

Traffic growth - predictive implications

Total 600k passengers per annum between Aztec West and Pilning in year 3 ...
 Numbers would rise to 800k per annum on 1% growth at year 30, 2.9 million on 6% growth.
 Growth rate / rail travel over last decade is 8%, and initial traffic estimates usually low.
 At 1% growth, capital station cost 27 years (year 3 to year 30) - 81p per passenger journey
 At 6% growth, capital station cost 27 years (year 3 to year 30) - 39p per passenger
 Without "optimism factors" of caution, (30 years, higher growth, better take off) - 15p to 20p

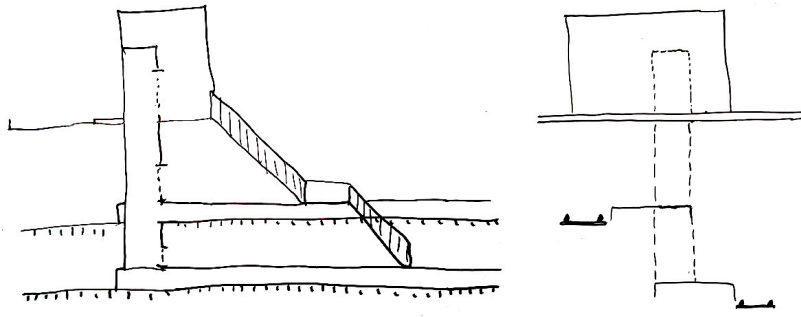
NOTE - at 6% growth, 2.9 million annual journeys, infrastructure enhancement needed in 2040
 NOTE - service needs to bed in for 3 years, so year 1 and 2 passengers not costed.

Abstraction of traffic from other transport?

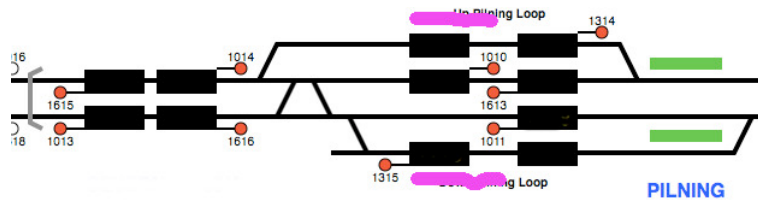
Some parking at Pilning from Parkway BUT Parkway lacks capacity
 Some at Pilning from Severn Beach
 Some at Aztec West from Patchway - perhaps 20 round trips per day
 Some longer distance Metrobus journeys impacted; short journeys added to interchanges
SEWWEB complements rather than competes with MetroWest

Economic and environmental gains

Reduced traffic congestion - North Bristol, City Centre and M5 Avonmouth section
 Facilitator for travel to / from CPNN
 Air pollution reduction
 Removes need for additional road infrastructure
 Business enabler
 Unlocks access to South Gloucestershire development land around Pilning
 Provides emergency Severn Tunnel evacuation station at English end



Aztec West (Above) and Pilning Westgate (Below)



Train Services

All three stations will be served by 2 trains per hour calling at all stations between Newport and Bristol Temple Meads - that's the current Cardiff to Taunton service, and the Weston-super-mare to Bristol Parkway service, extended through the Severn Tunnel.

Additional peak services will call in the morning and late afternoon / early evening, offering direct commuter trains to and from Keynsham, Bath Spa, Bradford-on-Avon and stations via Salisbury to Southampton and Portsmouth.



Sample hour timetable - South Wales to Bristol

Current services:	..tau	..7b	..xc	..pad	..pmh	..WSM	..wsb	..xc	..pad	..7b
l_now	12:00	-	-	12:26	12:30	-	-	-	12:55	-
CDP	12:14	-	-	12:40	12:44	-	-	-	13:08	-
NPT	12:26	-	-	-	-	-	-	-	-	-
STJ	-	-	-	-	-	-	-	-	-	-
PIL	-	-	-	-	-	-	-	-	-	-
AZW	-	-	-	-	-	-	-	-	-	-
PMW	12:38	-	-	-	-	-	-	-	-	-
BPW	-	-	12:58	13:03	-	-	13:21	13:28	13:33	-
BPWd	-	-	13:00	-	-	13:12	13:23	13:30	-	-
FAN	12:43	-	-	-	13:10	13:16	13:25	-	-	-
SRD	-	13:01	-	-	-	-	13:32	-	-	13:42
LHL	-	13:03	-	-	-	-	13:34	-	-	13:44
BRT	12:51	13:10	13:11	-	13:18	13:24	13:39	13:41	-	13:50

With SEWWEB:	..tau	..xc	..pad	..7b	..pmh	..WSM	..wsb	..xc	..pad	..7b
l_2020	12:00	-	12:26	-	12:30	-	-	-	12:55	-
CDP	12:14	-	12:40	-	12:44	-	-	-	13:08	-
NPT	12:26	-	-	-	-	-	-	-	-	-
STJ	12:26	-	-	-	-	-	-	-	-	-
PIL	12:34	-	-	-	-	-	-	-	-	-
AZW	12:42	-	-	-	-	-	-	-	-	-
PMW	12:45	-	-	-	-	-	13:19	-	-	-
BPW	-	12:58	13:03	-	-	13:12	13:22	13:28	13:33	-
BPWd	-	13:00	-	-	-	13:14	13:26	13:30	-	-
FAN	12:48	-	-	-	13:10	13:18	13:28	-	-	-
SRD	12:55	-	13:07	-	-	13:25	-	-	-	13:37
LHL	12:57	-	13:09	-	-	13:27	-	-	-	13:39
BRT	13:02	13:11	-	13:16	13:18	13:32	13:39	13:41	-	13:46

Note - lots of other things changing. SEWWEB also needs to work with:
 * Widening of Filton Bank from 2 to 4 tracks and MetroWest changes / increases
 * Bristol to London via Parkway IET services running on the 4 tracks too
 * Increase up to 30 minute frequency of trains via Clifton Down
 * Aspirations for 4 trains per hour South Wales to Bristol
 * Re-timetable of London expresses for class 800 trains and knock on effects
 - This illustrative timetable alternates SEWWEB trains to Taunton and Westbury
 - Cheltenham Spa / Worcester / Gloucester services now run to Weston-s-mare
 - Severn Beach regularised to half hourly / trains pass at Clifton Down

lex	..n	..n	..n	..s	..s	..s
PAD	06:45	07:15	08:15	16:15	17:15	18:15
RDG	07:12	07:42	08:42	16:42	17:42	18:42
DID	-	07:56	08:56	16:56	17:56	18:56
SWI	07:39	08:14	09:14	17:14	18:14	19:14
BPW	08:09	08:41	09:41	17:41	18:41	19:41
AZW	08:15	08:47	09:47	-	-	-
PIL	-	-	-	17:51	18:51	19:51
NPT	08:34	09:10	10:10	18:08	19:08	20:08
CDP	08:51	09:27	10:27	18:28	19:28	20:28

These are direct services.
 Hourly services available all day with a change at Bristol Parkway



Three Cardiff to London "electric expresses" will call at Pilning in the morning, with three matching return services in the evening for London business travellers from South Gloucestershire and the Forest of Dean.

Three London to Cardiff "electric expresses" will call at Aztec West in the morning, with three matching return services in the late afternoon. These services will provide for staff and visitors to businesses at Aztec West and (via Metrobus) at Cribb's Causeway from Swindon, Didcot, Reading and London.

For further information - <http://www.sewweb.info>

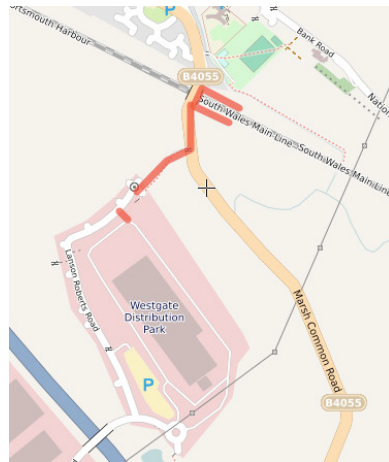
Current journey times, and times using SEWWEB stations

- Westgate Park and Pilning to London Paddington in 95 minutes (currently 150) [140 by car]
- Aztec West to Bristol Temple Meads in just 22 minutes (currently 50) [20 by car]
- Park and ride at Pilning to centre of Cardiff in 40 minutes (currently 110) [55 by car]
- Aztec West to Bristol International Airport in an hour (currently 90 minutes) [30 by car]
- Trowbridge to Aztec West in 50 minutes (currently 95 minutes) [45 by car]

Passenger flow projections (new journeys totalling 2000 per day by year 3)

Pilning

- * Distribution Park (25)
 - * Park and Ride (100)
 - * Wild life park (5)
 - * Other tourism (1)
 - * Wave Water park (20)
 - * Business Park (20)
 - * Village resident (50)
 - * Cycling trips (2)
 - * Wave - residences (50)
- = 273 each way per day; c 165,000 jpa



Showing access routes at stations

Aztec West

- * Business commute (150)
 - * Residential (250)
 - * Cribbs Bus (200)
 - * Business visitors (50)
 - * Thornbury Bus (40)
 - * College (30)
- = 720 each way per day; c 430,000 jpa

Build schedule and costs

Pilning Westgate

- * Two 5 carriage platforms (140 metres) by 4 metres on outer tracks
 - * Two fenced slopes from B4055 road / 10 metre drop over 250 metres (Similar Oldfield Park)
 - * Two Bus Shelters
 - * Lighting and tannoys
 - * Total 10 notice board panels
 - * One ticket machine
 - * Two help points with WebTis train information
 - * South Gloucestershire Highways to provide car park
- Total cost estimate £4.0 million

Aztec West

- * Two five carriage platforms between tracks built above each other (two levels)
 - * Once reception office and lift house
 - * Two staircases from lower platform to road level inc. upper platform landing
 - * Small Shelter for passenger waiting on upper platform
 - * Two ticket machines
 - * Lighting and tannoys
 - * Two train departure displays (platform)
 - * One lift - lower platform, upper, road level
 - * Three help points (lift lobby and each platform)
 - * Departure screens in lift lobby & at south end
- Total cost estimate £11 million

South East Wales and West of England Business (SEWWEB) Rail Link

Fast and regular train services connecting South Wales, North Somerset and the inner residential areas of Bristol with the Patchway, Aztec West and Westgate business areas of North Bristol, and with Bristol Temple Meads for the City Centre and ongoing train connections to the rest of the UK.

Up to five trains an hour will serve a new station at Aztec West, a re-sited Pilning (Westgate) station, and the existing Patchway station allowing quick and easy rail travel between home and work.

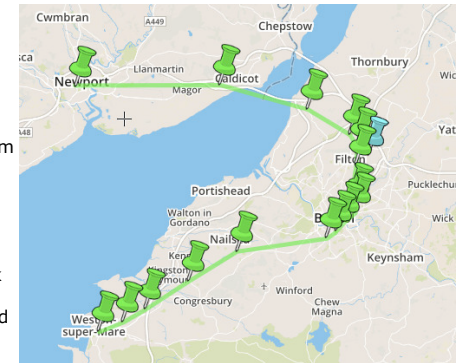
The budget for this project is £15 million and the estimated built time from breaking ground to the commencement of service is just a year. A single extra local train is required, which as well as helping to provide half hourly services at the new and revitalised stations will meet stakeholder aspirations for an increased service from Bristol Temple Meads so South Wales.

Key business stations

* **Aztec West** will be the closest station to Cribb's Causeway - just two stops on the MetroBus, and will have station entrances both at the south of the station and at the north direct to the business park. Buses from Thornbury running directly along the A38 stop just a stone's throw from the station.

* **Pilning Westgate** on Cross Hands Road will have easy path access to the Westgate distribution centre and business parks, park and ride space with easy access off the old Severn Bridge for residents of Chepstow and the Forest of Dean, and be within easy and paved walking distance of the village. Leisure traffic is catered for to, with buses running to Wave, to the Wild Place project and to Severn Beach. There are connections to the National Cycleway network for days out including cycling over the Severn.

* **Patchway** station will serve industry and residences on Gypsy Patch Lane, and a stop on the Metrobus extension. It's within a short stroll of the Cribbs Patchway New Neighbourhood (CPNN) which will be built over the next ten years.



The station build at Pilning Westgate (provisional name) is straightforward, and with the platforms on the outer tracks operationally robust. That provides an option for faster trains to overtake slower ones, as at Dawlish Warren and at Totnes. There is a choice to be made as to whether the eastbound platform is situated to the east or west of the access road bridge

The station at Aztec West will be higher cost due to engineering work challenges of the location. Again there are two options - staggered platforms with the eastbound platform close to the A38 bridge and the westbound accessed via a ramp at the far end (then with steps up to the business park) or stacked platforms by the A38 bridge and steps up from the end of both platforms to the business park

Patchway station is already available. The footbridge is due to be replaced by a temporary structure in June 2018 with fully compliant accessible bridge opening about a year later. This work is from a separate budget and underway and to be completed prior to Sewweb.

This leaflet at <http://www.sewweb.info/leaflet.pdf>