

THFC New Stadium i Concert Scenario Bus Analysis

Bus Capacity Assessment

⌘ The following note considers the forecast usage of the Local Bus services on the High Road associated with a Concert taking place at the expanded capacity Tottenham Hotspur FC Stadium. Two scenarios have been considered, one with a 55k venue capacity and one with a reduced 45k capacity.

⌘ Assumptions

⌘ Bus routes: 149, 259, 279, 349

⌘ Capacity per bus: 70 pax*

⌘ Timetables: TfL website June 2015

⌘ Background Demand: TfL BODS 2011 (factors applied to account for periods where BODS data is not available based on relative bus capacities at these times)

⌘ Post-Match period: road closure in the vicinity of the Stadium means that buses are not available for attendees for 30 minutes after the final whistle.

* Plated capacity is 87 people per bus. Based on TfL advice, this is reduced for planning purposes.

Capacity Considerations

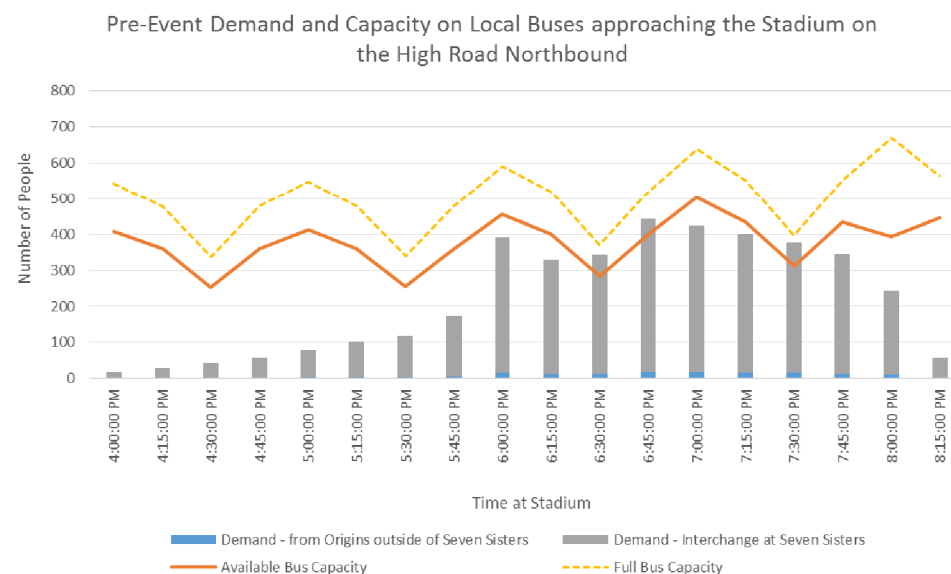
- ⚠ The reduction in bus capacity is applied to align with the TfL planning approach. We have also made assumptions related to non-Stadium related use of the bus network that draws on limited information.
- ⚠ It is our conjecture that in combination, this underplays the available capacity for attendees for a number of reasons:
 - ⓘ The reduction in planning capacity is to take account of service delays. As this is such a high-frequency corridor served by several routes, a 20% capacity reduction across all services may not be appropriate.
 - ⓘ Football spectators using these bus routes have been observed to accept high density loading for the short trip between the existing Stadium and Seven Sisters.
 - ⓘ The reference point for background demand assumptions is the PM commuter peak. Heavier loading on a per service basis during this period than others would lead to overstating background usage in other periods.
 - ⓘ Late night travellers are less likely to have buggies etc. and therefore the available capacity for concert-goers is increased.
- ⚠ Due to constraining layout, bus loading at Seven Sisters Station during the pre-event period would benefit from management measures to optimise boarding.



Concert 55K Scenario

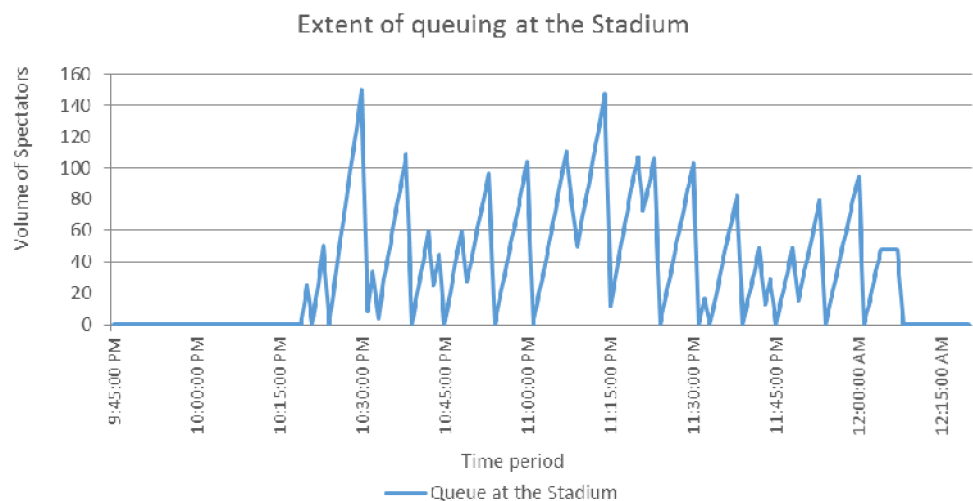
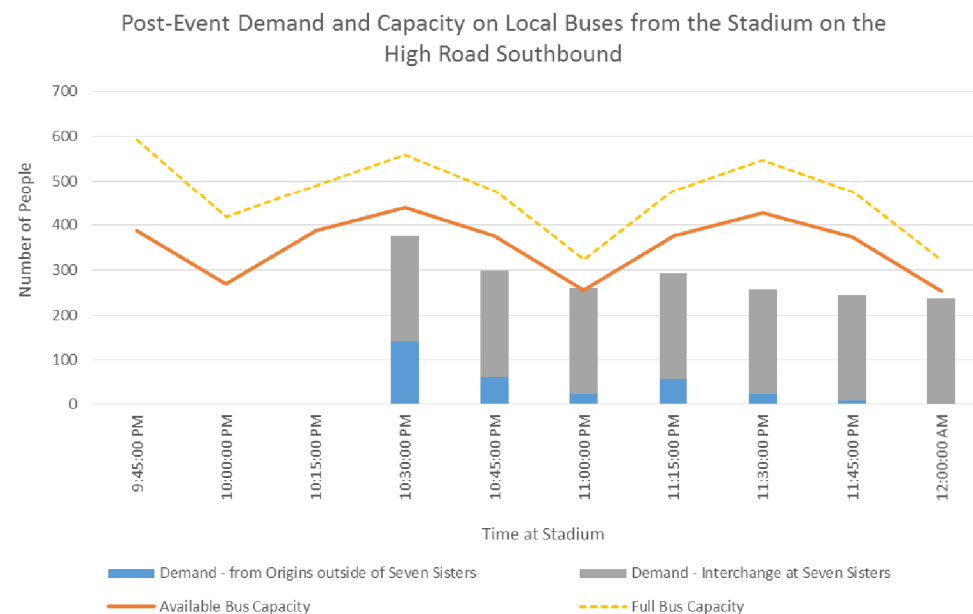
Arrivals & capacity analysis

- Northbound flows on the High Road have the option to use four bus routes.
- Available capacity is the total capacity minus background travel demand & the calculated available capacity across the pre-event period is shown as a line on the adjacent chart.
- Forecast attendees are mostly expected to interchange onto buses at Seven Sisters, although there are some spectators travelling on Local Buses from further south.
- This analysis suggests that there may be shortfalls in capacity between 18:30 and 19:30.
- However, if full plated capacity is used (and current matchday behaviour suggests that this could be the case), this capacity shortfall will be significantly reduced. It may be that interventions are put in place at Seven Sisters during this period to encourage efficient boarding and use of capacity.
- If there is a short-lived capacity shortfall, as it is more than 30 minutes before the event starts, attendees unable to board buses may choose to walk to the Stadium instead.



Departures & capacity analysis

- Southbound flows on the High Road have the option to use four bus routes.
- Available capacity is the total capacity minus background travel demand & the calculated available capacity across the post-event period is shown as a line on the adjacent chart.
- Forecast attendees are mostly expected to interchange at Seven Sisters station, although there are some spectators travelling further south on Local Buses.
- This analysis suggests that there will be no shortfalls in capacity. Everybody is able to board the first or second bus that is available to them.

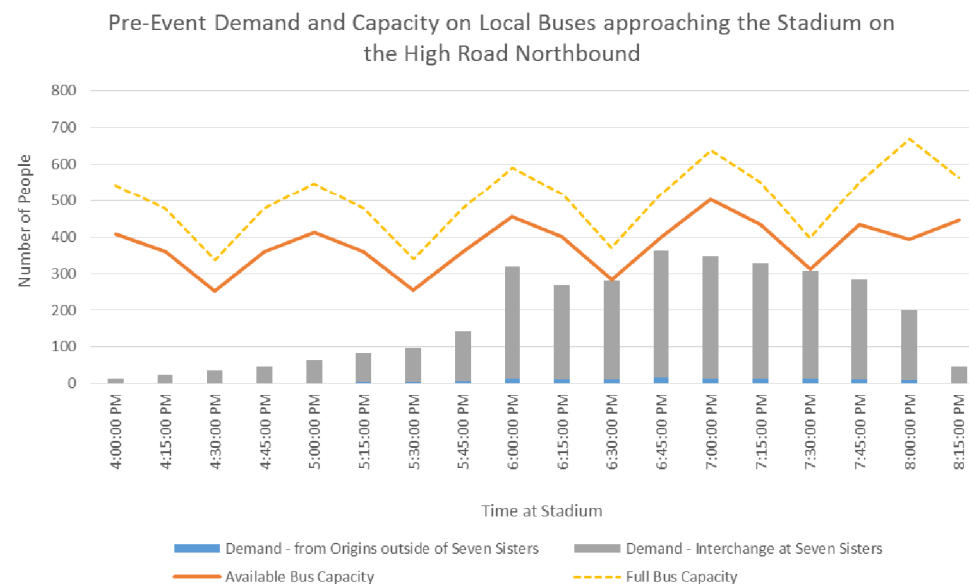




Concert 45K Scenario

Arrivals & capacity analysis

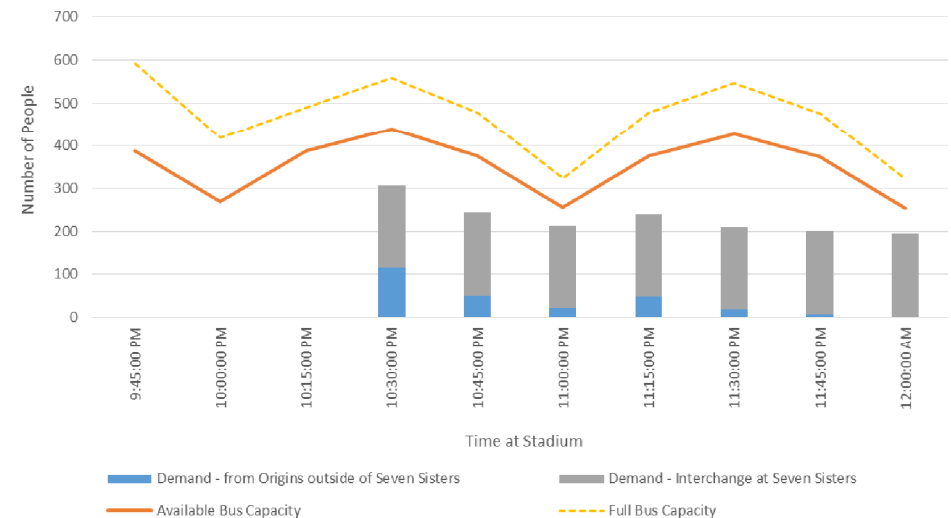
- Northbound flows on the High Road have the option to use four bus routes.
- Available capacity is the total capacity minus background travel demand & the calculated available capacity across the pre-match period is shown as a line on the adjacent chart.
- Forecast attendees are mostly expected to interchange onto buses at Seven Sisters, although there are some spectators travelling on Local Buses from further south.
- This analysis suggests that the available capacity is able to accommodate forecast flows, although it may be that interventions are put in place at Seven Sisters during this period to encourage efficient boarding and use of capacity.



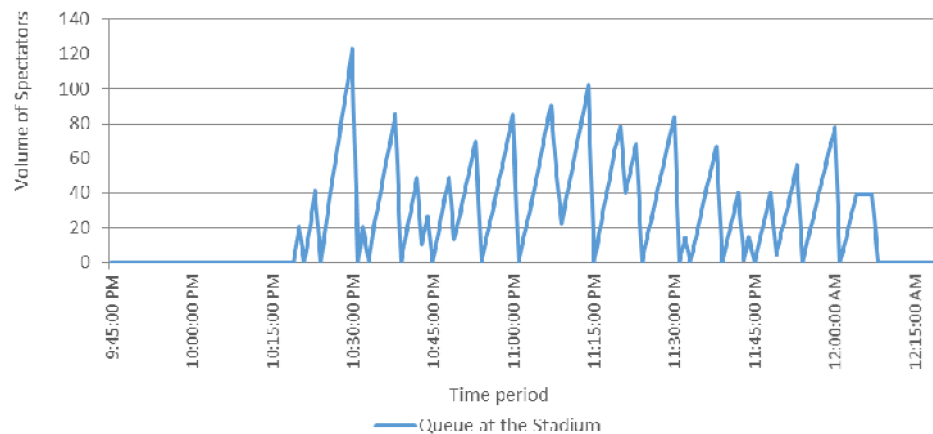
Departures i capacity analysis

- Southbound flows on the High Road have the option to use four bus routes.
- This analysis suggests that there will be no shortfalls in capacity. All those who wish to are able to board the first bus.

Post-Event Demand and Capacity on Local Buses from the Stadium on the High Road Southbound



Extent of queuing at the Stadium



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