:20	7:25	7:30	7:31	7:35	7:38	7:45	8:00	8:31
815 E	11:15	11:16	11:18	11:20	11:25	11:30	11:31	11:35	11:37	11:44	11:51	12:05
pm 815 M	1:15	1:16	1:18	1:20	1:25	1:32	1:33	1:37	1:41	1:48	1:55	2:04
815 C	1:45	1:46	1:48	1:50	1:55	2:00	2:01	2:05	2:07	2:14	2:21	2:30
815 B	2:15	2:16	2:18	2:20	2:25	2:30	2:31	2:35	2:37	2:44	2:51	3:03
815	4:35	4:36	4:38	4:40	4:45	4:50	4:51	4:55	4:57	5:04	5:11	5:25

Saturday and Public Holidays - NOTE: Does not operate on Good Friday and Christmas Day.

am 815	7:15	7:16	7:18	7:20	7:25	7:30	7:31	7:35	7:37	7:44	7:51	8:02
815 E	11:15	11:16	11:18	11:20	11:25	11:30	11:31	11:35	11:37	11:44	11:51	12:02
pm 815 M	1:15	1:16	1:18	1:20	1:25	1:32	1:33	1:37	1:39	1:46	1:53	2:04
815 B	2:45	2:46	2:48	2:50	2:55	3:00	3:01	3:05	3:07	3:14	3:21	3:32
815	4:35	4:36	4:38	4:40	4:45	4:50	4:51	4:55	4:57	5:04	5:11	5:22

No Sunday service

LEGEND

- 815 B Deviates via Bird Cr.
- 815 C Operates on school days only.
- 815 E Deviates via Moore St and Bird Cr
- 815 H Operates on school holidays only.
- 815 M Deviates via Carter St, Moore St and Alpha Rd.
- 815 S Operates on school days only and deviates via Windlemere, Dunsborough Lakes, Quindalup Beach, Our Lady of the Cape Primary School and Dunsborough Primary School.

Route 815 - To Busselton

Timed Stops	70503	70501	70608	70616	70510	70530	70532	70533	70633	70635	70637	70644
Stop No.	70503	70501	70608	70616	70510	70530	70532	70533	70633	70635	70637	70644
Route No.	North St / High View Rd	Dunsborough Visitor Centre	Dunsborough Quindalup Siding Rd	Legacy Campsite	Caves Rd / Roberts Rd	Bussell Hwy / Dolphin Rd	Bussell Hwy / Fairway Dr	Bussell Hwy / Abbey St	Kent St / IGA	Kent St / Figtree	Senior Citizens Centre	Albert St / Queen St

Monday to Friday

am 815 M	8:37	8:45	8:53	9:00	9:01	9:07	9:08	9:12	9:17	9:18	9:21	9:28
pm 815 M	12:07	12:15	12:22	12:28	12:29	12:34	12:35	12:39	12:44	12:45	12:47	12:54
815	2:07	2:15	2:22	2:28	2:29	2:34	2:35	2:37	2:42	2:43	2:45	2:52
815 S	3:05	3:25	3:32	3:38	3:39	3:44	3:45	3:47	3:52	3:53	3:56	4:03
815 D	3:20	3:45	4:02	4:08	4:09	4:14	4:15	4:17	4:22	4:23	4:26	4:33
815 H	3:47	3:55	4:02	4:08	4:09	4:14	4:15	4:17	4:22	4:23	4:26	4:33
815	5:27	5:35	5:42	5:48	5:49	5:54	5:55	5:57	6:02	6:03	6:06	6:13

Saturday and Public Holidays - NOTE: Does not operate on Good Friday and Christmas Day.

am 815 M	8:07	8:15	8:22	8:28	8:29	8:34	8:35	8:39	8:44	8:45	8:47	8:54
pm 815 M	12:07	12:15	12:22	12:28	12:29	12:34	12:35	12:39	12:44	12:45	12:47	12:54
815	2:07	2:15	2:22	2:28	2:29	2:34	2:35	2:37	2:42	2:43	2:45	2:52
815	3:37	3:45	3:52	3:58	3:59	4:04	4:05	4:07	4:12	4:13	4:15	4:22
815	5:27	5:35	5:42	5:48	5:49	5:54	5:55	5:57	6:02	6:03	6:05	6:12

No Sunday service

LEGEND

- 815 H Operates on school holidays only.
- 815 M Deviates via Alpha Rd, Moore St and Carter St.
- 815 D Operates on school days only and deviates via Windlemere, Dunsborough Lakes, Quindalup Beach, Our Lady of the Cape Primary School and Dunsborough Primary School.
- 815 S Operates on school days only and deviates via Dunsborough Primary School.

Route 817 Circular - Busselton - Geographe - Busselton

Timed Stops	70485	70637	70633	70635	70539	70544	70579	70582	70587	70540	70635	70633	70637	70485
Stop No.	70485	70637	70633	70635	70539	70544	70579	70582	70587	70540	70635	70633	70637	70485
Route No.	Albert St (Albert Square)	Senior Citizens Centre	Kent St / IGA	Kent St / Figtree Lane	Marine Tce / Carey St	Marine Tce / Armitage Dr	Marine Tce / Harwood Rd	Armitage Dr / Avocet Bvd	Wilmott St / Hester St	Ford Rd / Duke St	Kent St / Figtree Lane	Kent St / IGA	Senior Citizens Centre	Albert St (Albert Square)

Monday to Friday

am 817	9:30	9:32	9:33	9:35	9:37	9:41	9:43	9:45	9:49	9:51	9:52	9:53	9:55	10:00
pm 817	12:30	12:32	12:33	12:35	12:37	12:41	12:43	12:45	12:49	12:51	12:52	12:53	12:55	1:00
817	4:35	4:37	4:38	4:40	4:42	4:46	4:48	4:50	4:54	4:56	4:57	4:58	5:00	5:05

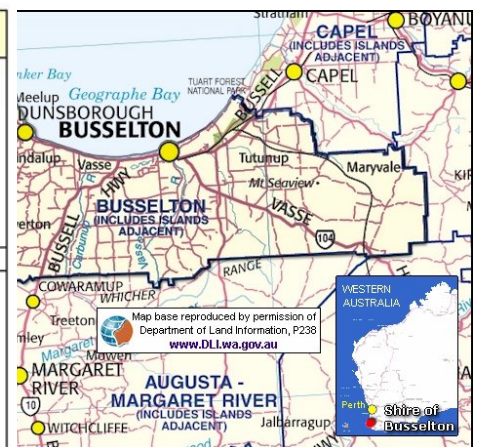
Saturday and Public Holidays - NOTE: Does not operate on Good Friday and Christmas Day.

am 817	9:30	9:32	9:33	9:35	9:37	9:41	9:43	9:45	9:49	9:51	9:52	9:53	9:55	10:00
pm 817	12:30	12:32	12:33	12:35	12:37	12:41	12:43	12:45	12:49	12:51	12:52	12:53	12:55	1:00
817	4:30	4:32	4:33	4:35	4:37	4:41	4:43	4:45	4:49	4:51	4:52	4:53	4:55	5:00

No Sunday service

Sunday 27th September- Dunsborough	Monday 28th September- Boyanup	Tuesday 29th September – Cowaramup	Wednesday 30th September- Capel
10:00am Depart Busso 10:30am Arrive Duns Skate Park 12pm Depart Duns Skate Park 2:30pm Arrive Busso 1:00pm Depart Busso 1:30am Arrive Duns Skate Park 3:00pm Depart Duns Skate Park 3:30pm Arrive Busso	10:00am Depart Busso 10:40am Arrive Boyanup Skate Park 2:50pm Depart Boyanup Skate Park 3:30pm Arrive Busso	10:00am Depart Busso 10:30am Arrive Cowaramup Skate Park 12pm Depart Cowaramup Skate Park 12:30pm Arrive Busso 1:00pm Depart Busso 1:30pm Arrive Cowaramup Skate Park 3:00pm Depart Skate Park 3:30pm Arrive Busso	10:00am Depart Busso 10:30am Arrive Capel Skate Park 12pm Depart Capel Skate Park 12:30pm Arrive Busso 1:00pm Depart Busso 1:30am Arrive Capel Skate Park 3:00pm Depart Capel Skate Park 3:30pm Arrive Busso
Sunday 4th October – Capel	Monday 5th October – Dunsborough	Tuesday 6th October – Boyanup	Wednesday 7th October – Cowaramup
10:00am Depart Busso 10:30am Arrive Capel Skate Park 12pm Depart Capel Skate Park 12:30pm Arrive Busso 1:00pm Depart Busso 1:30am Arrive Capel Skate Park 3:00pm Depart Capel Skate Park 3:30pm Arrive Busso	10:00am Depart Busso 10:30am Arrive Duns Skate Park 12pm Depart Duns Skate Park 12:30pm Arrive Busso 1:00pm Depart Busso 1:30am Arrive Duns Skate Park 3:00pm Depart Duns Skate Park 3:30pm Arrive Busso	10:00am Depart Busso 10:40am Arrive Boyanup Skate Park 2:50pm Depart Boyanup Skate Park 3:30pm Arrive Busso	10:00am Depart Busso 10:30am Arrive Cowaramup Skate Park 12pm Depart Cowaramup Skate Park 12:30pm Arrive Busso 1:00pm Depart Busso 1:30pm Arrive Cowaramup Skate Park 3:00pm Depart Skate Park 3:30pm Arrive Busso

Thursday 1st October- Dunsborough	Friday 2nd October Boyanup	Saturday 3rd October Cowaramup
10:00am Depart Busso 10:30am Arrive Duns Skate Park 12pm Depart Duns Skate Park 12:30pm Arrive Busso 1:00pm Depart Busso 1:30am Arrive Duns Skate Park 3:00pm Depart Duns Skate Park 3:30pm Arrive Busso	10:00am Depart Busso 10:40am Arrive Boyanup Skate Park 2:50pm Depart Boyanup Skate Park 3:30pm Arrive Busso	10:00am Depart Busso 10:30am Arrive Cowaramup Skate Park 12pm Depart Cowaramup Skate Park 12:30pm Arrive Busso 1:00pm Depart Busso 1:30pm Arrive Cowaramup Skate Park 3:00pm Depart Skate Park 3:30pm Arrive Busso
Thursday 8th October- Capel	Friday 9th October – Dunsborough	Saturday 10th October – Boyanup
10:00am Depart Busso 10:30am Arrive Capel Skate Park 12pm Depart Capel Skate Park 12:30pm Arrive Busso 1:00pm Depart Busso 1:30am Arrive Capel Skate Park 3:00pm Depart Capel Skate Park 3:30pm Arrive Busso	10:00am Depart Busso 10:30am Arrive Duns Skate Park 12pm Depart Duns Skate Park 12:30pm Arrive Busso 1:00pm Depart Busso 1:30am Arrive Duns Skate Park 3:00pm Depart Duns Skate Park 3:30pm Arrive Busso	10:00am Depart Busso 10:40am Arrive Boyanup Skate Park 2:50pm Depart Boyanup Skate Park 3:30pm Arrive Busso



the connection with Bunbury was closed in the late 1980s.

South West Coach Lines, now provide coach services for connections to other south west towns and Perth (map on page 3).

Virgin Australia Regional Airlines (formerly Skywest) provide a weekend service to Busselton from Perth with flights being 45 minutes in duration. There are three return flights a week using Fokker 50 aircraft.

TransBusselton

Swan Transit has a 10 year contract to operate the service in Busselton under the TransBusselton brand. Route maps for the three routes and timetables for them are shown on pages 4 to 5. There are 7&6 weekday return services on each of the 815 and 816 “linear” routes and 3 daily services on the “circular” route 817.

It is hard to say why skateboarding looms so large in and around Busselton that it requires that special free bus services be provided to venues in adjacent towns when one of the skateboard parks closes temporarily for renovation—but it does. Nearby towns with skate- parks are:

Dunsborough	4005	24.0	30
Capel	2151	26.5	30
Boyanup	1264	44.7	40
Cowaramup	1131	37.7	30

Now I have no wish to do a Bill Bryson and deprecate these fine towns, with their fine people, but the appearance of the following notice on the City of Busselton web site in September 2015 could probably stand some further explanation:

The old Busselton Skate Park will be demolished on Monday 21 September to progress the Busselton Foreshore Upgrade. While construction of the Busselton Youth Precinct, which features a brand new 2000m skate park is on track, there will be a short period of time when Busselton-based kids won't have access to a local skating facility.

During the October school holidays, the Council has arranged for a free daily bus service to transport skaters to skate parks in neighbouring districts. Pick-up and Drop-off for this service is Marine Terrace (opposite the Esplanade Hotel). This is a great opportunity to test out different jumps and bowls and meet some new friends. The bus will run according to the timetable [above]. While there is no need to make a reservation on the bus, seats are limited and are available on a first-in

-first-served basis. If patronage is not strong, the bus service may be cancelled.

It is not clear who brought pressure to bear to provide this service, nor who provided the buses or paid for the service nor whether patronage was “strong”. It seems to have been a very optimistic ambit.

School holidays must be frightfully dull in Busselton for even an addicted rider to consider travelling for 60 to 80 minutes for a mere 90 minutes of skate-boarding in a small town far up or down the coast.

However, skatespots.com.au has this to say about the (2000metre!) Busselton Skate Park:

“Probably the best park in WA. It's located on the shorefront of Busselton and has basically everything you could ask for.

It may well be that such an awesome venue produces such severe withdrawal symptoms when boarders are forced to go cold turkey, that they will do anything for a “fix”. How should we know? I suspect that most readers of The Times have been bypassed by the skate-board industry. If , however, you are a *rad* or a *ripper* and **do** know what “everything you could ask for” means, please let ATA know.

Town	Pop	Dist	Time
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Working Timetables and Railway Infrastructure Information on the World Wide Web

Why are the Working Timetables of some Australian railway infrastructure authorities on the world wide web, but the Working Timetables of others are not? - VICTOR ISAACS

THE OPERATING TIMETABLE used by railway staff in Australia is traditionally called a Working Timetable. Recently, terms such as Master Train Plan, or Master Train Timetable or Network Service Plan have also come into use. To avoid chopping and changing, I will stick with the term Working Timetable, or WTT.

Introduction

WTTs have always been highly prized by students of railway operating practices. This is because they provide vastly more information than is available in Public Timetables. This includes times of trains at non-stopping locations, the “real” times of trains, as opposed to sometimes “fictional” times in Public TTs, details of train compositions, copious details of operating procedures, and details of railway infrastructure [almost nobody does this any more and WTTs are now pretty boring. Such material is now found exclusively in supplementary documents such as “Sectional” or “Local” Appendices, WTT Addenda, Train Operation Conditions manuals and a host of other documentation, described in “Railway Paper” in “The Times” [in 20xx]. If WTTs are available on the web, then these documents usually are as well—true for NSWRC, ARTC, V/Line, Network Rail, John Holland—to name 5.]

However, until a few years ago, WTTs were very hard to obtain in any form. Once upon a time, (except this is not a fairy tale), WTTs, General Appendices and Local Appendices were prominently labelled with terms such as “Confidential”, “Private”, “Not to be Issued to the Public”, “For Staff Use Only” and so on. This aura of secrecy actually added to the allure of obtaining these WTTs and background infrastructure information. Occasionally, in the past, paper WTTs have been made available through retailers (e.g. in Victoria).

In more recent times, some Australian WTTs have been, in fact, publicly available documents placed on the web for anyone to peruse and/or download. This, however, only applies to the Australian Rail Track Corporation (ARTC), John Holland Rail NSW Country Regional Network (JHR CRN) and V/Line. WTTs of other

infrastructure owners remain in the “Not to be Issued to be Public” category [some that ARE available retain this endorsement nevertheless (e.g. Network Rail)—go figure]. Some others were on the web for a while, but have now been removed. What explains this large? variation in practices?

May I suggest:

Whether such material is available on an Open Access web-site is determined by a number of factors. Where WTTs are available, it will generally be the case that policy and legislation (the Access Regime) requires this be so. This is particularly so for “vertically-disaggregated” railways, where the track owner builds the timetables for competing operators, who then bid for “paths” in the timetable. Such paths are, in a sense, the “shop windows” of the track owner and need to be available for all potential buyers (including you or I) to peruse. WTTs made available because of legislation or Access Regimes are usually accompanied by a full range of the supporting information formerly available on the old-fashioned paper WTT.

In places where WTTs are NOT available, the reason is often that the system is not Open Access in theory (e.g. Brookfield Rail in Western Australia) or in practice (e.g. QRN in Queensland). In other instances failure to make WTTs available seems to be a consequence of a lingering “dog-in-the-manger” attitude, “commercial in confidence” reasons or security concerns.

In Great Britain WTTs were available only through the exercise of Freedom of Information rights. This became so burdensome for London Underground and Network Rail that these organisations took the easier course of formalising their automatic availability.

It is sometimes the case that WTTs are freely available on the web, but the addresses (URLs) are not publicised, nor do search engines such as Google throw up “hits” for such sites. Users who have access to these sites (e.g. ATA) are not supposed to publicise the URLs and, should this happen, web-site managers (e.g. Railpage in Australia) generally delete the URLs from their sites (see NSW STNs below). This was true in Australia for

NSW STNs and for ARTC’s live timetable tracker. Neither are freely available now, but there may be many that still are. We are like Donald Rumsfeld—“We don’t know what we don’t know”.

Another problem with making WTTs available on-line and downloadable is that users can edit them to alter the content, possibly in potentially dangerous manners. For this reason, many downloadable WTTs carry a caveat “not valid when printed”. Some downloadable documents have security imposed to prevent editing (e.g. CRN) and some providers go so far as to actually prevent printing as well (some older NSW documents).

It should be noted also, that when this article talks about “timetables” accessible on the web, it is generally referring to printable timetables which in turn means, in most cases, PDF documents

[the above paragraphs might serve the purpose better than the fine granularity of what you say in the ARTC and V/Line text??]

Daily Train Plans

On most railways, WTTs are re-issued every day and incorporate amendments, cancellations, special trains and daily speed restrictions among other things. These are sometimes referred to as Daily Train Plans (DTPs). These are particularly vital on “fluid” railways such as the ARTC’s Hunter Valley lines, where yesterday, today and tomorrow can be like chalk and cheese. DTPs do not always exist in the printable versions so beloved of timetable collectors (but sometimes they do). Several systems supply their operating staff (drivers, guards) with print-outs of the DTP containing only summaries for only the services they are to operate. DTPs are usually on an Operator’s Intranet and are accessed by staff through mobile devices, but it is possible some are placed on “dark” web-sites.

Australian Rail Track Corporation (ARTC)

The ARTC place a very great deal of information on its website. This includes full details of its infrastructure. It includes their current WTTs. Indeed, it even places these on its website in two formats. These are:

- A tabular format¹.
- A graphical format².

Strictly speaking the ARTC is not an infrastructure owner [I don't think this is always true—Trans-Australia?]. Rather, it operates railway infrastructure on very long-term leases arranged with the Federal, New South Welsh, Victorian or (in a small case) Queensland governments.

It leases and controls most of the interstate mainlines, the very busy Hunter Valley coal network in NSW and a few other country lines in NSW and Victoria. It earns its money from the train paths it sells. It does not operate any trains itself. In 2008 the Australian Competition and Consumer Commission (ACC), following a call for submissions, enquiry and consideration, issued a decision concerning the conditions and costing for rail operators' access to ARTC line. On 8 July 2008, the ACCC and ARTC made a formal Access Undertaking. A copy of this is on the ACCC's website³.

You could drop the following (in black)?:

Clause 3.3. entitled "Access to Information reads, in part, "...ARTC will, if requested by an Applicant, provide the following information to Applicants to assist with negotiations: path length availability; Available Capability; axle load limitations; maximum allowable speeds; infrastructure characteristics; applicable safeworking requirements ..."

ARTC's lines within NSW, including the Hunter Valley Coal network, are also subject to oversight by the NSW Independent Pricing and Regulatory Tribunal (IPART). In 2005 IPART issued a NSW Rail Access Undertaking⁴.

Section 8 of this Undertaking requires the Rail Infrastructure Owner to provide an Information Package to a Rail access seeker. Schedule 5 of this Undertaking states, in part: "The Information Package will include:

(i) Network configuration

- Diagrammatic map of the Rail Infrastructure Owner's network showing track configuration
- Diagrammatic map showing Sector codes, as used for asset management and costing purposes
- Route kilometres and track kilometres by sector
- Curve and gradient diagrams, and ruling grades by Sector
- Line class and track design characteristics, by Sector.

(v) Operational and other information:

- Indicative sectional running times for various types of standard train.
- Indicative maximum trailing tonnages for locomotives of various characteristics, by Sector.

- Maximum axle loads and speed restrictions, by Sector.
- Indicative maximum train lengths, by Sector.
- The Rail Infrastructure Owner's Transit Space standards (defining dimensional requirements for Rolling Stock).
- The Rail Infrastructure Owner's standard access agreement.
- The Rail Infrastructure Owner's credit policy, when available
- Unutilised capacity
- Indicative figures for the number of unutilised Train Paths for representative trains of various configurations and characteristics as follows:
 - by Sector;
 - by time period;
 - by day of week."

The easiest way to provide this information is to put it on the web (not necessarily so. A more secure method would be to e-mail the files to an access seeker). Moreover, ARTC's income is in direct proportion to how many train operators it attracts to its rails. That is why it provides as much information to potential access seekers. We, as students of railway operating practice, are the collateral beneficiaries.

The final phrase quoted, "by day of week", would seem to explain why the ARTC undertakes the very cumbersome arrangement of their WTTs by each day of the week [more probably because (a) many freights run to slightly different schedules every day and (b) the data comes out of the TRIMS system, which is oriented to the DTP]. ARTC WTTs for lines other than those in NSW were available from its earliest days in Excel, thence PDF format—both graphical and tabular. When ARTC leased the interstate network within NSW it inherited its timetabling technology and staff. Ultimately, the NSW methods were extended to the whole system.

Although it seems very nice that we can access this information, in fact, it is now clear that ARTC's WTTs are not to be completely trusted. This is especially true of the tabular format WTTs. For example, after the Victorian North East line was duplicated in 2010, the tabular WTT continued to show trains stopped for "crosses" at former crossing loops for a number of editions. Earlier and for a longer period of time, the tabular WTT ignored the existence of the crossing loop at Mount Lofty in the Adelaide Hills, although a number of trains crossed there. There were/are probably other examples.

In other words, ARTC's tabular WTTs should be regarded as a result of a legal requirements and marketing documents, not as operating documents.

John Holland Rail NSW Country Regional Network (JHR CRN)

JHR CRN, like ARTC, is not an infrastructure owner, but operates and controls infrastructure on a lease (from the NSW Rail Infrastructure Corporation?). Its lines are scattered all over NSW, connecting at myriad points with mainly ARTC lines (and at one point with a Transport for NSW line). They are the lines that no one else – ARTC or Transport for NSW - want. Given the nature of its lines (it is impossible to use the term "network"), it has no choice but to basically adopt the same procedures as ARTC. [The main reason for the similarity is that JH inherited staff, software and Train Control systems from ARTC]. Hence the WTT for its various disconnected lines are also on its website⁵.

Despite saying that JHR CRN has no choice but to adopt the same practices as ARTC, there are some detailed points of difference:

ARTC's WTTs are separate documents for each line, and indeed for each direction of each line. JHR CRN's WTT is one consolidated document.

ARTC places Special Train Notices (they call them Train Alteration Advices [each railway tends to have its own name—in Victoria they are S-Notices]) on their website⁶ well ahead of time, but then often has to issue amendments. JHR CRN places their Special Train Notices (they call them Country Train Notices) on their site close to the event⁷.

Once placed on their website, ARTC's Train Alteration Advices stay there [not exactly—if they are amended, the earlier version drops off]. But JHR CRN's Country Train Notices drop off their website once the train concerned has operated.

Special Trains

Even if you have access to the ARTC and JHR CRN documents mentioned above, and even if they are accurate, you will not have a complete record of trains that will, or have, run. The schedules of some trains are altered at short notice, and some special trains run at short notice. Consequently, they are not recorded in the WTTs or in Train Alteration Advices (ARTC) / Country Train Notices (JHR CRN). The schedules of these trains are notified by what are often colloquially still referred to as "Telegrams", but nowadays are, of course, emails. These are only sent to the relevant railway operational staff. [Interesting—where did you get this piece of information? The actual planned running is compiled on the evening before and compiled into a Daily Train Plan (as described above). These are not available on the web, but are distributed via the TRIMS system. Telegrams are a NSW-only thing and have a formal definition—they are essentially

emergency amendments to STNs. STNs may be revised; Telegrams may not.

Transport for NSW

[OLD VERSION] Transport for NSW is the state government organisation which controls the railway infrastructure around Sydney. The website of Transport for NSW includes a lot of information about this network. This includes the WTTs (Weekdays and Weekends) of freight trains operated over their lines. However, this is a “dark” website. That is, if you know the address you can find it. But it forbids links to the site, and you will never find the site using an internet search engine. The website is arranged in this peculiar fashion, no doubt, to facilitate access by freight train and other train operators who require the information, but not by others.

Hereunder follows Victor’s rewrite

Transport for NSW is the state government organisation which controls the railway infrastructure around Sydney. Its website included a lot of information about the network. This included the WTTs (Weekdays and Weekends) of freight trains operated over their lines. Until 9 December 2015 their website was available. However, it was very peculiar, as it was a “dark” website. That is, if you knew the address you could find it. But it forbade links to the site, and you could never find the site using an internet search engine. The website was probably arranged in this peculiar fashion to facilitate access by freight train and other train operators who required the information, but not by others. [then why don’t other operators hide theirs?]. Sadly, however, this is now just recent history.

May I suggest wording it this way:

Transport for NSW is the state government organisation which controls the transport infrastructure and services (including the Passenger WTTs) around Sydney. Some features of operations—particularly the freight WTTs and Special Train Notices remain the responsibility of RailCorp (which still exists). For many years, Railcorp ran an open access “dark” website containing such material and much more besides. However, as of early December 2015, RailCorp removed Open Access from the site, after a railfan publicised the site too widely. The site still exists, but now requires a username and password.

One document from this web-site—the TOC manual—is replicated on the public RailSafe site..

V/Line

V/Line is both an infrastructure owner and a passenger train operator. V/Line issues

passenger and freight WTTs separately ~~has two types of WTTs:~~

Passenger WTTs, i.e., this is the WTT for V/Line operated passenger trains whether operating on V/Line tracks or on non-V/Line tracks (tracks controlled by ARTC—~~which actually compiles these timetables for V-Line and shows them within its own PDF MTP~~—or by Metro Trains), and Freight WTTs, i.e. this is the WTT of non-V/Line operated freight trains operating over lines controlled by V/Line [V/Line does operate a few of its own freights – infrastructure trains].

V/Line is required to comply with determinations of the Victorian Essential Services Commission (ESC) in regard to other train operators seeking access to its tracks. These determinations are available on ESC’s website⁸. An ESC decision of 22 June 2012 imposed on V/Line, an Access Arrangement, which mandated the public availability of a free Information Pack⁹ which was to contain a full range of information required by a potential Access Seeker, including the Network Service Plan and the Operating Handbook. Such other information also appears in the Information Pack.

Suggest you drop most of what follows for the same reason above for ARTC.

The agreement states in clause 3.2a(i):

- “V/Line has an Information Pack which is available
- 1) free of charge on its website www.vline.com.au or
- 2) can be mailed upon request (fee of \$250 plus GST...)”

Clause 5.2a states:

“V/Line’s Network Service Plan contains separate sections for passenger and freight timetables that have been developed with the respective train operators in accordance with their Access requirements and the procedures contained in this Access Arrangement and the Operating Handbook.”

Appendix 5 Definitions includes:

“Information Pack being that information as specified in section 2 (c) of the Negotiating Guidelines including copies of (c) the Network Service Plan, and (d) the Master Train Plan.....

“Master Train Timetable is that permanent timetable as referenced in the Operating Handbook

“Network Service Plan The network service plan as amended from time to time by V/Line in accordance with the Operating Handbook, and showing passenger train paths, Scheduled Services and Available Paths on the Network.

“Operating Handbook The current version of the handbook of procedures and proto-

cols as approved by the ESC, that sets out how train schedules and authorised working in the Network will accommodate customer needs, access requirements and resource availability. The handbook includes the Network Map and protocols required under the Network Management Rules and the Capacity Use Rules.”

Currently V/Line places an “Information Pack” for Access Seekers on its website¹⁰. This comprises their Passenger Working Timetables, Freight Working Timetables and very comprehensive information about V/Line infrastructure [also the Operating Handbook]. In early October 2015 V/Line redesigned their website. For a short time, this information disappeared, but it has now been re-instated [see Table Talk, xxx 2015]. But this did demonstrate strongly that one should access these sites while they are available.

[the above is a very laboured recapitulation of what has already appeared in Table Talk. May I suggest that only the bits in blue appear?]

V/Line operational staff [in common with the staff of practically every railway] now receive an electronic print-out of the timetable for their specific train [what is an “electronic printout”? - or at least what do you mean by the term?].

Summary for ARTC, CRN?, NSW and Victoria

The first reaction is that we are extremely lucky that these very interesting, useful, and once confidential documents are now easily available to us via the web. However, a closer inspection shows that some of the WTTs are in fact flawed.

Other Australian railways

Other infrastructure operators do not provide WTTs on their websites, but some do provide varying amounts of infrastructure information.

Queensland

The Queensland Competition Authority mandates track access in Queensland¹¹. To facilitate this, both Queensland railway infrastructure owners provide a large amount of information on their websites about their infrastructure, including detailed track diagrams. However, much of this is a number of years out of date [not sure of this]. These are in broadly similar format for both Queensland Rail¹² and Aurizon¹³, no doubt reflecting their common origin as parts of the former Queensland Railways. What about CityTrain?

What neither Queensland infrastructure owner does is provide any WTTs on their websites [even employees do not have direct access—allowed to look at but not download or print]. They seem to regard this as commercial-in-confidence infor-

mation. However, Pacific National (for one) creates its own WTT out of the QR/Aurizon WTTs and these sometimes escape from captivity onto the web.

Metro Trains Melbourne

Metro Trains and its predecessors used to place its WTT on its website. More accurately, when a new WTT was issued, they placed the immediately superseded edition on their website. In truth, as a compendium of suburban trains, it was bulky and repetitious [i.e. boring as batshit, just like those of other operators—they were worse because they were scanned images and could not be searched]. The only interesting part was the introductory pages. [somewhat repeated below] They have recently ceased to place any WTT on their website.

Metro Trains' website provides an extremely small amount of information about the infrastructure characteristics of their network. All they provide are two pages – one showing line speeds, and the other showing signal headways. The latter is quite out-of-date, for example showing Clifton Hill to Westgarth as still single track although it was duplicated in 2009. [The above is not true. Metro Trains have an on-line "System Description/WTT Addenda" which shows all of this stuff].

South Australia and North-South

The Essential Services Commission of SA regulates track access in SA¹⁵. The Commission states that rail infrastructure operators are required to "provide an Information Brochure to any rail industry participant requesting one ...provide other information reasonably required by an intending access seeker, and on a non-discriminatory basis"

Notwithstanding this, Genesee and Wyoming Australia, the SA rural branch-line operator, does not provide information about its network characteristics on their website. Presumably they would do so upon application. They do provide this information in regard to the North-South transcontinental line from Tarcoola to Darwin. However this is only an extremely small amount of information – a mere half page, giving only axle loads and line speeds¹⁶.

G&WA also does not provide any WTT information. It does provide extremely abbreviated freight train timetables for the North-South line¹⁷. These are for the information of freight consignors. This type of abbreviated freight schedule for this purpose is commonly found on the websites of US railroads (and used to be commonly provided in the former hard-copy North American *Official Railway Guide*).

Adelaide Metro does not provide any public information of this nature, but presumably would do so upon application.

Although it is a private, not official, site, there is a mass of SA railway infrastructure information on the SA Track and Signal website¹⁸ [plenty of sites like this, all around the country].

Great Southern Rail

Until recently GSR's website included detailed timetables of its trains. This follows a tradition that was started by its predecessor Commonwealth Railways, I think, from the time that the Trans Australian Railway opened in 1917. Presumably to ease the tedium of the long journey across the Nullarbor, CR provided to passengers detailed timetables, including the non-stop times at stations and sidings. This custom was continued by Australian National Railways and then by Great Southern Rail. Indeed GSR extended the idea to the full journey of all its trains, the Indian Pacific, Ghan and Overland. These were not WTTs in the sense of being operational documents used by railway employees. They were WTTs in the sense of showing all the times. A few months ago, in a revamp of GSR's website, they were removed. This is part of the trend of GSR to become more and more a tourist provider, and less and less a railway operator [and why would that be a determinant these "WTT"s were essentially tourists' lineside guides?].

Western Australia

The Economic Regulation Authority of WA states on their website¹⁹ that "Any business or individual seeking access to the railway system should apply in writing to the railway owner, seeking information on

- the available rail track capacity;
- the price and terms of use; and
- technical information such as track condition, curves and gradients; and other information such as timetables and existing or proposed train paths.

The railway owner must provide this information within 14 days."

Neither WA railway infrastructure authority provides WTTs on their websites [they don't exist these days] Like Queensland, this seems to be regarded as commercial-in-confidence.

However, both Brookfield Rail, operator of the WA rural network²⁰, and the Public Transport Authority of WA, owner of the metropolitan network²¹, provide a great deal of information about the characteristics of their networks.

Tasmania

In regard to TasRail - now returned to State government ownership - the question of track access does not arise. Consequently it does not provide any WTT or infrastructure information on its website [never did even when privately operated].

Overseas WTTs on the web

United States

Around 15 years ago, the two giant railroads of the western US, Burlington Northern Santa Fe and Union Pacific, placed their Employees' Timetables on their websites. North American Employees' Timetables' are not actually timetables. They are more akin to our General Appendices or Local Appendices in describing the infrastructure. (For an explanation of US Employees' Timetables see "The significance of North American Employees' Timetables" in the April 2015 edition of the *Times*, pages 3-13). After the attacks of 11 September 2001 American institutions got nervous about providing information about infrastructure, and these documents were removed from the web.

As far as I have been able to determine, the only North American railroad that now places its Employees Timetable on its website is the White Pass and Yukon Railroad. But this is a purely tourist operation. Indeed, it places this timetable in the "Railfans" section of its site²².

Britain

For the past two or three years the complete collection of British WTTs published by infrastructure owner, Network Rail, has been available on their website. Although the website says "For the rail industry use only", they are readily accessible. It is believed that this happened after railfans started requesting copies through Freedom of Information legislation [it was a spin-off from an earlier FoI case against London Underground]. After a while National Rail got tired of responding to individual requests and decided to place them all on its website. This is a huge collection of documents²³. [the infrastructure documents dwarf even the WTT]

More recently [I think you've got it back-to-front], Transport for London has followed and it too now places the WTTs for all underground lines on its website²⁴.

Europe

The Swiss Federal Railways, SBB, has a full set of WTTs on the world wide web. This collection also extends to most Swiss private railways. These are WTTs in the European fashion – that is, graphical timetables²⁵.

Swedish Railways, SJ, place their current graphical WTTs on their website²⁶.

Similarly, the Norwegian Railways, NSB, very kindly place their graphical WTTs on their website²⁷.

Most European railway infrastructure authorities have information on their websites about how train operators can

access their networks, usually also translated into English. Sometimes this includes a small amount of information about their system infrastructure. [What about Network Statements then?]

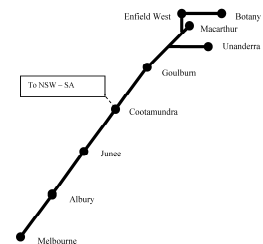
Master Train Plan



Freight and Country Passenger Services

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NSW (Botany/Unanderra) – VIC (Melbourne)



AUSTRALIAN RAIL TRACK CORPORATION LTD

- 1 <http://www.artc.com.au/customers/operations/mtp/>
- 2 <http://www.artc.com.au/customers/access-interstate/committed-capacity/register.registers.acc.gov.au/content/item.phtml?temId=844436&nodeId=b77990c532c742e97cbf84b34e717198&fn=Undertaking.pdf>
- 3 http://www.ipart.nsw.gov.au/Home/Industries/Transport/Rail_Access_Compliance/NSW_Rail_Access_Undertaking
- 4 <http://www.jhrcrn.com.au/Documents.asp?ID=67>
- 5 <http://www.artc.com.au/customers/operations/notices/taa/>
- 6 <http://www.jhrcrn.com.au/Documents.asp?ID=65&Title=Country+Train+Notices+%28CTN%29>
- 7 www.esc.vic.gov.au
- 8 <http://www.esc.vic.gov.au/getattachment/5692db06-df49-4f9f-b23a-1c7bde4c9e8e/V-Line-proposed-access-arrangement-variation-A-%281%29.pdf>
- 9 <https://corporate.vline.com.au/Network-Access/Network-service-plan>
- 10 <https://corporate.vline.com.au/Network-Access/Network-service-plan>
- 11 <http://www.qca.org.au/Rail>
- 12 <http://www.queenslandrail.com.au/forbusiness/the-regional-network>
- 13 <http://www.aurizon.com.au/network/central-queensland-coal-network>
- 14 <http://www.metrotrains.com.au/doing-business-with-metro/>
- 15 <http://www.escosa.sa.gov.au/sa-rail-overview.aspx>
- 16 http://www.gwrr.com/operations/railroads/australia/genesee_wyoming_australia/access_seekers
- 17 http://www.gwrr.com/operations/railroads/australia/genesee_wyoming_australia/gwa_service_schedules
- 18 <http://www.sa-trackandsignal.net/>
- 19 <https://www.erawa.com.au/rail/rail-access/are-you-an-access-seeker>
- 20 <http://www.brookfieldrail.com/about-us/our-network/network-specifications/>
- 21 <http://www.pta.wa.gov.au/PublicationsandPolicies/SafetyResources/tabid/107/Default.aspx>
- 22 <http://wpyr.com/railfans/employee-timetable/>
- 23 <http://www.networkrail.co.uk/browseDirectory.aspx?dir=\Timetables\Working%20timetable%20%28WTT%29&root=>
- 24 <https://tfl.gov.uk/corporate/publications-and-reports/working-timetables>
- 25 <http://www.fahrplanfelder.ch/de/archiv/grafische-fahrplaene/>
- 26 <http://www.trafikverket.se/for-dig-i-branschen/jarnvag/tagplan-att-skapa-tidtabeller-for-tag/Tagplan-2015/dagliga-grafer-2015/>
- 27 <http://www.jernbaneverket.no/Marked/Informasjon-for-togselskapa/Grafiske-togruder-fom-14desember-2014/>

Inner Canberra's Bus Service

HILAIRE FRASER

FOLLOWING A RECENTLY PUBLISHED article on Canberra's Blue Rapid Bus Service, this article looks at bus services in Inner Canberra that is that part of Canberra to the immediate north and south of Lake Burley Griffin, indeed that part designed by Walter Burley and Marion Mahoney Griffin.

Examining the 1968-69 Northern and Southern Suburbs Bus Route Map accompanying this article (right) Inner Canberra bus routes were :-

Southern Suburbs:-

- 1 City-Manuka-Golden Grove-Red Hill
- 2 City-Manuka-Caley Cres-Red Hill
- 3 City-Kingston-Griffith-Narrabunbah
- 6 City-Kingston-Canberra Av-Narrabunbah
- 7 City-Causeway
- 12 Yarralumla-Manuka-Kingston -Barton
- 14 Yarralumla-City-War Memorial Northern Suburbs:-
- 24 City-Northbourne Av-Watson-Downer
- 25 City-Cowper St-Dickson-Hackett
- 26 City-Reid-Campbell-Airport
- 27 City-Canberra Hospital
- 28 City-Ainslie-Hackett
- 29 City-Miller St-Lyneham
- 30 City-O'Connor-Lyneham-City

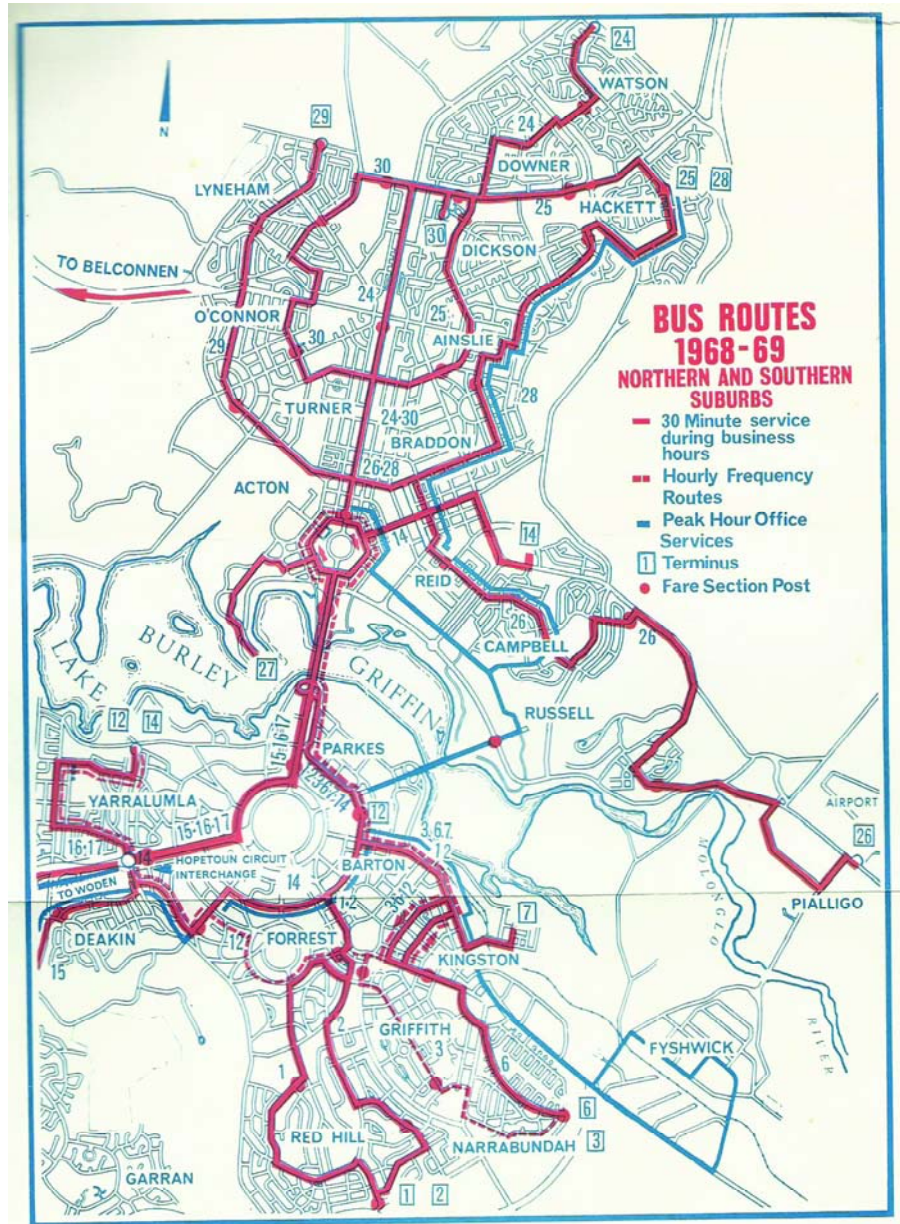
Also there were unnumbered limited Special Services:- City-Russell, City-Fyshwick, City-University,

Routes 1 to 7 and 24 to 30 were contained in a timetable booklet approximately 125mm by 175mm printed portrait-wise available for five cents. Routes 12 and 14 were published in a companion booklet for Wooden Valley, Deakin and Yarralumla.

The seven northern routes may be considered as starting with a trunk at Northbourne Av (route 24), then three branches to the east (routes 25, 28, 26) and three to the west (routes 27, 29, 30). In fact starting at Northbourne Av these routes are numbered from 24 to 30 in a clockwise order except for route 28.

These routes with the exception of 3, 12, 14 and 26 were coupled as follows:-

1/29, 2/25, 6/28, 7/24, 27/30 The " / " meant that a service starts as route 1, for example, and then travels along route 29. Buses had headers above the front windscreen with two route number boxes and a box for the destination roll. In the route number boxes rolls carried consecutive numbers from 0 to 50. This practice followed an earlier practice whereby buses had only two route number boxes on the front and destination rolls on both sides. The boxes at the front



would show numbers 1 through 7 for southside routes and combinations of the letters A, B, F, R and T for northside routes.

Thus, a bus showing 2AR would travel from Kingston to Ainslie via route 2 (Manuka, Forrest, National Circuit, Barton) Acton and Euree St Reid to Ainslie. From 1974 Canberra operated Leyland National and MAN SL200 buses equipped with standard 3 roller route number boxes.

Until the practice of route coupling was discontinued in January 1977 the standard route number boxes would display 129, 225, 628, 724 and various other coupling then in use at weekends. A bus on 27/30 would simply display 30 the longer of the two coupled routes.

In 1968-69 services operated every 30 minutes Mondays to Fridays increasing to 15 minutes during peak hour for all routes excluding 3 and 12. These routes operated hourly Mondays to Fridays increasing to 30 minutes during peak periods. Evening and weekend services operated hourly.

On 27 November 1971 new weekend timetables were introduced with the following couplings:- 1/25, 2/28, 3/30, 6/29, 7/24. These services ran at reduced frequency of 80 minutes and one bus could operate the entire route. 26 operated alone at an 80 minute frequency whilst 27 to the Hospital had an increased service to 30 minutes.

In December 1972, 12 Yarralumla-Manuka-Kingston -Barton was altered to operate Woden- Hughes- Yarralumla-

Manuka-Kingston -Fyshwick. Also 14 Yarralumla-Forrest-City-War Memorial and 17 City-Curtin-Woden were combined to form the new 17 Woden-Curtin-Yarralumla-City-War Memorial-Campbell Park.

Forrest was now included in 15 City-Forrest-Deakin-Hughes-Garran-Woden.

By January 1977 12 was cut back to operate Woden-Kingston with a new 4 operating Kingston-Fyshwick, 26 City-Reid-Campbell-Airport had been split into 26 City-Reid-Campbell-Campbell Park and 31 City-Constitution Av-Airport/RAAF, 31 now provided a regular service to Russell. A new 32 operated City-Majura Av-Philip Av-Northbourne Av- Watson. A new 33 replaced the eastern part of 17 to operate City-War Memorial-Campbell Park. Service changes in late 1977 had the 7 discontinued with a new 311 operating City-Russell-Manuka-Kingston extending to Fyshwick in the peak period. The 12 Woden-Hughes-Yarralumla-Manuka-Kingston service became the 320 Woden-Hughes-Yarralumla-Manuka-Kingston - Causeway service replacing the 7 between Kingston & Causeway and 4 Kingston-Fyshwick was renumbered 310. 33 City-War Memorial-Campbell Park was now numbered 302.

Now 300 series numbers were used on the

regular Inner Canberra services 302 310 311 and 320.

In 1979 with renumbering in the 300 series North and South Routes were:

- 300 City-Canberra Hospital (formerly 27)
- 301 Free Inner City Service
- 302 City-War Memorial-Campbell Park
- 303 City-Reid-Campbell-Campbell Park (formerly 26)
- 305 City-University
- 304 City-Constitution Av-Airport/RAAF (formerly 31)
- 307 City-Reid-Campbell-War Memorial-City (anti-clockwise weekend service)
- 308 City-War Memorial-Campbell-Reid - City (clockwise weekend service)
- 320 Woden-Hughes-Yarralumla-Manuka-Kingston -Causeway
- 323 City-Russell-Manuka-Kingston-Fyshwick-Woden (combined 310 & 311)
- 350 City-Manuka-Golden Grove-Red Hill (formerly 1)
- 351 City-Manuka-Caley Cres-Red Hill (formerly 2)
- 352 City-Kingston-Griffith-Narrabunbah (formerly 3)
- 353 City-Kingston-Canberra Av-Narrabunbah-Red Hill (formerly 6)

- 354 City-Causeway-Kingston-Canberra Av -Narrabunbah (weekends when 320 terminates at Kingston)
- 380 City-Miller St-Lyneham (formerly 29)
- 381 City-O'Connor-Lyneham-City (formerly 30)
- 382 City-Northbourne Av-Watson-Downer (formerly 24)
- 383 City-Cowper St-Dickson-Watson (formerly 25)
- 384 City-Majura Av-Phillip Av-Mitchell (formerly 32)
- 385 City-Ainslie-Hackett-Dickson (formerly 28)

Since 1999 weekday inner Canberra routes have reverted to one and two digit route numbers and the current weekday network is as follows:-

- 1 Dickson-Lyneham-Turner-City-Yarralumla-Hughes-Woden (operates 60 mins daytime, 20 mins peak, 60 mins evening)
- 2 Dickson-Hackett-Ainslie-City-Deakin-Curtin-Woden (operates 30 mins daytime, 20 mins peak, 60 mins evening, supplemented by peak hour route 732 City-Curtin-Woden operating every 30 mins)
- 3 Belconnen-Bruce-ANU-City-Deakin-Hughes-Garran-Woden (operates 30



- mins daytime, 20 mins peak, 60 mins evening)
- 4 City-Russell-Red Hill-Woden (operates 30 mins daytime, 20 mins peak, 60 mins evening)
- 5 City-Russell-Narrabunbah-Woden (operates 30 mins daytime, 20 mins peak, 60 mins evening)
- 7 National Museum-City-Cowper St-Dickson-Belconnen (operates 30 mins daytime, 20 mins peak, 60 mins evening. In the am peak operates as 7 Belconnen-City, 7A City-National Museum)
- 8 City-Miller St-Dickson (operates 60 mins daytime, 20 mins peak, 60 mins evening)
- 9 City-Campbell-Aust Defence Force Academy (operates 60 mins daytime, 30 mins peak, 60 mins evening)
- 10 City-War Memorial-Majura Pk (operates 60 mins daytime, 20 mins peak, 60 mins evening)
- 11 City-Constitution Av-Fairbairn Pk (operates 60 mins daytime, 30 mins peak, no evening service)
- 30 City-Northbourne Av-Kaleen North-Giralang-Belconnen (operates 60 mins daytime, 20 mins peak, 60 mins evening)

- 31 City-Northbourne Av-Kaleen South-Belconnen (operates 60 mins daytime, 20 mins peak, 60 mins evening)
- 39 City-Northbourne Av-Watson (operates 30 mins daytime, 10 mins peak, 60 mins evening)
- 80 City-Fyshwick-Woden (operates 60 mins daytime, 30 mins peak, no evening service)
- 81 City-National Zoo & Aquarium Tourist Loop (operates 90 mins daytime only)

Details can be seen in the maps on page 15 and 16.

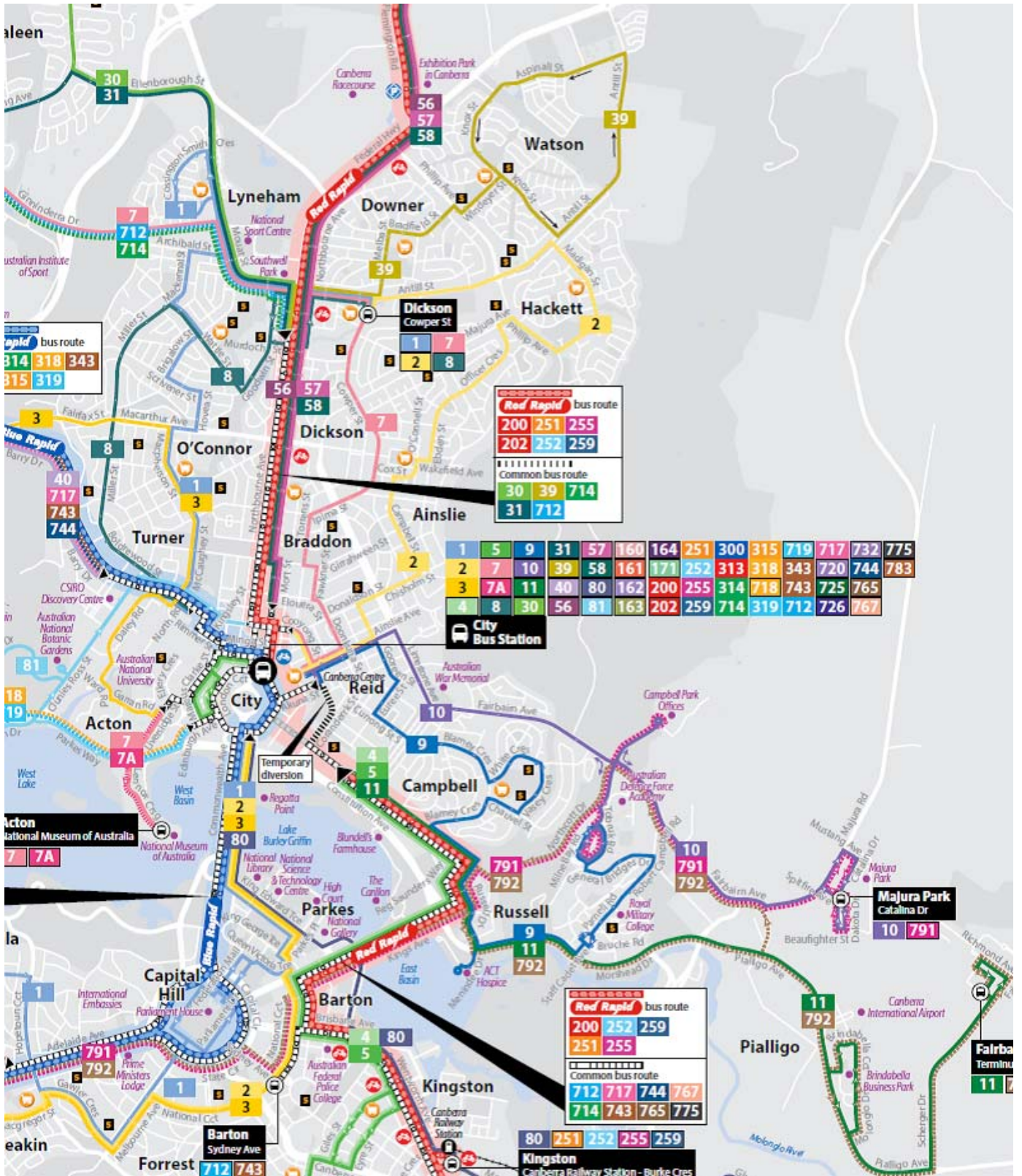
In Canberra a separate weekend network operates with services every 60 minutes, except for 981 which operates every 90 mins. Saturday evening services operate, but Sunday evening services have final departures at about 6.30pm. Inner Canberra weekend routes are as follows:-

- 909 City-Campbell-Aust Defence Force Academy (same as 9)
- 910 City-War Memorial-Majura Pk (same as 10 but excludes deviations to Aust Defence Force Academy and Campbell Park)
- 932 Belconnen-Giralang-Kaleen-Northbourne Av-City-Yarraumla-Curtin-

Woden (combines weekday 30/31/1 South/2 South)

- 934 Belconnen-Bruce-ANU-City-Deakin-Hughes-Garran-Woden (same as weekday 3 with additional deviations to National Museum (weekday 7 South) and Parliament House (weekday 1 South))
- 935 City-Red Hill-Narrabundah (same as weekday 4 but via Parkes rather than Russell and terminates at Narrabundah rather than Woden)
- 936 City-Miller St-Lyneham-Dickson-Hackett-Ainslie-City (combines weekday 8/1 North/2 North)
- 937 City-Ainslie-Hackett-Dickson-Lyneham-Miller St-City (reverse of 936)
- 938 City-Russell-Narrabundah-Woden (same as weekday 5)
- 939 City-Cowper St-Dickson-Watson (combines weekday 7 north and 39)
- 980 Belconnen-Dickson-Northbourne Av-City-Fyshwick (combines weekday 7 north of Dickson, 39 along Northbourne Av and 80)
- 981 City-National Zoo & Aquarium Tourist Loop (same as 81)





To Dickson

1

Worden Bus Station
 Hughes Shops
 John James Hospital
 Yarralumla Shops
 Deakin Shops
 Parliament House
 City Bus Station
 O'Connor Shops
 Lyneham Shops
 North Lyneham Shops
 Dickson Shops
 Cowper St

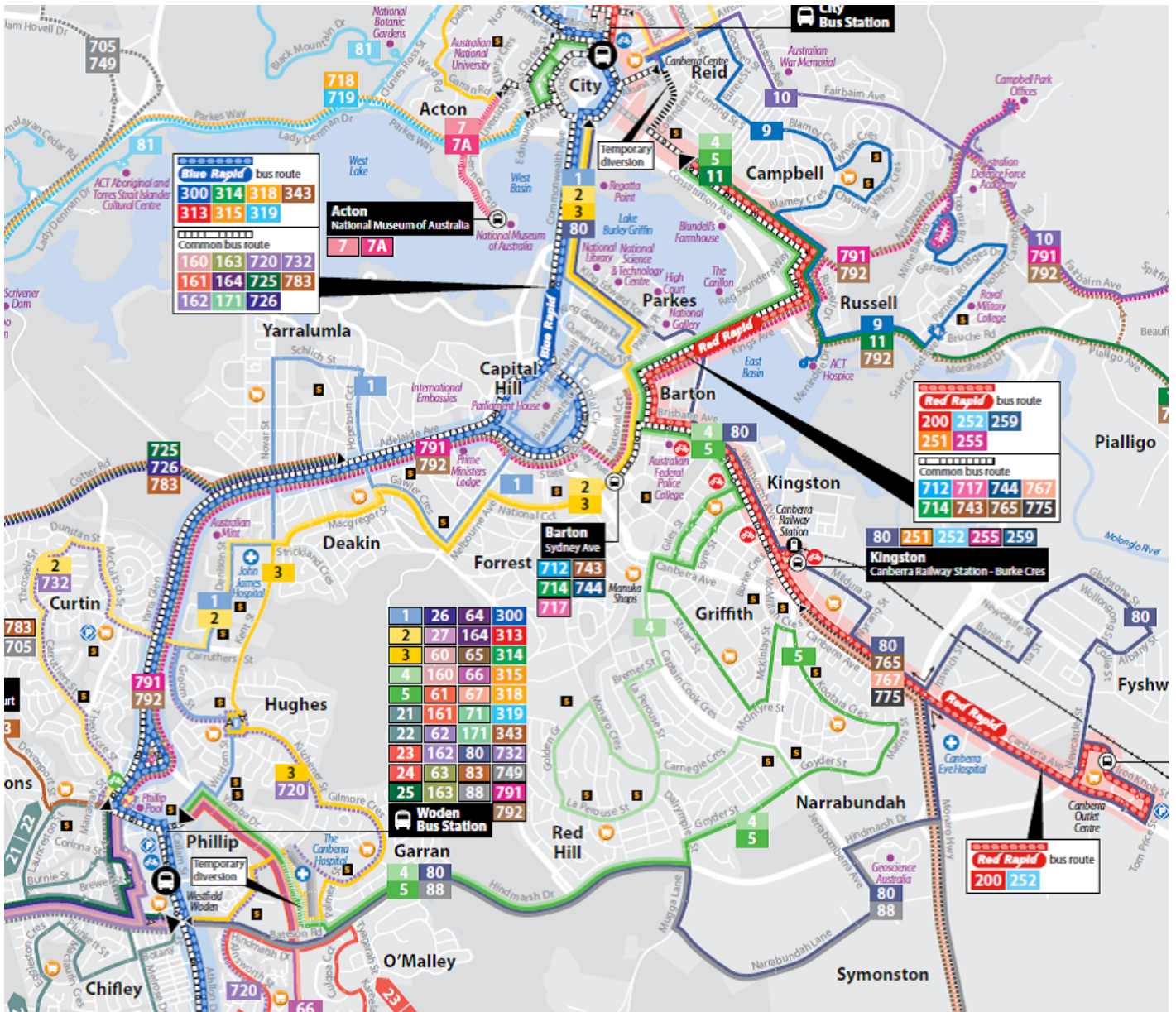
K J I H G F E D C B A

Stop ID
 Route number
 Platform

2710
 10
 2540
 2308
 2643
 2245
 3405
 4610
 3378
 Platform 4

Monday to Friday

1	6:28a	6:31a	6:34a	6:37a	6:41a	6:46a	6:55a	7:00a	7:04a	7:09a	7:18a
1	6:47a	6:50a	6:53a	6:56a	7:00a	7:06a	7:18a	7:23a	7:27a	7:32a	7:42a
1	7:03a	7:07a	7:10a	7:12a	7:16a	7:22a	7:34a	7:41a	7:45a	7:50a	8:00a



1

Stop ID
Route number

To Woden

- Dickson Shops/
Cowper St
- North Lyneham Shops
- Lyneham Shops
- O'Connor Shops
- City
Bus Station
- Parliament House
- Deakin Shops
- Yarralumla Shops
- John James Hospital
- Hughes Shops
- Woden
Bus Station

A	B	C	D	E	F	G	H	I	J	K
3132		3379	4609	3409	2246	2642	2450	2304	2588	2916
				Platform 7						

Monday to Friday

1	.....	.....	.....	.....	6:43a	6:51a	6:56a	7:00a	7:03a	7:07a	7:12a
1	6:46a	6:51a	6:57a	7:01a	7:10a	7:20a	7:28a	7:33a	7:37a	7:42a	7:48a
1	7:05a	7:11a	7:19a	7:24a	7:33a	7:44a	7:51a	7:56a	8:00a	8:05a	8:11a
1	7:27a	7:34a	7:44a	7:50a	8:00a	8:11a	8:18a	8:23a	8:27a	8:32a	8:38a
1	7:49a	7:56a	8:06a	8:12a	8:22a	8:33a	8:40a	8:45a	8:49a	8:54a	9:00a