

# High Level Assessment of Transport Impacts

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Project: Guildford Local Plan – Main Modifications to Local Plan following Examination in Public

Site: Increase Housing Delivery Trajectory- Potential Traffic Impacts

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## **1.0 Introduction**

- 1.1 MK Transport Planning has been providing highways and transport advice to Guildford Borough Council on the implications of proposed growth as set out in the submission Local Plan. MK Transport Planning appeared at the Examination in Public held in June/July 2018 in order to assist with answering the Inspector’s questions on transport matters on behalf of the Council.
- 1.2 During the hearing sessions the Inspector requested that the Council identify further housing sites to ensure a robust housing trajectory could be achieved without the need for a stepped approach to delivery. This primarily required additional supply to be made available within the first five years of the Plan.
- 1.3 Guildford Borough Council had previously commissioned Mott MacDonald to undertake an assessment of the impact of the submission Local Plan development trajectory on the key section of the A3 between the A31 interchange and the A320 Stoke interchange up to 2024, which is the earliest date that the A3 improvement would commence.
- 1.4 The Mott MacDonald assessment (GBC-LPSS-SD-040RevB) forms part of the Council’s evidence base and concludes that, with mitigation set out in the Infrastructure Schedule, the traffic from the Submission Local Plan allocations should not have a significant detrimental impact on the operation of the A3 through the Guildford urban area. Highways England’s Statement of Common Ground with Guildford Borough Council references this document, and much discussion occurred during the Examination on this matter (see for instance GBC-LPSS-014 in relation to the Council’s position on the A3 and the approach to the Road Investment Scheme) . The Inspector considered that it is reasonable to proceed with the Local Plan on the basis that the A3 Guildford Road Investment Strategy scheme is likely to

take place. He noted, however, that there are uncertainties in respect of the scheme and accordingly he asked the Council to set out the triggers for, and steps to be taken, in the event of the slippage of the scheme. A modification to Policy ID2 is proposed to address this and other risks related to the scheme (see [GBC-LPSS-022](#)).

- 1.5 This note is a high-level assessment of the potential impacts of the additional proposal sites on the critical section of the Strategic Road Network. It does not fully examine the traffic impacts of the additional sites and the revised trajectory included as Appendix O of the Submission Local Plan – Main Modifications on the Local Road Network. This would be assessed as part of a planning application with proportionate and necessary contributions made to transport schemes to either provide suitable access or as set out in the Infrastructure Schedule. It provides a high-level assessment of the likely additional peak hour traffic flows generated by the additional sites and a commentary on the likely routing of this traffic to provide reassurance that any impacts on the key section of the A3 through Guildford will be minimised and the residual impacts are unlikely to be severe. The note seeks to demonstrate that there is a reasonable prospect of these sites receiving planning consent and being constructed in the first five years of the Plan.

## 2.0 New Sites and Revisions to Early Delivery

### Garlick’s Arch

- 2.1 Garlick’s Arch, which is located with frontage to the A247 Clandon Road and B2215 Portsmouth Road in Send Marsh forms part of the submitted Local Plan, but during the Examination the site promoter and the Council agreed that the overall housing numbers could be increased from 400 to 550 dwellings, with earlier delivery of 50 units in the first five years. The changes in dwelling numbers compared to the submitted Local Plan is set out below:

Garlick’s Arch	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
Change in Housing Delivery	0	+15	+35	0	0

Table 2.1 – Proposed change to housing delivery in first five years compared with Submitted Local Plan

- 2.2 By reference to the Mott MacDonald assessment and Table 11 (GBC-LPSS-SD-040RevB), the following peak period trip rates have been used (note – these generic trip rates are used purely for this assessment and may vary as part of a Transport Assessment following agreement with the Highway Authorities):

Weekday Peak Period	Arrivals (per dwelling)	Departures (per dwelling)
AM peak 0800-0900 hours	0.117	0.360
PM Peak 1700-1800 hours	0.329	0.174

Table 2.2 – Mott MacDonald vehicle trip rates for Neighbourhood Centre (highest residential trip rates used)

2.3 Using the above trip rates and applying them to the additional housing proposed would result in the following cumulative additional vehicles generated from the Garlick’s Arch site during the first five years:

Garlick’s Arch	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
AM Peak					
Arrivals	0	+2	+6	+6	+6
Departures	0	+5	+18	+18	+18
PM Peak					
Arrivals	0	+5	+16	+16	+16
Departures	0	+3	+9	+9	+9

Table 2.3 – Cumulative increase in traffic flows from proposed change to housing delivery for the Garlick’s Arch site

2.4 In terms of the distribution of traffic, the site promoters presented information that they would have two vehicular access locations, one from A247 Clandon Road and the other from B2215 Portsmouth Road. Site traffic therefore has a number of route options and traffic is likely to disperse quickly from the site access. Although some development traffic will use the A3, as this site is at the northern end of the borough it is unlikely to significantly impact on the critical section of the A3 through Guildford as the higher departing flows in the morning peak are highly unlikely to use the critical northbound section of the A3 at Guildford and the A3 M25 J10 improvement is proposed to be completed by 2022/2023. In any event, the increase in traffic flow from the additional housing proposed is 24 vehicles per hour in the morning peak hour, which is less than one vehicle every two minutes at the site accesses. However, additional mitigation may be required on the local road network where impact will be at its highest.

### Aaron’s Hill

2.5 Aaron’s Hill, which is located to the south of Godalming is a new site, contiguous with a site owned by the site promoters which is located within Waverley and included in their adopted Local Plan. It is noted that the Waverley part of the site is proposed to be accessed from 19

and 21 Aarons Hill. However, any access to the site is likely to distribute all traffic onto Eashing Lane. The change in dwelling numbers compared to the submitted Local Plan is set out below:

<b>Aaron's Hill</b>	<b>2019/2020</b>	<b>2020/2021</b>	<b>2021/2022</b>	<b>2022/2023</b>	<b>2023/2024</b>
Change in Housing Delivery	0	+50	+50	+50	+50

Table 2.4 – Proposed change to housing delivery is first five years compared with Submitted Local Plan

2.6 Using the trip rates set out in Table 2.2 and applying them to the housing numbers proposed would result in the following increases in traffic flows from the Aaron's Hill site during the first five years:

<b>Aaron's Hill</b>	<b>2019/2020</b>	<b>2020/2021</b>	<b>2021/2022</b>	<b>2022/2023</b>	<b>2023/2024</b>
AM Peak Arrivals	0	+6	+12	+18	+23
AM Peak Departures	0	+18	+36	+54	+72
PM Peak Arrivals	0	+16	+33	+49	+66
PM Peak Departures	0	+9	+17	+26	+35

Table 2.5 – Cumulative increase in traffic flows from the inclusion of the Aaron's Hill site

2.7 In terms of the distribution of traffic, the site is located to the south of the borough where any access is likely to distribute all traffic onto Eashing Lane. From Eashing Lane, site traffic has a number of route options, including access to A3100 Portsmouth Road, providing connections to employment and schools in Godalming, Guildford and Milford to the south. Eashing Lane also has a southbound exit-only access from A3 and therefore the amount of traffic accessing the site from this direction is likely to be low and will generally affect evening peak periods, when arriving development traffic to the site is at its highest.

2.8 Although it is recognised that some development traffic will wish to use the A3, as this site is at the southern end of the borough it is unlikely to significantly impact on the critical section of the A3 through Guildford as there are alternative local routes to avoid the critical northbound section of the A3 at Guildford, with any traffic joining the A3 northbound doing south of the A31 junction with the A3, therefore not impacting significantly on the merging flows during morning peak periods. However, mitigation may be required on the local road network. The increase in traffic flow from the additional housing proposed is at its highest in 2023/2024 where during the morning peak hour there would be just over one vehicle

departing every minute and approximately one vehicle arriving every two to three minutes. Therefore, any increases in flows on the critical section of the A3 through Guildford are likely to be significantly less than these levels.

East of Glaziers Lane, Flexford

2.9 This is a new site, located east of Glaziers Lane and just to the north of the railway bridge. The changes in dwelling numbers compared to the submitted Local Plan is set out below:

Flexford site	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
Change in Housing Delivery	0	+35	+35	+35	0

Table 2.6 – Proposed change to housing delivery is first five years compared with Submitted Local Plan

2.10 Again, using the trip rates set out in Table 2.2 and applying them to the housing numbers proposed would result in the following increases in traffic flows from the Flexford site during the first five years:

Flexford site	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
AM Peak Arrivals	0	+4	+8	+12	+12
AM Peak Departures	0	+13	+25	+38	+38
PM Peak Arrivals	0	+12	+23	+35	+35
PM Peak Departures	0	+6	+12	+18	+18

Table 2.7 – Cumulative increase in traffic flows from the inclusion of the Flexford site

2.11 In terms of the distribution of traffic, the site will be accessed from Glaziers Lane. Glaziers Lane runs in a north-south direction providing access to A323 Guildford Road, which provides access to Guildford and using other main roads to Woking as well as providing alternative routes to the A3 north of the critical section of the A3 through Guildford.

2.12 Glaziers Lane also connects with Flexford Road and Westwood Lane which then connects to the Puttenham interchange with A31. During morning peak periods, traffic joining the A3 from the A31 eastbound adds to congestion and safety issues with the A3 at the critical section through Guildford. Queues commonly extend back along the A31 in the nearside lane due to the congestion on the A3 and this was a topic of discussion at the Examination in Public. Although traffic from this site has the potential to impact on the critical section of the

A3, given the small scale of development and the short-term alternative options to access the A3 at other junctions, the impacts on the SRN are unlikely to be severe, although mitigation may be required on the local road network.

2.13 The increase in traffic flow from the additional housing proposed is at its highest from 2022/2023 where during the morning peak hour there would be just over one vehicle departing every two minutes and approximately one vehicle arriving every five minutes. Therefore, any increases in flows on the critical section of the A3 through Guildford are likely to be significantly less than these levels.

Hornhatch Farm, Chilworth

2.14 This is a new site, located east and south of A248 New Road, Chilworth. The changes in dwelling numbers compared to the submitted Local Plan is set out below:

<b>Hornhatch Farm</b>	<b>2019/2020</b>	<b>2020/2021</b>	<b>2021/2022</b>	<b>2022/2023</b>	<b>2023/2024</b>
Change in Housing Delivery	0	+20	+20	+20	+20

Table 2.8 – Proposed change to housing delivery is first five years compared with Submitted Local Plan

2.15 Again, using the trip rates set out in Table 2.2 and applying them to the housing numbers proposed would result in the following increases in traffic flows from the Chilworth site during the first five years:

<b>Hornhatch Farm</b>	<b>2019/2020</b>	<b>2020/2021</b>	<b>2021/2022</b>	<b>2022/2023</b>	<b>2023/2024</b>
AM Peak Arrivals	0	+2	+5	+7	+9
AM Peak Departures	0	+7	+14	+22	+29
PM Peak Arrivals	0	+7	+13	+20	+26
PM Peak Departures	0	+3	+7	+10	+14

Table 2.9 – Cumulative increase in traffic flows from the inclusion of the Hornhatch Farm site

2.16 In terms of the distribution of traffic, the site will be accessed from A248 New Lane. A248 New Lane runs in an approximate east-west direction providing access to A25 Shere Road, which connects north towards north-east Guildford (A25), Woking (A247) and Leatherhead (A246) as well as interchanges with A3 to the north-east of Guildford, providing alternative

routes to the A3 north of the critical section of the A3 through Guildford. To the east the A25 provides a route through to Dorking and beyond.

2.17 To the west, A248 New Lane connects with A248 Kings Road and B2128 Kings Road. A248 Kings Road continues west connecting with A281 at Shalford. To the south, B2128 Kings Road provides access to Bramley and Cranleigh.

2.18 The site therefore has good connections to the main road network and traffic will be able to disperse quickly from the site. It is unlikely that any significant levels of development traffic will use the critical section of the A3 through Guildford, as traffic is likely to use alternative, quicker local main road network routes. However, mitigation may be required on the local road network.

2.19 The increase in traffic flow from the additional housing proposed is at its highest in 2023/2024 where during the morning peak hour there would be just under one vehicle departing every two minutes and approximately one vehicle arriving every six minutes. Therefore, any increases in flows on the critical section of the A3 through Guildford are likely to be significantly less than these levels.

Aldertons Farm, Send Marsh

2.20 This is a new site, located south of B368 Send Marsh Road, Send Marsh. The changes in dwelling numbers compared to the submitted Local Plan is set out below:

<b>Aldertons Farm</b>	<b>2019/2020</b>	<b>2020/2021</b>	<b>2021/2022</b>	<b>2022/2023</b>	<b>2023/2024</b>
Change in Housing Delivery	0	+30	+30	+30	+30

Table 2.10 – Proposed change to housing delivery is first five years compared with Submitted Local Plan

2.21 Again, using the trip rates set out in Table 2.2 and applying them to the housing numbers proposed would result in the following increases in traffic flows from the Send Marsh site during the first five years:

<b>Aldertons Farm</b>	<b>2019/2020</b>	<b>2020/2021</b>	<b>2021/2022</b>	<b>2022/2023</b>	<b>2023/2024</b>
AM Peak					
Arrivals	0	+4	+7	+11	+14
Departures	0	+11	+22	+32	+43
PM Peak					
Arrivals	0	+10	+20	+30	+39
Departures	0	+5	+10	+16	+21

Table 2.11 – Cumulative increase in traffic flows from the inclusion of the Aldertons Farm site

- 2.22 In terms of the distribution of traffic, the site will be accessed from B368 Send Marsh Road. Send Marsh Road runs in an approximate east-west direction providing access to the east to B2215 Portsmouth Road. To the west Send Marsh Road connects with A247 Send Road/Send Barns Lane at a traffic signal-controlled junction.
- 2.23 The site therefore has good connections to the main road network and traffic will be able to disperse quickly from the site. The site will have a similar distribution of traffic to the Garlick’s Arch site although further mitigation may be required on the local road network to address any impacts in particular through Send and Ripley.
- 2.24 Although some development traffic will use the A3, as this site is at the northern end of the borough it is unlikely to significantly impact on the critical section of the A3 through Guildford as the higher departing flows in the morning peak are highly unlikely to use the critical northbound section of the A3 at Guildford and the A3 M25 J10 improvement is proposed to be completed by 2022/2023.
- 2.25 The increase in traffic flow from the additional housing proposed is at its highest in 2023/2024 where during the morning peak hour there would be less than one vehicle departing every minute and approximately one vehicle arriving every four minutes. Therefore, any increases in flows on the critical section of the A3 through Guildford are likely to be insignificant from this site.

### **3.0 Summary**

- 3.1 This note provides a high-level assessment of the likely additional peak hour traffic flows generated by the additional sites and a commentary on the likely routing of this traffic to provide confidence that any impacts on the key section of the A3 through Guildford will be minimised and the residual impacts of this additional housing is unlikely to be severe.

- 3.2 Combining the traffic generation of all of the additional sites for 2023/2024, during the morning peak arrivals would be approximately 65 vehicles and departures 200 vehicles. During the evening peak arrivals would be approximately 183 vehicles and departures would be 97 vehicles. To put this into context, even if as much as 20% of development traffic generated by the additional sites used the A3, which is unlikely due to their locations, this would equate to less than one additional vehicle every minute during both peak periods. This is likely to be less than the daily fluctuation in traffic flows.
- 3.3 The note demonstrates that the traffic generation of these additional housing sites will be relatively small and that although local road network mitigation may be required to make them acceptable, due to their locations, the increase in traffic flows on the critical section of the A3 through Guildford will be very low. It is therefore concluded that highway related impacts are unlikely to prevent these sites receiving planning consent and therefore being able to be constructed as proposed in the first five years of the Plan.