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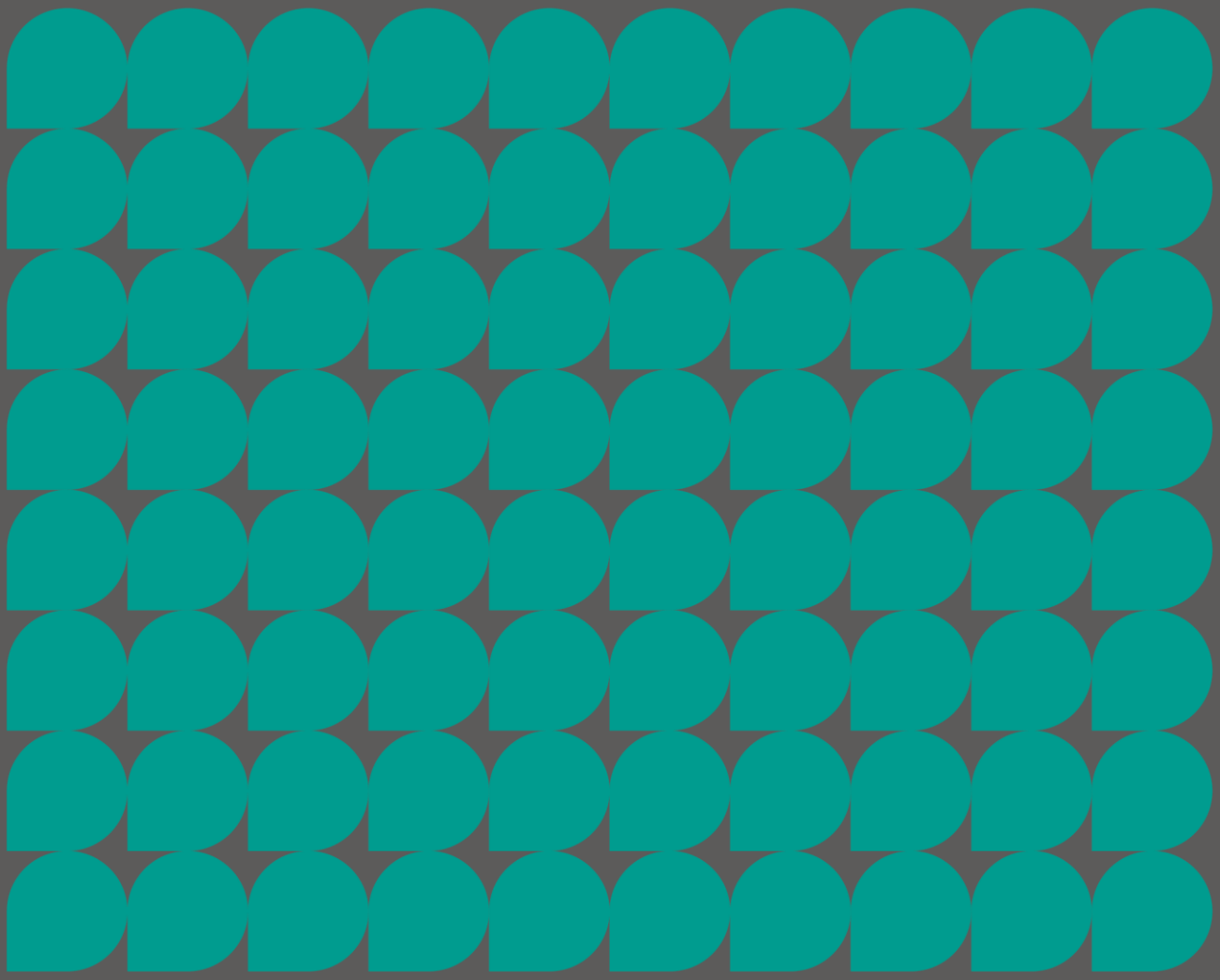
# Transport Locality Assessments Addendum

Bolton

Places for Everyone – July 2021



Review Note

# PLACES FOR EVERYONE

Bolton Council Locality Assessment UPDATE NOTE

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# 1. Executive Summary

1.1.1 The conclusions of each of the Bolton Locality Assessments, November 2020, remain robust. The 2020 assessments gave an initial indication that the traffic impacts of the allocations can be sufficiently mitigated and that the allocations are deliverable with the proposed mitigations in place.

1.1.2 These conclusions have been tested again, using updated modelling where necessary, to reflect recent changes – such as Stockport's withdrawal from GMSF. The review has not identified any significant changes and, on this basis, the conclusions arrived at in the 2020 Locality Assessments are still considered to be valid.

1.1.3 A scheme at Chequerbent roundabout is still to be agreed, however, an intervention at the junction is considered achievable which will mitigate the impact of PfE traffic.

1.1.4 However, further work and a full Transport Assessment will be necessary to ensure that potential mitigation measures are designed in more detail and remain appropriate as the allocations move through the planning process. The allocations will also need to be supported by continuing wider transport investment across Greater Manchester.

# 2. Introduction

## 2.1. Background

2.1.1. Since April 2019, SYSTRA Ltd has been leading, on behalf of the nine Places for Everyone Local Authorities and Transport for Greater Manchester, on the assessment and mitigation of the transport impacts of the development Allocations identified in the Places for Everyone joint development plan (formerly the Greater Manchester Spatial Framework). This work resulted in the publication of a series of Locality Assessments which:

- Forecast the pattern of traffic movement in 2025 and 2040 on the Greater Manchester transport network, both before and after the addition of traffic resulting from the delivery of the GMSF Allocations;
- Assessed the impact of that additional traffic on exiting transport infrastructure;
- Identified measures which would mitigate the impact of the additional traffic by examining enhancements to the public transport, active travel and highway network;
- Priced those enhancements on a consistent basis to support the evaluation of the viability of the Plan; and,
- On the basis of the above, confirmed whether or not the Allocation was appropriate from a transport perspective.

2.1.2. Following the withdrawal of Stockport Council from the original Greater Manchester Spatial Framework 2020 Joint Development Plan Document (Joint DPD) preparations, the nine remaining Local Authorities have agreed to use the GMSF as the basis for a new Places for Everyone Plan Joint DPD. This new plan been prepared on the basis that it will have 'substantially the same effect' as the GMSF. Full details of the processes, dates of consultations and key decision meetings are set out in the Topic Papers.

2.1.3. The "Transport Locality Assessment – Bolton – GMSF 2020" document formed part of the original evidence base which was assembled to support the policies and proposals in the GMSF 2020. Given the basis on which the PfE has been prepared, the GMSF

evidence base remains valid in relation to the PfE 2021. That said, the original Locality Assessment for Bolton has been reviewed in the light of the change from GMSF 2020 to the PfE2021 and this addendum report has been produced to identify any minor amendments. This addendum should therefore be read in conjunction with the "Transport Locality Assessment – Bolton – GMSF 2020" document made available in October 2020.

2.1.4. Since then a number of factors have necessitated a review of the conclusions of those Locality Assessments and revision or confirmations to those findings as appropriate. Those factors include:

- The removal of some Allocations from the Plan;
- Changes to the quantum of development proposed within some Allocations;
- Changes to the scale or type of transport supply (also known as transport mitigation schemes or interventions) proposed close to or within some Allocations;
- The withdrawal of Stockport Council and their associated Allocations from the Greater Manchester Spatial Framework; and,
- Modifications to the reference transport network to include newly committed schemes on the strategic road network (SRN).

2.1.5. These are factors which, taken together, may alter the pattern of traffic movements close to the remaining Allocations and impact on wider traffic movements across the conurbation. As such, it was considered necessary to check that the conclusions of the original assessments remain robust. This note sets out the processes behind, and conclusions of, the review for Bolton. This note identifies whether any of these changes are likely to significantly impact on the conclusions of the original assessments and where needed it sets out an updated technical assessment of the impact of the Allocations in Bolton on the operation of the transport network, and where necessary reviews and revises the transport infrastructure necessary to mitigate the impacts of the site.

## 2.2. Approach to the production of the Locality Assessment Addendum

2.2.1. Since the completion of the original Locality Assessments in September 2020, a number of factors have necessitated a review of the original conclusions. These include the decision of Stockport Council to withdraw from GMSF 2020, resulting in a number of Allocations and supporting infrastructure schemes being removed from the Plan. Other local authorities have chosen for various reasons to either remove Allocations or to make changes to the amount of development, the development type, its phasing, or the type of supporting infrastructure, all of which may have an impact on the operation of the Allocation and it impact it may generate on the transport network. As a result of this SYSTRA Ltd were asked to look again at the assumptions and conclusions of their original work to reassess its validity.

2.2.2. This work began with an update to the to the transport model to reflect the changes summarised above in order to obtain a more relevant forecast of likely trip generation and distribution in the two forecast years of 2025 and 2040.

2.2.3. At the outset of the review process it became clear that the level of detail required would vary between allocations. Some would require only a fairly high-level qualitative review while others would require a more detailed quantitative review. There are a number of reasons for this distinction; some of which are Allocation-specific and some related to regional / GM-wide changes.

2.2.4. In terms of the allocation-specific changes, the key considerations in adopting a quantitative review approach were as follows:

- A material change in development quantum as compared to that which was assessed in Summer 2020 (either an increase or a decrease)
- Proposed changes to the transport interventions serving an allocation made after the core assessment in Summer 2020
- Requested changes relating to the analytical approach; e.g modified trip generation rates, increased spatial extent of the study area, sensitivity tests of alternative networks etc.

2.2.5. In terms of the regional / GM-wide changes, the key considerations in adopting a quantitative review approach were as follows:

- The removal of all of the Stockport allocations and the associated reduction in transport demand; most directly relevant to the neighbouring districts
- Changes in the status of major transport infrastructure; for example, the confirmation of the Simister Island highway network improvements was expected to change traffic distribution and flow patterns in the NE area of GM

2.2.6. The outputs of the strategic modelling at the small number of sites which were considered suitable for a qualitative review were compared to the outputs from the previous round of modelling which was used to inform the production of the original Locality Assessment, in those instances where the outputs were considered to be comparable no further work was deemed necessary.

2.2.7. In the majority of cases however, changes between the model outputs indicated that a quantitative review would be necessary. The scope for this was discussed and agreed with officers of the relevant Local Authority and Transport for Greater Manchester before work began.

2.2.8. The outputs from the strategic modelling exercise were inputted into the local junction models developed for the original Locality Assessment work. Where the strategic modelling indicated that new junctions were likely to come under strain in either of the two future year scenarios, these were built using industry standard 'Linsig v3' or 'Junctions 9' software. Traffic signal information, including signal phasing and timings, and lane geometry (alignment, profile and lane position) was obtained from TfGM in order to replicate the junctions as closely as possible.

2.2.9. In a manner which replicates the method originally used for the Locality Assessment work, junction performance was tested in both the Reference and PfE Scenarios and, assessed to confirm if the mitigations originally developed for the Allocations remained

adequate, needed to be expanded, or in fact could be de-scoped or removed all together as a result of changes in traffic flow and distribution. As with the original work the objective here was to mitigate back to the Reference Case, rather than to reduce traffic flow back to the Base Case. This means that the mitigation may not result in the junction operating within capacity in the forecast year.

2.2.10. In a limited number of instances, the updated Locality Assessment work has indicated that traffic flow and distribution may be lower than originally forecast, but the decision has been made not to de-scope or remove a mitigation. This is in order to provide robustness and to future proof the PfE recommendations, recognising that further, more detailed work will be done on a site-by-site basis as part of the planning application process.

2.2.11. In addition to reviewing highways scheme, the non-highway and sustainable transport proposals were also reviewed. These included proposals for new or extended bus services, Metrolink extensions and cycling and walking. The transport evidence documents produced for the GMSF/PfE Plan refer to the Bee Network as Greater Manchester's walking and cycling network. Moving forward the Mayor's intention is for trams, buses, trains, taxis and private hire combined with walking and cycling in Greater Manchester to be branded under the terminology of the Bee Network.

2.2.12. Whilst this analysis considered primarily the local highway network, SYSTRA is undertaking a separate, parallel exercise in conjunction with TfGM and Highways England to examine wider impacts on the strategic road network (SRN). This parallel exercise is investigating cumulative PfE impacts on the SRN mainline links and is expected to deliver key findings in late Summer 2021. Any allocation-specific impacts, such as those occurring at SRN junctions, have been set out in the Locality Review documentation.

## 2.3. Conclusion

2.3.1. The Locality Assessment review exercise has confirmed the Transport Locality Assessment work published in October 2020 as robust in the light of recent changes and that the Allocations remain viable from a transport perspective. However, further work, including a full transport Assessment will need to be carried out on each Allocation as it comes forward for planning permission, which will ensure that the mitigation measure are revised in more detail and remain appropriate for the size and type of development.

2.3.2. This note uses the GMSF reference numbers of each of the allocations to link them to the original Locality Assessment documents. For information, the new reference numbers for the Places for Everyone Joint Plan are shown in the table below:

| Allocation | GMSF 2020 Reference | PfE 2021 Reference |
|---|---|---|
| Bewshill Farm | GMA4 | JPA4 |
| Chequerbent North | GMA5 | JPA5 |
| West of Wingates / M61 Junction 6 | GMA6 | JPA6 |

# 3. Changes since the publication of the Locality Assessment

## 3.1 Broad changes

3.1.1 The largest change to demand since the publication of the locality assessments has been the removal of the seven Stockport allocations from the plan. This has meant that a number of homes and employment allocations have been removed from the modelling work. Whilst the removal of potential developments sites is not considered to be insignificant, the peripheral location of Bolton to the north west (in relation to Stockport) is considered to be far enough away to have a negligible impact on the district's allocations.

## 3.2 Allocation specific changes

| Allocation | Change | Notes |
|---|---|---|
| GMA4 Bewshill Farm | Quantum: No changes<br><br>Infrastructure: No changes. | Minimal impact – wider model updates led to flow differences between 4th and 5th round modelling. Further assessment required at limited number of junctions to validate previous conclusions. |
| GMA5 Chequerbent North | Quantum: Reduction of approx. 8k sqm of employment at 2025<br><br>Infrastructure: No changes. | Minimal impact – wider model updates led to flow differences between 4th and 5th round modelling. Further assessment required at limited number |

| Allocation | Change | Notes |
|---|---|---|
| | | of junctions to validate previous conclusions. |
| GMA46 West of Wingates | Quantum: Reduction of 100k sqm of employment at 2025<br><br>Infrastructure: Improvement scheme at M61 Junction 5. | Moderate impact – wider model updates led to flow differences between 4th and 5th round modelling. Further assessment required at limited number of junctions to validate previous conclusions. |

### 3.3 Supporting interventions in Bolton

3.3.1 Bolton Council and TfGM have planned a number of improvements across Bolton which are intended to make it easier for people to travel sustainably. This includes elements of the Bee Network, a comprehensive cycling and walking network which covers all Districts within Greater Manchester. The overall 2040 5 Year Delivery Plan of strategic transport interventions that will support all allocations in Bolton is shown in Figure 1, and detail of the Bee Network in Bolton is shown in Figure 2.

**Figure 1. Bolton Delivery Plan**

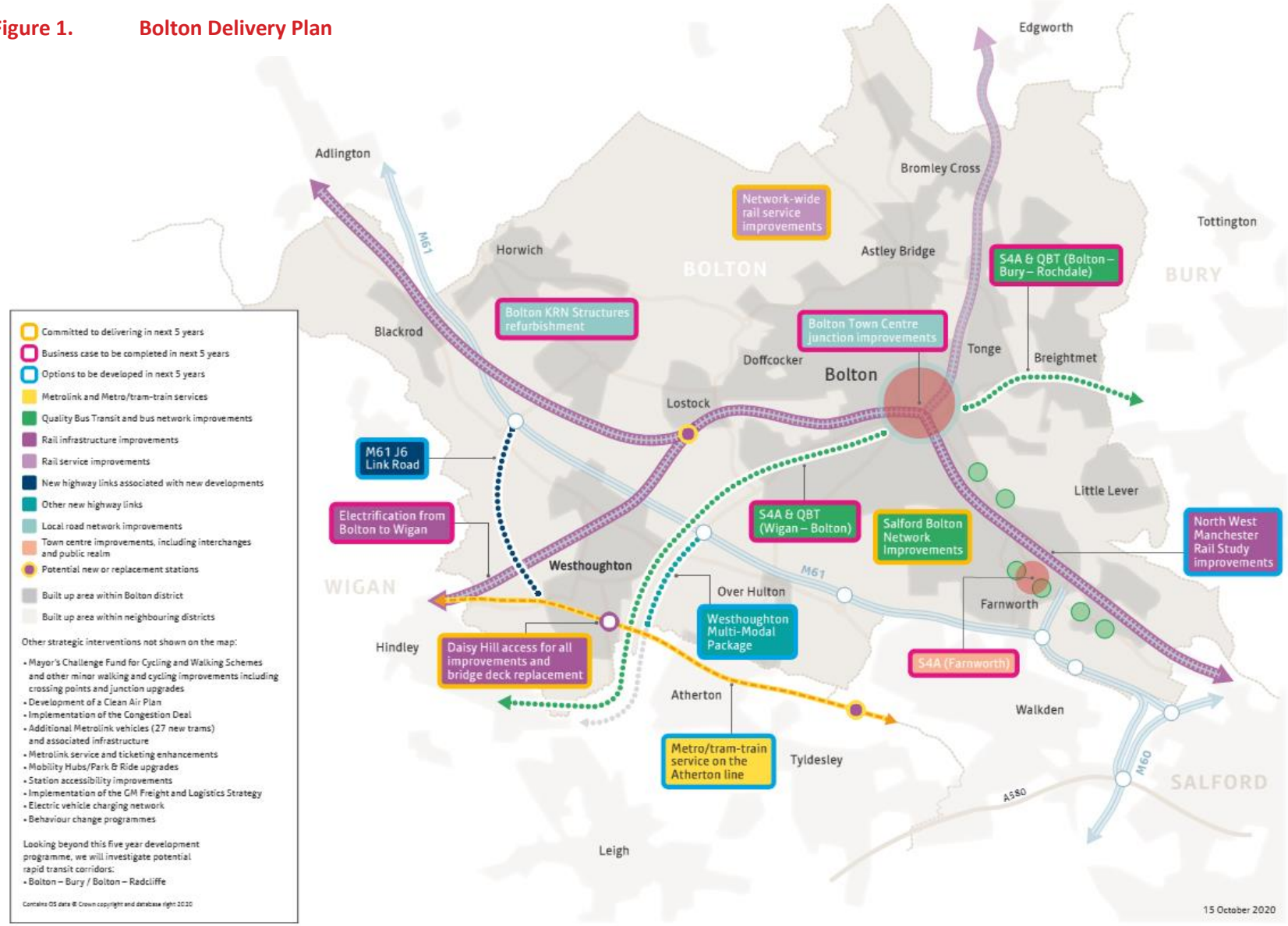
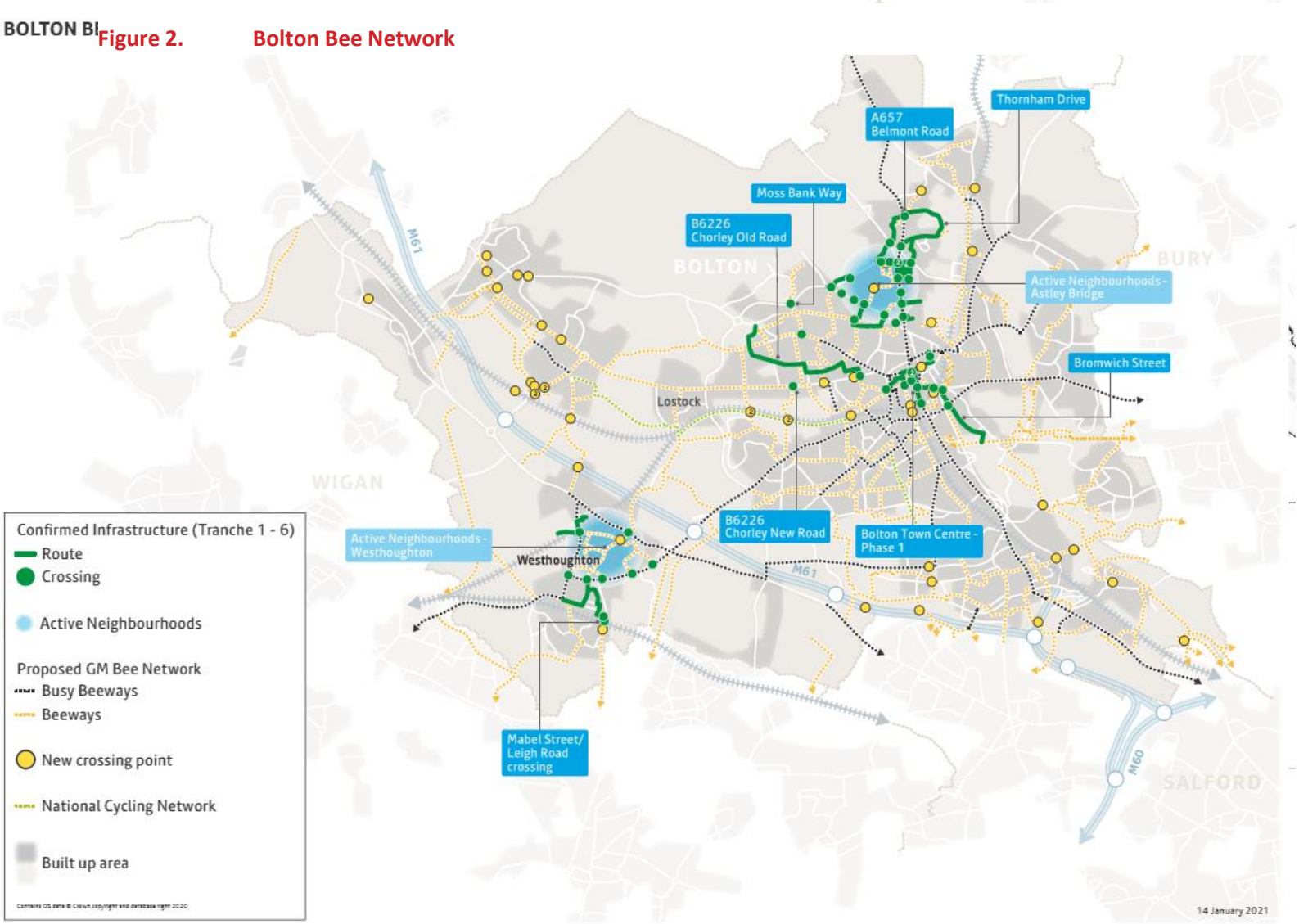


**Figure 2. Bolton Bee Network**



# 4. GMA4 Bewshill Farm

## 4.1 Changes to the quantum of development

4.1.1 There have been no changes to the quantum of development for GMA4 Bewshill Farm. Table 1 indicates the quantum of development for the allocation.

**Table 1. GMA4 Bewshill Farm development quantum**

| Development type | 2025 development quantum | 2040 development quantum |
|---|---|---|
| Houses | 0 | 0 |
| Apartments | 0 | 0 |
| Employment | 21,000sqm (as previous) | 21,000sqm (as previous) |
| **Total** | **21,000sqm** | **21,000sqm** |

4.1.2 With no changes to the quantum of development, allocation-specific impacts are not anticipated to change.

## 4.2 Transport infrastructure changes

4.2.1 The following interventions and the indicative timescales for their implementation (where applicable) were identified in the previous Locality Assessment.

**Site access**

- 3 arm priority junction within Logistics North (feeding on at Bridgewater Avenue/ Cutacre Lane roundabout)

**Necessary local mitigations**

- Between 2020 and 2025:

- Pedestrian and cycle facilities and connections to the existing network.
- Contribution towards a Local Link service.

## 4.3 Updated trip generation and distribution

4.3.1 Table 7. GMA5 Chequerbent North vehicular trip generationTable 2 shows the updated traffic generation for the GMA4 Bewshill Farm allocation.

**Table 2. GMA4 Bewshill Farm vehicular trip generation**

| | Am peak hour departures | Am peak hour arrivals | Pm peak hour departures | Pm peak hour arrivals |
|---|---|---|---|---|
| 2025 High scenario | 49 | 81 | 57 | 26 |
| 2040 High scenario | 49 | 81 | 57 | 26 |

4.3.2 It can be observed that the trip generation at 2025 is anticipated to be identical at 2040.

4.3.3 Table 3 below indicates the distribution of traffic to and from the allocation.

**Table 3. GMA4 Bewshill Farm traffic distribution**

| Route | AM peak hour | PM peak hour |
|---|---|---|
| A6 Salford Road (West) | 17% | 10% |
| M61 (West) | 20% | 20% |
| Watergate Lane | 2% | 5% |
| M61 (East) | 48% | 53% |
| A6 Salford Road (East) | 12% | 12% |

4.3.4 It can be seen that the major attractor/ generator is the M61 (East) which is to be expected for trips to and from the Regional Centre and wider strategic network. The M61 (West) and parallel A6 are also popular routes in both the AM and PM peaks.

## 4.4 Impact of allocation on the local road network

4.4.1 The assessment below is based on outputs from Greater Manchester's Variable Demand Model (GMVDM). While every effort has been made to accurately reflect the existing and planned road networks, it remains a strategic model. It may be the case that subsequent planning applications, utilizing more detailed traffic models / tools, may arrive at slightly different outcomes.

4.4.2 The expected changes in traffic routings and volumes in the vicinity of the GMA4 Bewshill Farm allocation as a result of changes to other allocations & wider network changes necessitate the reassessment of the following junction;

- A6 Salford Road/ Watergate Lane/ Bridgewater Avenue (Watergate Lane roundabout).

4.4.3 Table 4 presents the updated junction capacity assessments using flows from the latest high scenario run of the GMVDM, which accounts for the updated quantum of development and wider network changes. The table also includes columns indicating allocation – specific flows through the junction for AM and PM peaks respectively.

**Table 4. Results of Local Junction Capacity Analysis Before Mitigation – Year 2040**

| JUNCTION | 2040 ref case AM PEAK HOUR | 2040 ref case PM PEAK HOUR | 2040 high scenario AM PEAK HOUR | 2040 high scenario PM PEAK HOUR | Allocation flows AM PEAK HOUR | Allocation flows PM PEAK HOUR |
|---|---|---|---|---|---|---|
| A6 Salford Road/ Watergate Lane/ Bridgewater Avenue (Watergate Lane roundabout). | 68% | 69% | 73% | 77% | 130 | 83 |

4.4.4 It can be seen from Table 4 that the A6 Salford Road/ Watergate Lane/ Bridgewater Avenue (Watergate Lane roundabout) junction is anticipated to operate within capacity at 2040 in the reference case and high scenario. The results for the reference case and high scenario have increased from the previous round of modelling due to network updates, however, the junction is still forecast to operate within capacity.

## 4.5 Impact of the allocation on the strategic road network

4.5.1 The same caveats regarding the use of GMVDM model outputs, as set out in Section 4.4, also apply here. That is, it may be the case that subsequent planning applications, utilizing more detailed traffic models / tools, may arrive at slightly different outcomes.

4.5.2 The previous Locality Assessment found that the GMA4 Bewshill Farm allocation would not have a material impact on the operation of the SRN, however, Junction 4 of the M61 has been re-assessed to ensure network updates haven't adversely affected conclusions drawn from the previous round of work.

Table 5. Results of SRN Junction Capacity Analysis Before Mitigation – Year 2040

| JUNCTION | 2040 ref case AM PEAK HOUR | 2040 ref case PM PEAK HOUR | 2040 high scenario AM PEAK HOUR | 2040 high scenario PM PEAK HOUR | Allocation flows AM PEAK HOUR | Allocation flows PM PEAK HOUR |
|---|---|---|---|---|---|---|
| M61 Junction 4 | **82%** | **89%** | **78%** | **87%** | 93 | 65 |

4.5.3 Local Junction modelling was undertaken for Junction 4 of the M61. The assessment indicates that the Junction operates within capacity in the AM reference case and high scenario. In the PM peak, the Junction is approaching saturation but is still within capacity, as is the high scenario. An improvement scheme is included in the 5th round scenario at Junction 5 which wasn't included in the 4th round of modelling which attracts more traffic, explaining the dip in RFC in the high scenario compared with the reference case at Junction 4.

## 4.6 Review of interventions

4.6.1 As outlined above, the interventions identified in the previous round of work to support the GMA4 Bewshill Farm allocation are:

- Allocation access junction;
- Pedestrian and cycle facilities and connections to the existing network; and
- Contribution towards a Local Link service.

4.6.2 In terms of the allocation access junction, and the improvements proposed for walking, cycling and public transport modes, the changes to the wider network changes do not affect the requirement for these interventions or the indicative timescales proposed in the previous Locality Assessment.

## 4.7 Impact of the changes

4.7.1 There are no changes to the quantum of development for GMA4 Bewshill Farm that require the active mode and public transport interventions previously proposed to be amended. It should be noted that, since the publication of the Locality Assessments, an Active Travel Design Guide has been published by Greater Manchester Combined Authority and Transport for Greater Manchester. This Design Guide identifies design principles for the Bee Network that should be followed, and encompasses aspects such as segregated and shared infrastructure, crossing facilities and junction design. Any active mode interventions that are implemented in support of this allocation will need to follow this Design Guide.

## 4.8 GMA4 Bewshill Farm concluding remarks

4.8.1 The previous assessment gave an indication that the traffic impacts of the allocation are less than severe, and that the allocation is deliverable with the proposed mitigation measures in place.

4.8.2 With no changes to the development quantum and subsequent vehicular trip generation, no additional forms of intervention are considered necessary to support the allocation.

# 5. GMA5 Chequerbent North

## 5.1 Changes to the quantum of development

5.1.1 There have been no changes to the overall quantum of development for GMA5 Chequerbent North. There has been a slight adjustment in the phasing assumption whereby a reduced quantum is expected to be delivered by 2025. Table 6 indicates the quantum of development for the allocation.

**Table 6. GMA5 Chequerbent North development quantum**

| Development type | 2025 development quantum | 2040 development quantum |
|---|---|---|
| Houses | 0 | 0 |
| Apartments | 0 | 0 |
| Employment | 16,666sqm *(previously 25,000sqm)* | 25,000sqm *(as previous)* |
| **Total** | **16,666sqm** | **25,000sqm** |

5.1.2 The impact of the allocation on the network is not anticipated to have changed from the previous work undertaken as part of the Locality Assessment.

## 5.2 Transport infrastructure changes

5.2.1 The following interventions were identified in the previous Locality Assessment with an indicative delivery between 2020 and 2038.

**Site access**

- Access off A58 Snydale Way
- Access off A6 Manchester Road

**Necessary strategic interventions**

- Link Road (between Chequerbent roundabout and Platt Lane) or;
- Chequerbent roundabout signalisation

5.2.2 A definitive scheme for the Chequerbent Junction was not identified in the previous round of work, however, it was anticipated that a workable scheme at the Junction could be achieved.

**Supporting strategic interventions**

- Measures (highway connections and/or east-west public transport) delivered by policy GM Strat 8 supporting the Wigan Bolton growth corridor.
- Tram – train improvements - The GM2040 Transport Strategy Delivery Plan identifies improvements for Tram-train on the Wigan – Manchester line which will support the allocation

**Necessary local interventions**

- Footway and cycleway connectivity
- Travel Plan measures

**Supporting local interventions**

- Local Bee Network

**SRN Interventions**

- Improvement scheme at M61 Junction 5

## 5.3 Updated trip generation and distribution

5.3.1 Table 7 shows the updated traffic generation for the GMA5 Chequerbent North allocation.

**Table 7. GMA5 Chequerbent North vehicular trip generation**

| | AM peak hour departures | AM peak hour arrivals | PM peak hour departures | PM peak hour arrivals |
|---|---|---|---|---|
| 2025 High scenario | 39 | 65 | 50 | 21 |
| 2040 High scenario | 58 | 97 | 70 | 31 |

5.3.2 There are no changes with regards to development quantum at 2040, however, there is a reduction at 2025 (compared with the previous assessment). As a consequence, trip generation at 2025 is lower than previously modelled.

5.3.3 Table 8 below provides the distribution of traffic to and from the allocation.

**Table 8. GMA5 Chequerbent North traffic distribution**

| Route | AM peak hour | PM peak hour |
|---|---|---|
| M61 (West) | 14% | 10% |
| A58 (North) | 13% | 14% |
| M61 (East) | 49% | 43% |
| A6 (East) | 10% | 12% |
| Platt Lane (Atherton) | 6% | 10% |
| A58 (South) | 4% | 7% |
| A6 (North) | 5% | 3% |

5.3.4 It can be seen that the major attractor/ generator is the M61 (East) which is to be expected for trips to and from the Regional Centre and wider strategic network. The M61 (West) and A58 are also popular routes in both the AM and PM peaks.

## 5.4 Impact of allocation on the local road network

5.4.1 The assessment below is based on outputs from Greater Manchester's Variable Demand Model (GMVDM). While every effort has been made to accurately reflect the existing and planned road networks, it remains a strategic model. It may be the case that subsequent planning applications, utilizing more detailed traffic models / tools, may arrive at slightly different outcomes.

5.4.2 The expected changes in traffic routings and volumes in the vicinity of the GMA5 Chequerbent North allocation as a result of changes to other allocations necessitate the reassessment of the following junction;

- A6 Manchester Road /A58 Park Road /Snydale Way (Chequerbent Roundabout)

5.4.3 Table 9 presents the updated junction capacity assessments using flows from the latest high scenario run of the GMVDM, which accounts for the updated quantum of development.

**Table 9. Results of Local Junction Capacity Analysis Before Mitigation – Year 2040**

| JUNCTION | 2040 ref case AM PEAK HOUR | 2040 ref case PM PEAK HOUR | 2040 high scenario AM PEAK HOUR | 2040 high scenario PM PEAK HOUR | Allocation flows AM AM PEAK HOUR | Allocation flows AM PM PEAK HOUR |
|---|---|---|---|---|---|---|
| A6 Manchester Road /A58 Park Road /Snydale Way (Chequerbent Roundabout) | 129% | 169% | 151% | 151% | 66 | 69 |

5.4.4 It can be seen that Chequerbent roundabout is anticipated to operate significantly above capacity in 2040 in both the reference case and high scenarios without mitigation.

5.4.5 Mitigation options were considered in the previous round of work with no clear decision made on the form it would take. As with the previous round of work, mitigation has been tested in the form of signalisation at the roundabout with the results presented in Table 10 below.

**Table 10. Results of Local Junction Capacity Analysis After Mitigation – Year 2040**

| JUNCTION | 2040 ref case AM PEAK HOUR | 2040 ref case PM PEAK HOUR | 2040 high scenario AM PEAK HOUR | 2040 high scenario PM PEAK HOUR |
|---|---|---|---|---|
| A6 Manchester Road /A58 Park Road /Snydale Way (Chequerbent Roundabout) | 129% | 169% | 119% | 110% |

5.4.6 It can be seen that the situation in the high scenario is improved when compared with the reference case. Whilst this may not be the actual scheme on the ground, it does confirm that a workable scheme is achievable at the Junction.

5.4.7 Aside from committed development traffic, background growth and PfE allocations, a planning application was approved in 2020 by the Secretary of State for the Hulton Park development (subject to conditions) for 1000+ homes, a hotel and Championship Golf Course. It should be noted that the model does not include this development, however, further work is being undertaken by the developers Consultants to take account of the modelling work to date and factor in the impact of the Hulton Park development.

## 5.5 Impact of the allocation on the strategic road network

5.5.1 The same caveats regarding the use of GMVDM model outputs, as set out in Section 5.4, also apply here. That is, it may be the case that subsequent planning applications, utilizing more detailed traffic models / tools, may arrive at slightly different outcomes.

5.5.2 The previous Locality Assessment found that the GMA5 Chequerbent North allocation would not have a material impact on the operation of the SRN.

5.5.3 Given that there are no significant changes to the quantum of development for the allocation, and the negligible impact at the local road network junction outlined above, it is likely that the changes will not result in a material impact on the SRN and that the conclusions of the previous Locality Assessment remain valid.

## 5.6 Review of interventions

5.6.1 As outlined above, the interventions identified in the previous round of work to support the GMA5 Chequerbent North allocation are:

- Allocation access Junction off A58 Snydale Way and A6 Manchester Road
- Intervention at Chequerbent roundabout and at the M61 Junction 5
- Measures (highway connections and/or east-west public transport) delivered by policy GM Strat 8 supporting the Wigan Bolton growth corridor and Tram – Train improvements
- Permeable network for pedestrian and cyclist priority and Bee Network improvements as well as Travel Plan measures.

5.6.2 In terms of the interventions identified above, the changes to the quantum of development do not affect the requirement for these interventions or the indicative timescales proposed in the previous Locality Assessment.

## 5.7 Impact of the changes

5.7.1 The changes to the quantum of development set out above do not affect the need for the active mode and public transport interventions previously proposed. It should be noted that, since the publication of the Locality Assessments, an Active Travel Design Guide has been published by Greater Manchester Combined Authority and Transport for Greater Manchester. This Design Guide identifies design principles for the Bee Network that should be followed, and encompasses aspects such as segregated and shared infrastructure, crossing facilities and junction design. Any active mode

interventions that are implemented in support of this allocation will need to follow this Design Guide.

## 5.8 GMA5 Chequerbent North concluding remarks

5.8.1 The conclusions of the previous Locality Assessment are considered to remain valid. The previous assessment gave an indication that the allocation is suitable for allocation in the GMSF, however, further work is required to progress with a scheme at Chequerbent roundabout nonetheless, workable solutions are considered feasible.

5.8.2 The changes to the development quantum and subsequent vehicular trip generation are minimal, and would potentially have a less severe impact than previously identified, and no additional forms of intervention are considered necessary to support the allocation.

5.8.3 A planning application was approved in 2020 by the Secretary of State for the Hulton Park development (subject to conditions) for 1000+ homes, a hotel and Championship Golf Course. This development is situated in close proximity to the allocation and will have a bearing on the outcome with regards to mitigation at Chequerbent Roundabout. It should be noted that the model does not include this development, however, further work is being undertaken by the developers Consultants to take account of the modelling work to date and factor in the impact of the Hulton Park development.

# 6. GMA6 West of Wingates

## 6.1 Changes to the quantum of development

6.1.1 There have been no changes to the overall quantum of development for GMA6 West of Wingates. There has been a slight revision in the phasing assumptions whereby a reduced quantum is expected to be delivered by 2025.

6.1.2 Table 11 summarises the changes to the quantum of development for this allocation.

**Table 11. GMA6 West of Wingates development quantum**

| Development type | 2025 development quantum | 2040 development quantum |
|---|---|---|
| Houses | 0 | 0 |
| Apartments | 0 | 0 |
| Employment | 150,000 *(previously 250,000sqm)* | 440,000sqm (as previous) |
| **Total** | **150,000sqm (previously 250,000sqm)** | **440,000sqm (as previous)** |

6.1.3 The impact associated with the reduction in quantum for the allocation at 2025 is likely to be less severe than the impact previously forecast.

## 6.2 Transport infrastructure changes

6.2.1 A number of interventions were identified in the previous round of work to support the GMA6 West of Wingates allocation. The interventions identified and their indicative timescales are outlined below.

**Allocation access**

6.2.2 The allocation will benefit from accesses at the Wimberry Hill/ Chorley Road Junction and at the A6/ De Haviland Way Junction.

**Necessary strategic mitigations**

6.2.3 The following strategic intervention will be required by 2030 in order to deliver the allocation:

- Contribution towards Public Transport – either by establishing a Local Link service or potentially increasing bus service frequencies in area.

**Necessary local mitigations**

6.2.4 The local area will benefit from the following necessary local mitigation to support the allocation:

- Improvement schemes at the following Junctions;
  - Blackrod Road/Manchester Road
  - A6 De Havilland Way / A6 Chorley Road,
  - Link Road and Dicconson Lane Roundabout
  - Hall Lane/Bolton Road.
  - Mansell Way/ De Havilland Way
- Contribution towards cycle and pedestrian enhancement away from the Allocation.
- Implementation of a Travel Plan

**SRN Interventions**

6.2.5 Improvements will be required at Junction 6 of the M61.

## 6.3 Updated trip generation and distribution

6.3.1 Using the revised development quantum outlined in Table 11, the vehicular trips generated by the proposed development are set out in Table 12.

Table 12. GMA6 West of Wingates vehicular trip generation (high scenario)

| | AM peak hour departures | AM peak hour arrivals | PM peak hour departures | PM peak hour arrivals |
|---|---|---|---|---|
| 2025 high scenario | 348 | 580 | 437 | 187 |
| 2040 high scenario | 1021 | 1696 | 1198 | 548 |

6.3.2 The distribution of allocation trips onto the surrounding highway network is presented in Table 13.

Table 13. GMA6 West of Wingates traffic distribution

| Route | AM peak hour | PM peak hour |
|---|---|---|
| B5239 Bolton Road (West) | 18% | 19% |
| A6 Manchester Road (West) | 2% | 3% |
| M61 (West) | 9% | 7% |
| A6027 De Havilland Way | 9% | 10% |
| M61 (East) | 50% | 43% |
| A6 Chorley Road (East) | 11% | 18% |

6.3.3 It can be seen from Table 13 that the M61 in both the AM and PM peak hours is the most popular route for vehicles to and from the allocation. The B5239 Bolton Road attracts 18% of traffic in the AM peak and 19% in the PM peak carrying traffic to and from Wigan, Hindley, Aspull and beyond.

## 6.4 Impact of allocation on the local road network

6.4.1 The same caveats regarding the use of GMVDM model outputs, as set out in Section 6.4, also apply here. That is, it may be the case that subsequent planning applications, utilizing more detailed traffic models / tools, may arrive at slightly different outcomes.

6.4.2 The expected changes in traffic routings and volumes in the vicinity of the GMA6 West of Wingates allocation as a result of changes to other allocations necessitate the reassessment of the following junction;

- A6 Chorley Road/ Wimberry Hill Road
- A6 Manchester Road/ B5236 Church Street
- A6 Manchester Road /A58 Park Road/ Snydale Way (Chequerbent Roundabout)
- A676 Wigan Road/ A58 Beaumont Road
- A58 Beaumont Road/ Glengarth Drive

6.4.3 Table 14 presents the updated junction capacity assessments using flows from the latest high scenario run of the GMVDM, which accounts for the updated quantum of development.

**Table 14. Updated junction capacity assessments (June 2021)**

| JUNCTION | 2040 ref case AM PEAK HOUR | 2040 ref case PM PEAK HOUR | 2040 high scenario AM PEAK HOUR | 2040 high scenario PM PEAK HOUR | Allocation flows AM PEAK HOUR | Allocation flows PM PEAK HOUR |
|---|---|---|---|---|---|---|
| A6 Chorley Road/ Wimberry Hill Road | 88% | 95% | 87% | 101% | 314 | 316 |
| A6 Manchester Road/ B5236 Church Street | 69% | 95% | 84% | 93% | 295 | 308 |

| JUNCTION | 2040 ref case AM PEAK HOUR | 2040 ref case PM PEAK HOUR | 2040 high scenario AM PEAK HOUR | 2040 high scenario PM PEAK HOUR | Allocation flows AM PEAK HOUR | Allocation flows PM PEAK HOUR |
|---|---|---|---|---|---|---|
| A6 Manchester Road /A58 Park Road /Snydale Way (Chequerbent Roundabout) | 129% | 169% | 151% | 151% | 203 | 213 |
| A676 Wigan Road/ A58 Beaumont Road | 79% | 90% | 90% | 92% | 107 | 63 |
| A58 Beaumont Road/ Glengarth Road | 63% | 51% | 72% | 60% | 8 | 4 |

6.4.4 It can be seen that Chequerbent roundabout is anticipated to operate significantly above capacity in 2040 in both the reference case and high scenarios without mitigation.

6.4.5 Assessments of the other local junctions indicate that the forecast levels can be accommodated on the network with the exception of the A6 Chorley Road/ Wimberry Hill Road Junction which is slightly over capacity in the PM peak at 2040.

6.4.1 Mitigation options were considered in the previous round of work with no clear decision made on the form it would take at Chequerbent roundabout. As with the previous round of work, mitigation has been tested in the form of a signalisation scheme at the roundabout with the results presented in Table 15 below.

Table 15. Results of Local Junction Capacity Analysis After Mitigation – Year 2040

| JUNCTION | 2040 ref case AM PEAK HOUR | 2040 ref case PM PEAK HOUR | 2040 high scenario AM PEAK HOUR | 2040 high scenario PM PEAK HOUR |
|---|---|---|---|---|
| A6 Manchester Road /A58 Park Road /Snydale Way (Chequerbent Roundabout) | 129% | 169% | 119% | 110% |

6.4.2 It can be seen that the situation in the high scenario is improved when compared with the reference case. Whilst this may not be the actual scheme on the ground, it does show that a workable scheme is achievable at the Junction.

6.4.1 Aside from committed development traffic, background growth and PfE allocations, a planning application was approved in 2020 by the Secretary of State for the Hulton Park development (subject to conditions) for 1000+ homes, a hotel and Championship Golf Course. It should be noted that the model does not include this development, however further work is being undertaken by the developers Consultants to take account of the modelling work to date and factor in the impact of the Hulton Park development.

## 6.5 Impact of the allocation on the strategic road network

6.5.1 The previous Locality Assessment found that the GMA6 West of Wingates allocation would have an impact on the operation of the SRN at Junctions 5 and 6 of the M61. The allocation is located in close proximity to the SRN, with the majority of trips generated by the allocation likely to use Junction 6 of the M61 to access the wider SRN via the De Havilland Way/ Chorley Road Junction.

6.5.1 Junctions 5 and 6 of the M61 have been re-assessed to ensure network updates haven't adversely affected conclusions drawn from the previous round of work.

Table 16. Results of SRN Junction Capacity Analysis Before Mitigation – Year 2040

| JUNCTION | 2040 ref case AM PEAK HOUR | 2040 ref case PM PEAK HOUR | 2040 high scenario AM PEAK HOUR | 2040 high scenario PM PEAK HOUR | Allocation flows AM PEAK HOUR | Allocation flows PM PEAK HOUR |
|---|---|---|---|---|---|---|
| M61 Junction 5 | 127% | 148% | 128% | 102% | 268 | 185 |
| M61 Junction 6 | 86% | 98% | 83% | 88% | 1814 | 986 |

6.5.2 Local Junction modelling was undertaken for Junctions 5 and 6 of the M61. The assessment indicates that Junction 6 operates within capacity in all scenarios. An improvement scheme is included in the 5th round scenario at Junction 5 which wasn't included in the 4th round of modelling which attracts more traffic, explaining the dip in RFC in the high scenario compared with the reference case at Junction 6.

6.5.3 Conversely, the situation at Junction 5 shows that the Junction in the reference case and high scenarios is over capacity at 2040. The previous modelling work showed that the Junction was approaching saturation in the reference case with PfE development traffic pushing the Junction over capacity. Changes to the highway network and subsequent routing of traffic are largely responsible for these changes, however, the introduction of the mitigation scheme in the 'high scenario' sees an improvement in the PM peak and a negligible difference in the AM peak.

6.5.1 The improvement scheme at Junction 5 includes the widening of the A58 Snydale Way and A58 Wigan Road approaches as well as widening of the circulatory carriageway to the south west and north west sections of the Junction.

## 6.6 Review of interventions

6.6.1 As outlined above, the interventions identified in the previous round of work to support the GMA6 West of Wingates allocation are:

- Allocation access Junctions at Wimberry Hill/ Chorley Road and at A6/ De Haviland Way Junctions
- Public Transport contributions
- Improvements at Blackrod Road/Manchester Road, A6 De Haviland Way/ A6 Chorley Road, Hall Lane/ Bolton Road and Mansell Way/ De Havilland Way Junctions.
- Introduction of Link Road from allocation to De Haviland Way Junction and roundabout at Dicconson Lane.
- Improvement scheme at Junction 5 of the M61.
- Contribution towards cycle and pedestrian enhancement away from the Allocation as well as Public Transport.
- Implementation of a Travel Plan.

6.6.2 In terms of the allocation access junction, and the improvements proposed for walking, cycling and public transport modes, the changes to the quantum of development do not affect the requirement for these interventions or the indicative timescales proposed in the previous Locality Assessment.

## 6.7 Impact of the changes

6.7.1 The changes to the quantum of development set out above do not affect the need for the active mode and public transport interventions previously proposed. It should be noted that, since the publication of the Locality Assessments, an Active Travel Design Guide has been published by Greater Manchester Combined Authority and Transport for Greater Manchester. This Design Guide identifies design principles for the Bee Network that should be followed, and encompasses aspects such as segregated and shared infrastructure, crossing facilities and junction design. Any active mode

interventions that are implemented in support of this allocation will need to follow this Design Guide.

## 6.8 GMA6 West of Wingates concluding remarks

6.8.1 The conclusions of the previous Locality Assessment are considered to remain valid. The previous assessment gave an indication that the traffic impacts of the allocation are less than severe, and that the allocation is deliverable with the proposed mitigation measures in place. Further work is required to progress with a scheme at Chequerbent roundabout, however, workable solutions are considered feasible.

6.8.2 Further work will be required in parallel with Highways England to ensure that the mitigation scheme proposed for Junction 5 of the M61 and A6 De Haviland Way/ A6 Chorley Road (impacting M61 Junction 6) can be accommodated and delivered.

# 7. Overall Conclusion

7.1.1 Following a further round of modelling work, a number of junctions have been re-assessed to check the validity of conclusions reached in the previously submitted Locality Assessment. For the Bolton allocations, the updated assessments have not identified any significant changes and on this basis, the conclusions arrived at in the Locality Assessments are still considered to be valid.

| APPROVAL | | | | | |
|---|---|---|---|---|---|
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