



FRIDAY 4<sup>TH</sup> DECEMBER

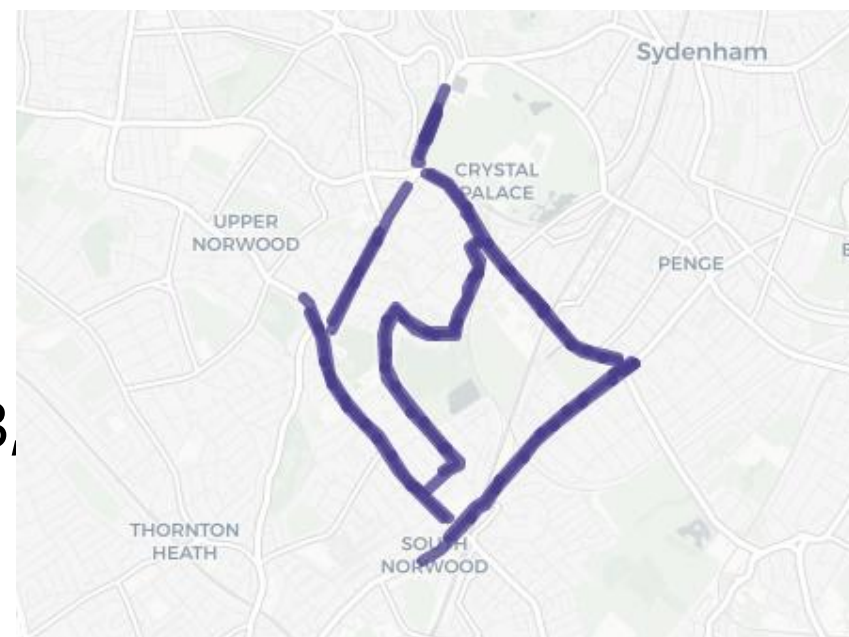
# CRYSTAL PALACE LTN MONITORING



## Monitoring Area

Bus journey times have been monitored for the sections highlighted purple below. These comprise 6 bi-directional corridors, which in most cases include journey times for multiple routes:

- **Anerley Road** (routes 157, 249, 354, 358, 410, 432)
- **Auckland Road** (route 410)
- **Church Road** (route 249)
- **Crystal Palace Parade** (routes 3, 122, 202, 227, 363,
- **Norwood Hill** (routes 196, 468)
- **Penge Road** (routes 75, 157, 197, 356)



SCOOT data was also used to monitor bus & traffic impact.

- Astrid Flow Data – To compare the amount of flow moving through the network during the installing, operating, removal of temp signals and LTNs.



# Roadworks and Closures



- **22nd March** - Scaffold / Temp signals implementation
- **June - July (exact dates unknown)** – Auckland Road closed for SGN gas works
- **21st August** - LTN implementation

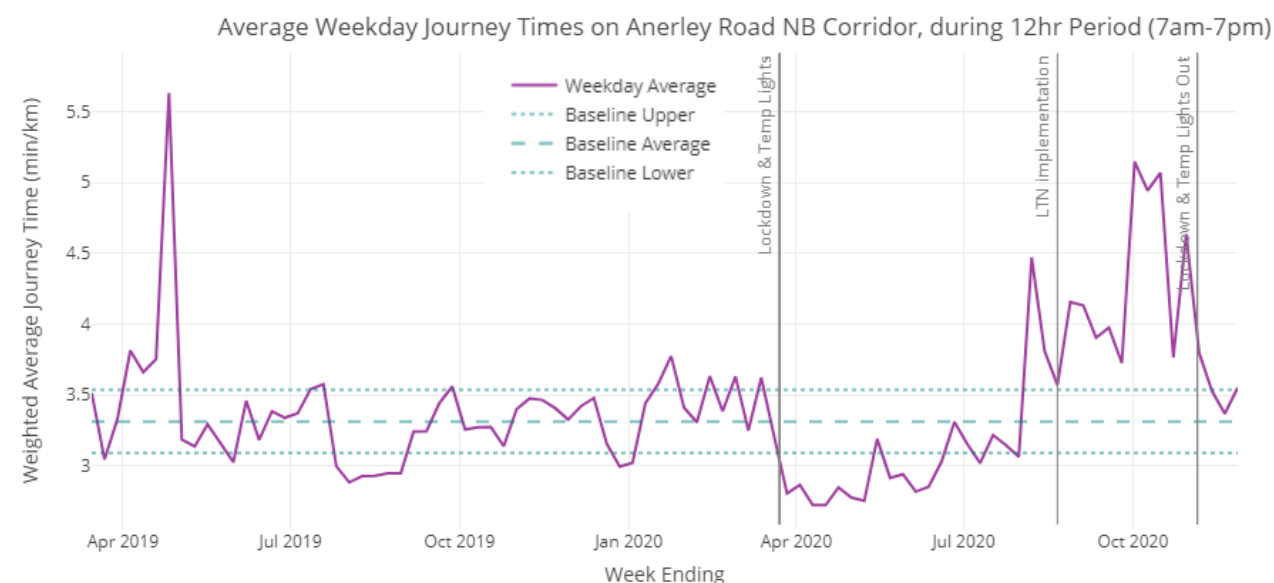
Road/Section of Road Name	2. Closed between	3. TTRO start date	4. Expiry of TTRO
Lancaster Road, South Norwood (fronting Nos. 2 to 8 Lancaster Road)	Southern Avenue, South Norwood	22/05/20	22/11/21
Auckland Road (fronting property Nos. 70 to 110 Auckland Road), Upper Norwood	Cypress Road, Upper Norwood	03/07/20	03/01/22
Fox Hill, Upper Norwood	Braybrooke Gardens, Upper Norwood	21/08/20	21/02/22
Stambourne Way, Upper Norwood	Auckland Road, Upper Norwood	21/08/20	21/02/22
Sylvan Hill, Upper Norwood	Between Nos. 11 & 13 Sylvan Hill, Upper Norwood	21/08/20	21/02/22

- **1st November** - Scaffold / temp signal removal
- **1st – 3rd November** – SCOOT fault at Anerley and Church Road junction
- **10th November** – Temp signals on Anerley for Thames works (1 day only, very large delays)



# Bus Journey Times: Anerley Road Corridor

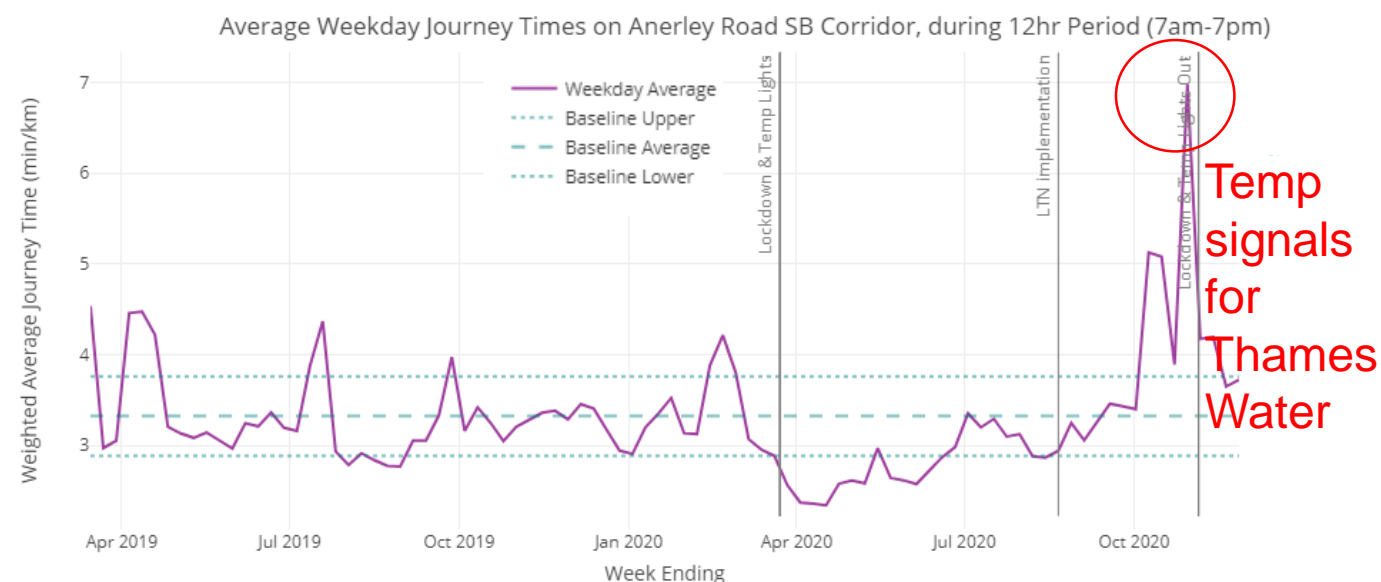
The Anerley Road corridor has shown increased journey times since scheme implementation. These reduced with the 2<sup>nd</sup> lockdown / temp lights being removed.



The **NB** journey times increased post-implementation and exceeded the threshold 13 of the 15 weeks.

Journey times were **0.2 min/km (7%) higher** 7am-7pm W/E 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.

The **SB** journey times also increased post-implementation and exceeded the threshold 6 of the 15 weeks.



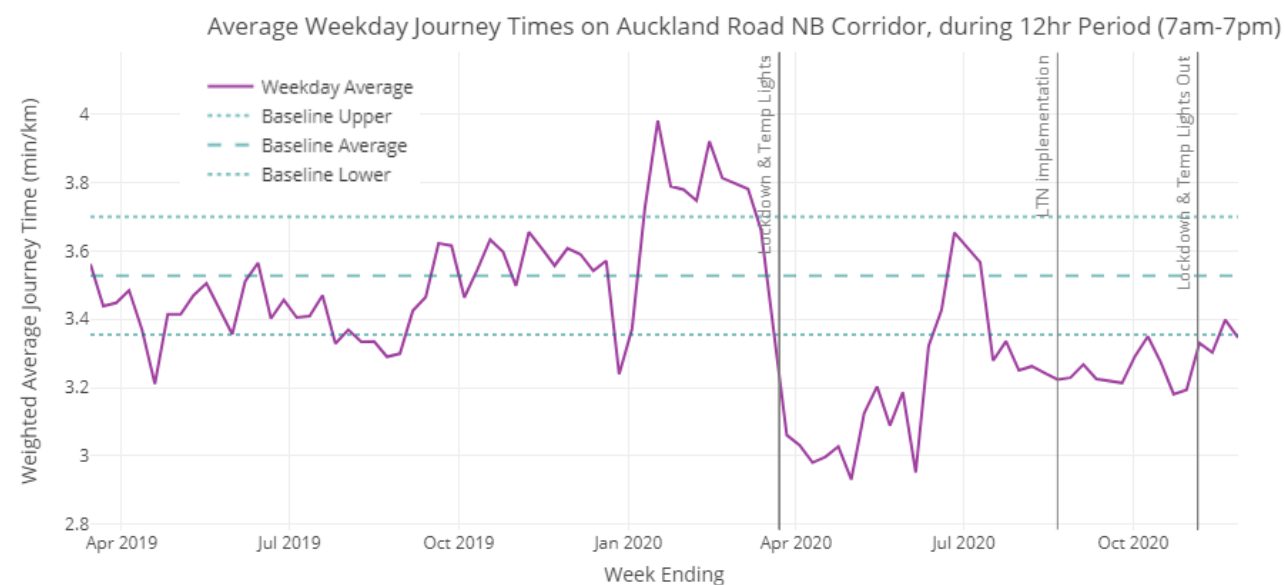
Journey times were **0.4 min/km (12%) higher** 7am-7pm W/E 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.

Journey times have decreased in both directions in recent weeks since the removal of the temp signals.



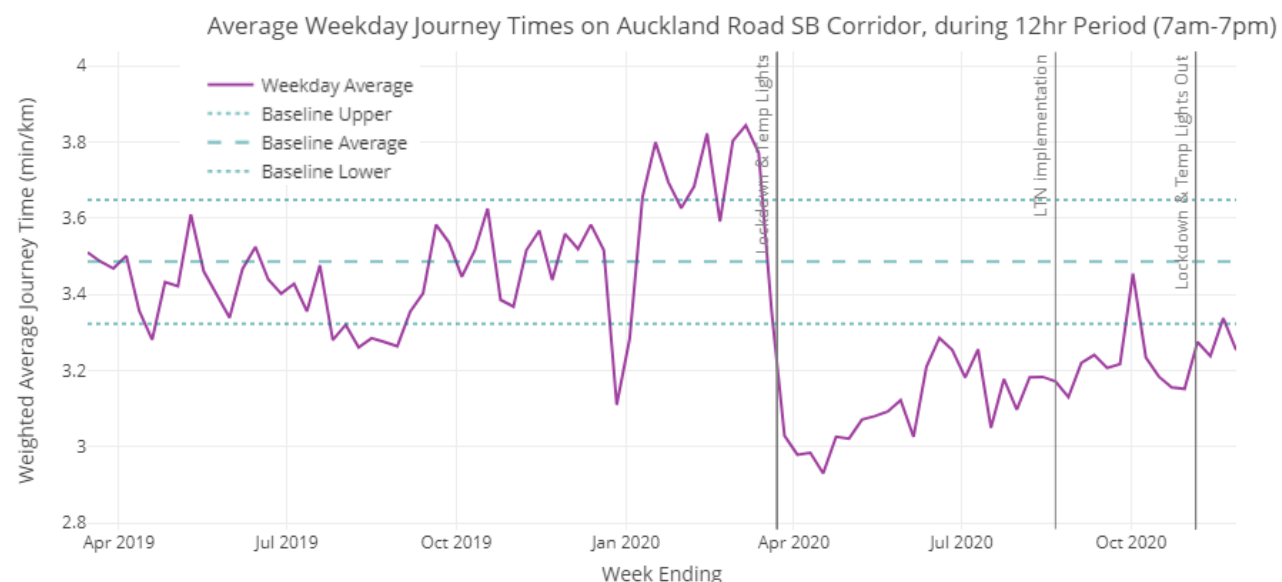
# Bus Journey Times: Auckland Road Corridor

The Auckland Road corridor has consistently shown reduced journey times compared to last year.



The **NB** journey times dropped with the first lockdown and remained low. Weekly averages have been consistently lower than the baseline mean, and often lower than the baseline lower threshold.

Journey times were **-0.2 min/km (-5%) lower** 7am-7pm W/E 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.



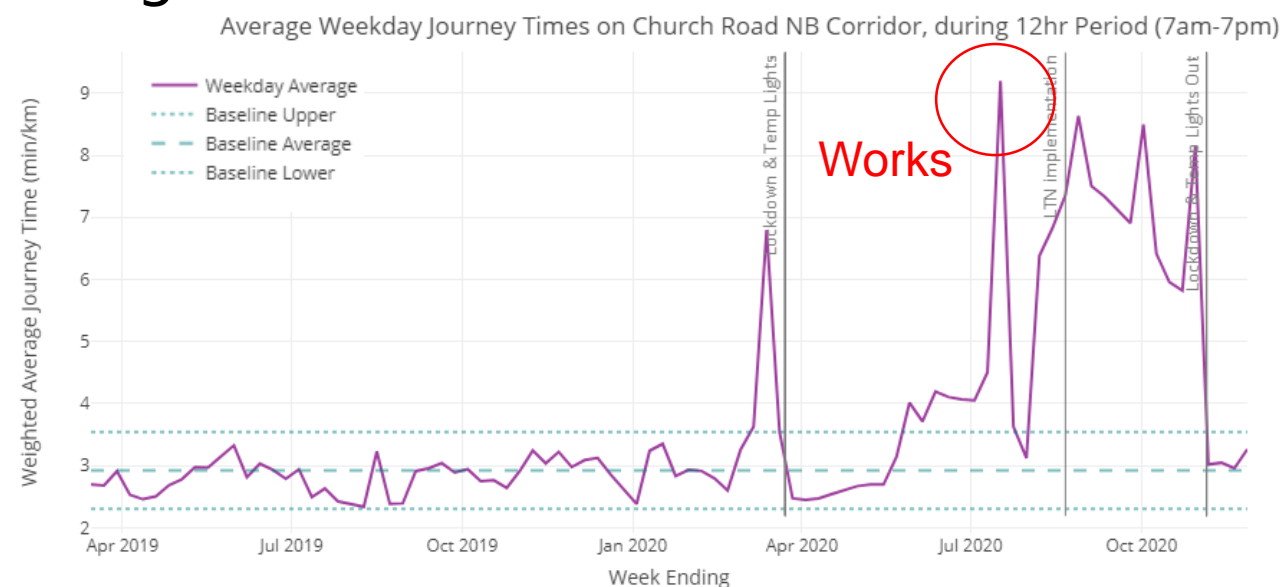
The **SB** journey times also dropped with the first lockdown and remained low. Weekly averages have been consistently lower than the baseline mean, and often lower than the baseline lower threshold.

Journey times were **-0.2 min/km (-7%) lower** 7am-7pm W/E 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.



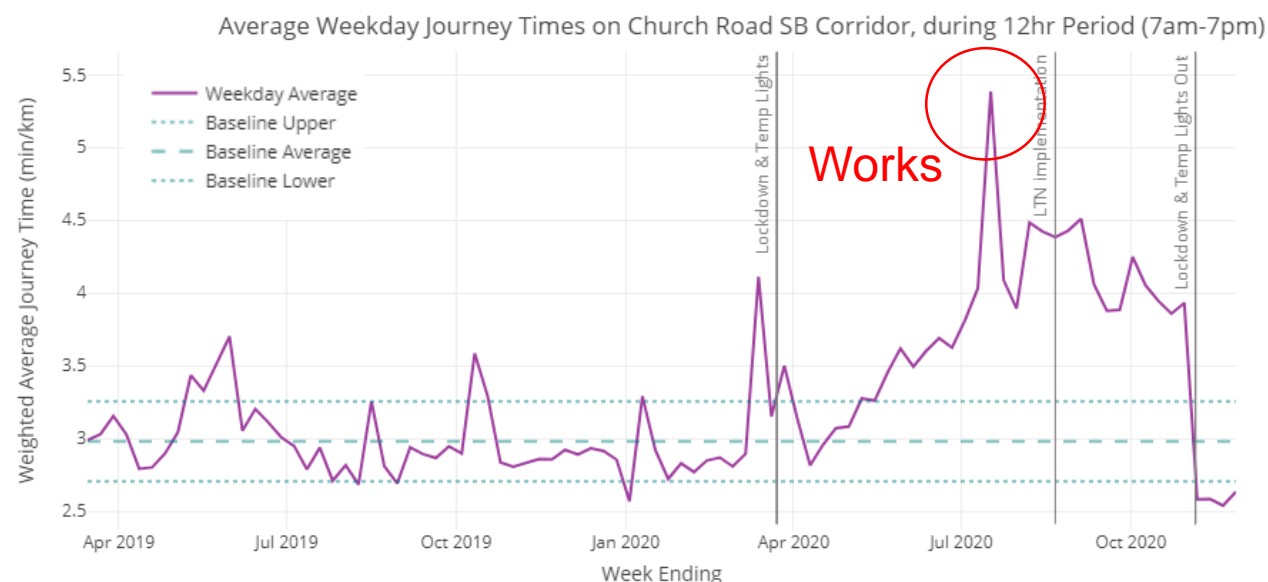
# Bus Journey Times: Church Road Corridor

The Church Road corridor has shown increased journey times both pre & post scheme implementation. These reduced with the 2<sup>nd</sup> lockdown / temp lights being removed.



The **NB** journey times increased from a few weeks pre-implementation and exceeded the threshold 11 of the 15 weeks.

Journey times were **0.3 min/km (12%) higher** 7am-7pm W/E 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.



The **SB** journey times have been increasing since the first lockdown and exceeded the threshold 11 of the 15 weeks.

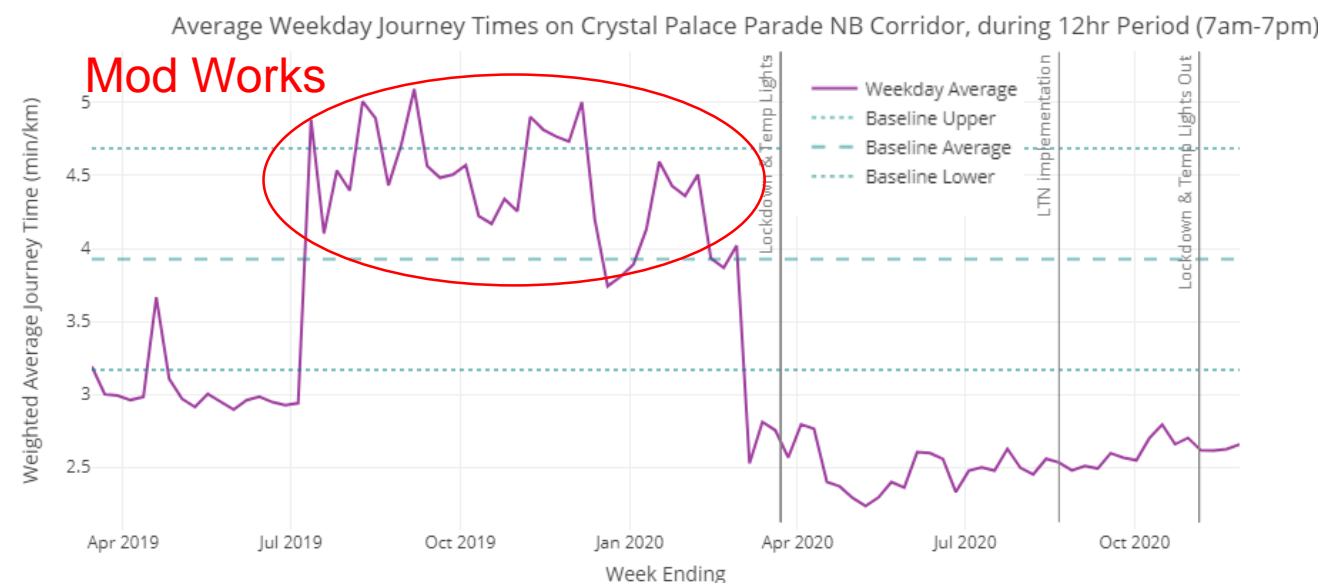
Journey times were **-0.3 min/km (-12%) lower** 7am-7pm W/E 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.

Journey times have decreased in both directions in recent weeks since the removal of the temporary signals.



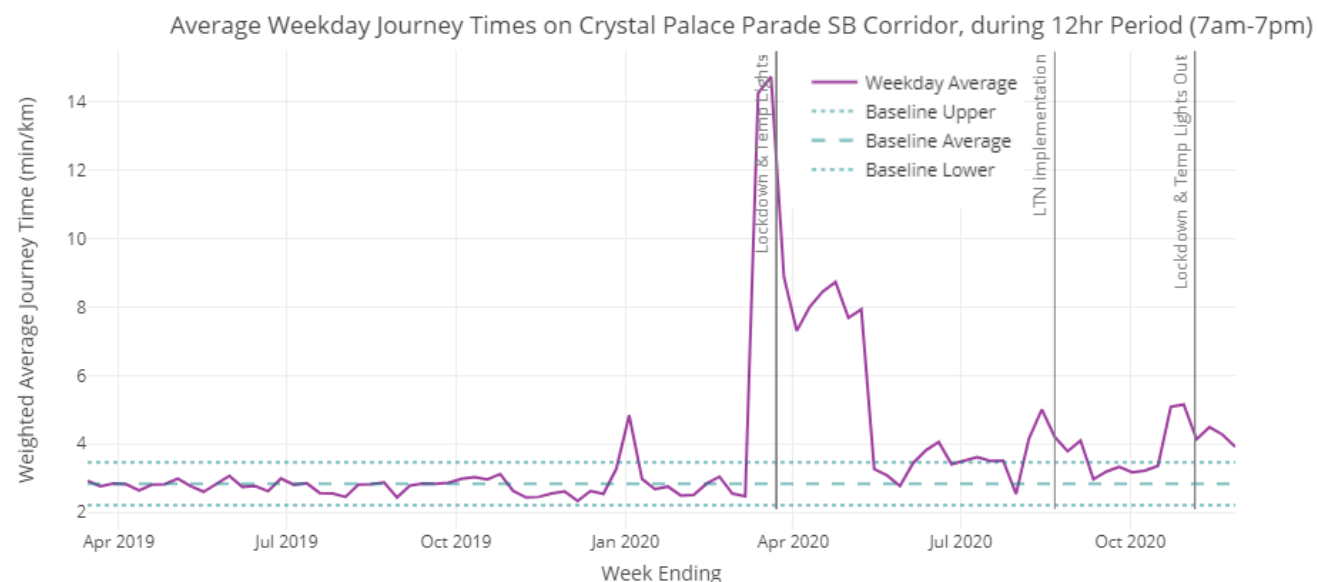
# Bus Journey Times: Crystal Palace Parade Corridor

The Crystal Palace corridor has shown increased journey times in the SB direction and reduced journey times in the NB direction.



The **NB** journey times did not increase post-implementation and weekly averages have consistently been below the baseline lower threshold.

Journey times were **-1.3 min/km (-32%) lower** 7am-7pm W/E 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.



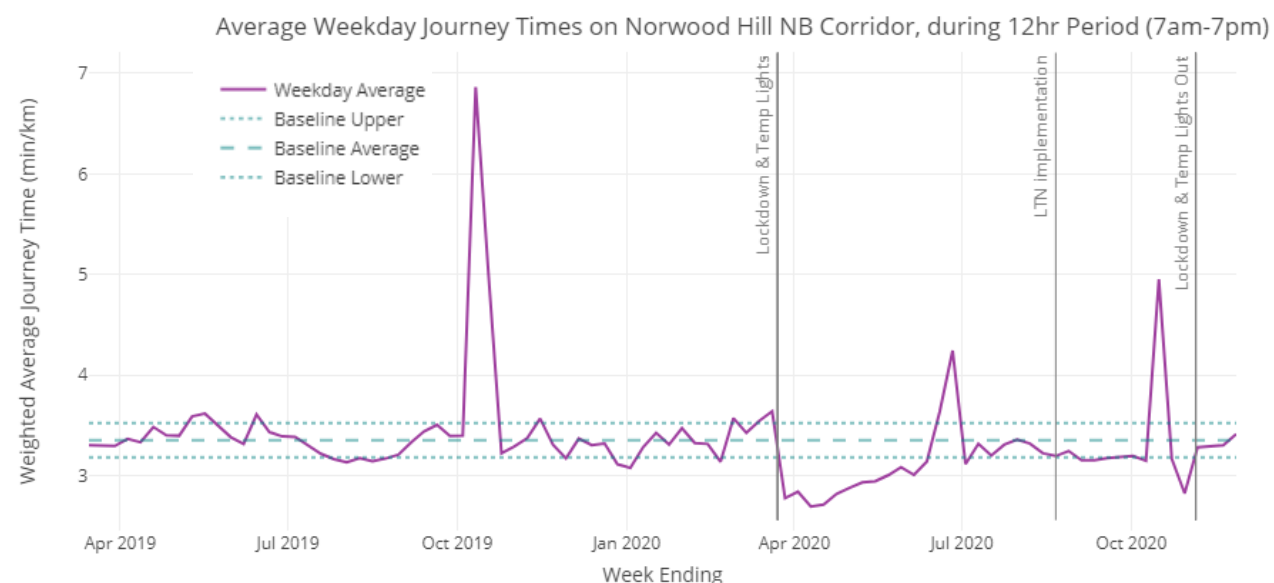
The **SB** journey times increased when the temp lights went in. They dropped in May but have still been exceeding the threshold 9 of the 15 weeks post-implementation.

Journey times were **1.1 min/km (38%) higher** 7am-7pm W/C 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.



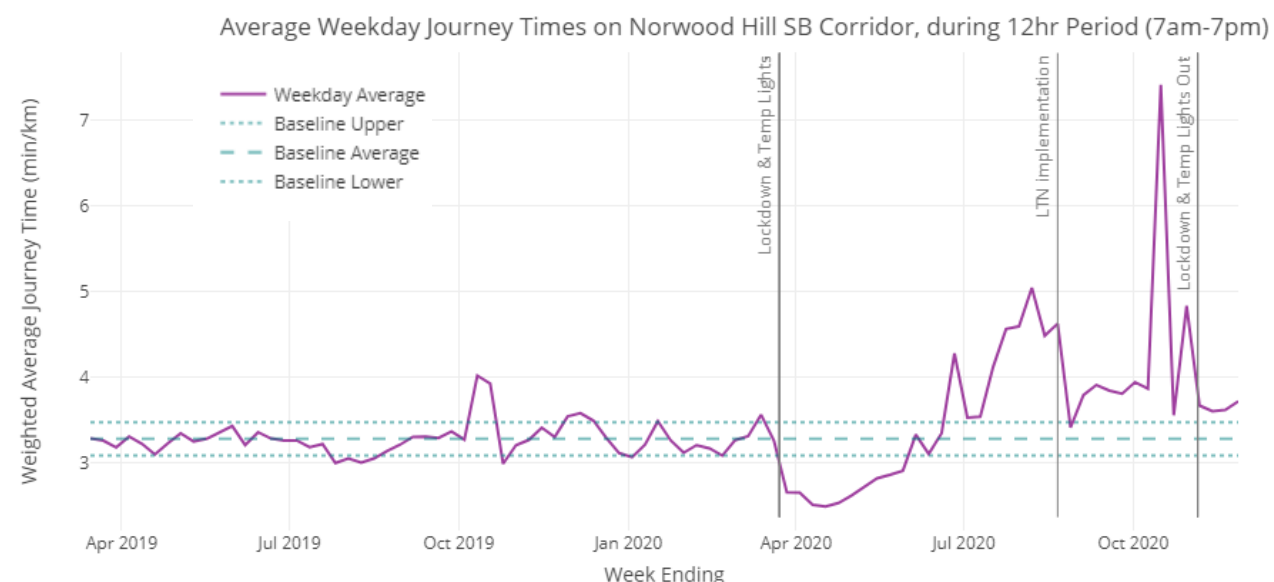
# Bus Journey Times: South Norwood Hill Corridor

The Norwood Hill corridor has shown increased journey times SB but level journey times with last year NB.



The **NB** journey times did not increase post-implementation and only exceeded the threshold once on W/E 16<sup>th</sup> Oct.

Journey times were **0.1 min/km (2%) higher** 7am-7pm W/E 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.



The **SB** journey times increased from a few weeks pre-implementation due to the gas works on Auckland Road, and continue to be high post-implementation. They exceeded the threshold 14 of the 15 weeks.

Journey times were **0.4 min/km (13%) higher** 7am-7pm W/E 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.

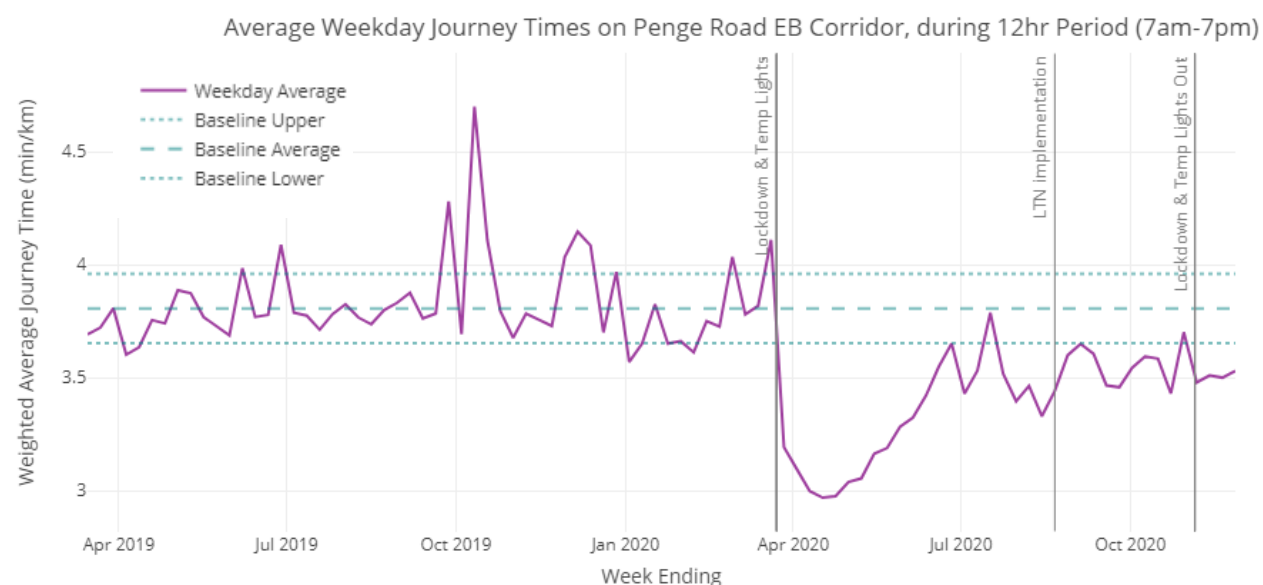


Journey times have decreased in recent weeks but remain above  
**EVERY JOURNEY MATTERS**



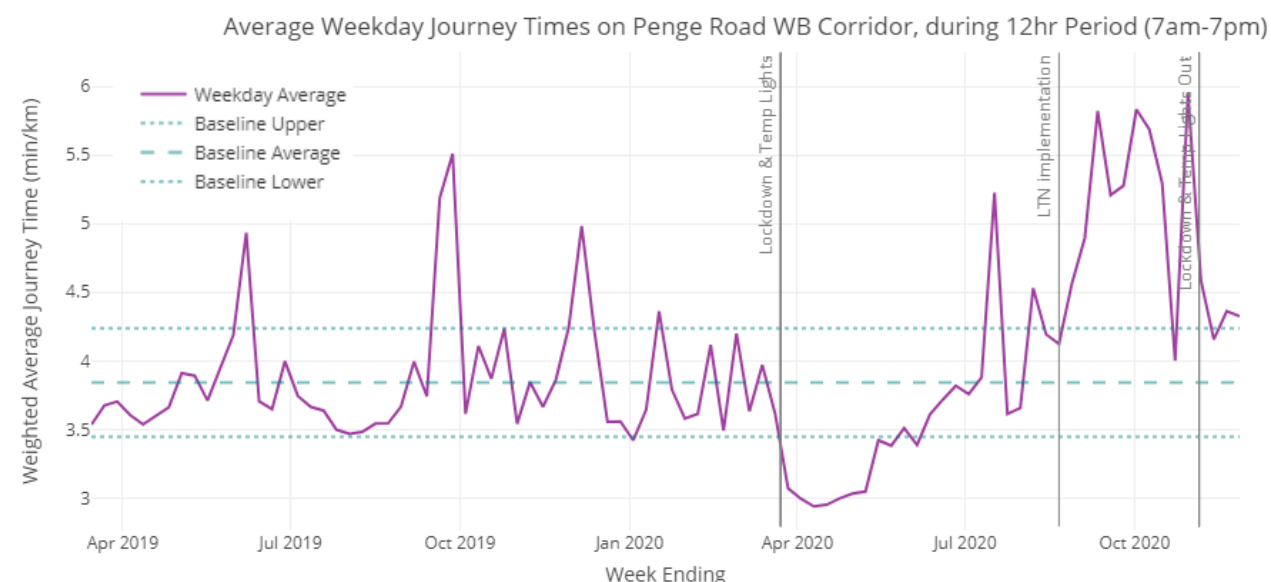
# Bus Journey Times: Penge Road Corridor

The Penge Road corridor has shown increased journey times in the WB direction but not in the EB direction.



The **EB** journey times did not increase post-implementation. Weekly averages have been consistently lower than the baseline mean, and often lower than the baseline lower threshold.

Journey times were **-0.3 min/km (-7%) lower** 7am-7pm W/E 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.



The **WB** journey times increased through lockdown and post-implementation and exceeded the threshold 11 of the 15 weeks. Journey times have decreased in recent weeks but remain above the upper threshold.

Journey times were **0.5 min/km**

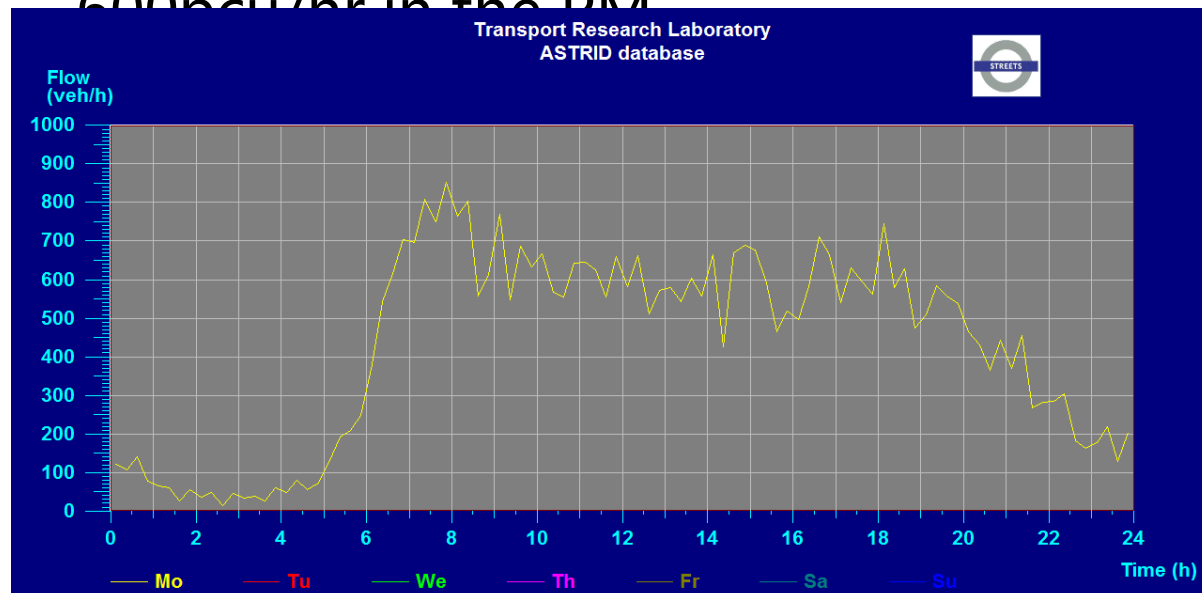
**(15%) higher** 7am-7pm W/E 27<sup>th</sup> Nov than the baseline (Mar 2019-Mar 2020) average.



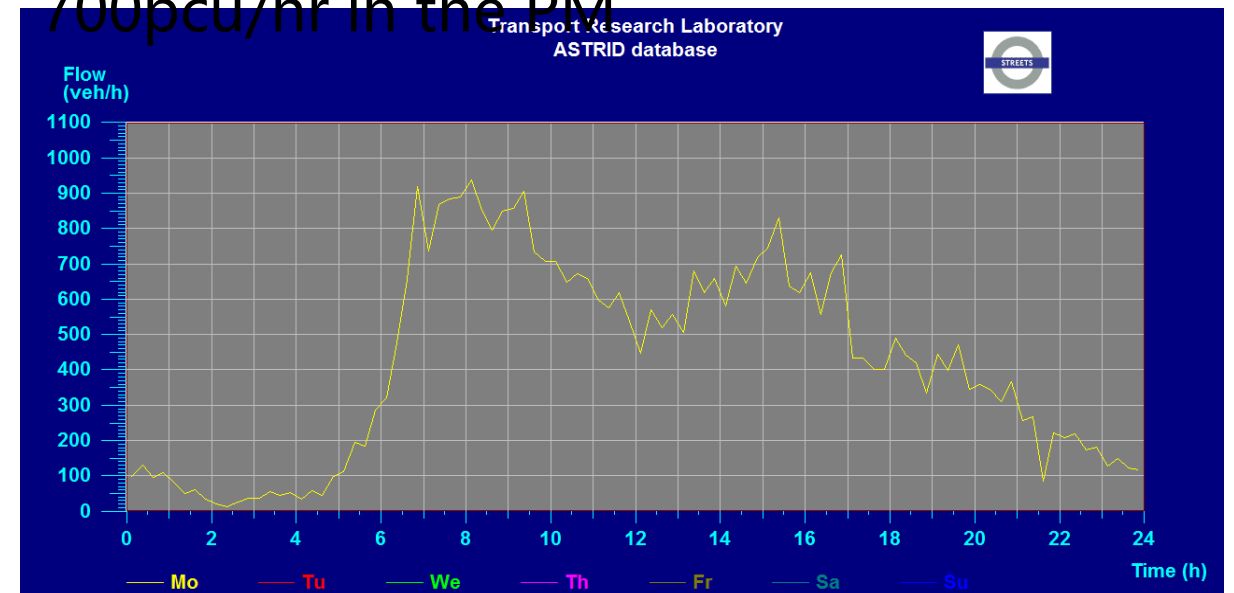
# Astrid Flow Data

SCOOT data was able show that more traffic flow was moving along Anerley Hill once the temp signals were removed.

**Oct 2020** – shows approx.  
800pcu/hr in the AM and  
600pcu/hr in the PM



**Nov 2020** – shows approx.  
900pcu/hr in the AM and  
700pcu/hr in the PM



# Appendices

The following slides give some detail on the methodology.

The graphs & figures included in the slides above can be found in the dashboard [here](#).



# Buses methodology

## Scope

- Weekly iBus data has been used for this analysis. This gives weekday (Mon-Fri) average journey times (excluding dwell times) by route, stop-to-stop link and peak.
- Data included is from W/E 15/03/19 to W/E 27/11/20. W/E 24/05/19 was excluded as there was missing data this week.
- 6 key corridors were studied (in both directions), as detailed on the first slide.

## Methodology

- The corridor averages shown are a weighted average across the journey times for all routes running along the corridor, based on the route frequency. This means the corridor average is skewed towards the higher frequency routes.
- The route level journey times are found by taking the total journey time across stop-to-stop links along the corridor and dividing by the length of these links, to give a min/km figure. This is what is then averaged across routes.
- Corridor average journey time trends have been plotted against thresholds. These thresholds are meant to represent "normal" journey times.
- Threshold values were found by taking the mean +/- 1 standard deviation, for the weekly corridor averages during the baseline period (11 March 2019 – 13 March 2020). This allows for a reasonable amount of week-to-week variation but gives a threshold above which journey times would be deemed above "normal".

