

Subject Gatwick Green and Impact on R2 Scheme

Date June 2021

Job No/Ref 279019-10

Gatwick Airport Limited (GAL)

Review of Gatwick Green and Impact on Gatwick Airport Runway 2 (R2) Scheme

Ove Arup & Partners Limited (“Arup”) has been appointed by Gatwick Airport Limited (GAL) to review the proposed Gatwick Green development as set out in the Draft Crawley Borough Local Plan. The Draft Crawley Borough Local Plan 2021-2037 (Submission Publication Consultation) seeks to revise the currently adopted Crawley 2030 Local Plan.

This note outlines the key concerns with the proposed land allocation for Gatwick Green as a Strategic Employment Location (Policy EC4), and the resulting impact of the reduced Safeguarded Land for Second Runway (Policy GAT2).

Paragraph 9.53 of the Draft Local Plan states:

“...land at Gatwick Green does not form part of the land take that would be required to accommodate a southern runway and the diversion of the A23, and is shown in the Gatwick Airport Master Plan as being utilised for a large area of surface car parking. The council does not consider parking to represent an efficient use of the site, particularly given the significant employment needs of Crawley borough, and is of the view that the airport could accommodate parking more efficiently through decked parking and other efficiency measures, should it be demonstrated that additional on-airport parking is required having regard to the airport’s surface access obligations stated in the S106 legal agreement. Therefore, the Local Plan retains safeguarding but amends its boundary to exclude land to the east of Balcombe Road and south of the M23 spur, which represents the only site within Crawley that can be allocated for strategic employment growth without prejudicing the possible delivery of a southern runway at Gatwick Airport.”

The allocation of Gatwick Green is therefore based on the assumption that the car parking for Gatwick Airport Master Plan for Runway 2 (R2) could be provided more efficiently and the allocation of Gatwick Green would therefore not prejudice the ability of delivering the R2 scheme. Feasibility work has therefore been undertaken to understand the impact of Gatwick Green on R2 car parking.

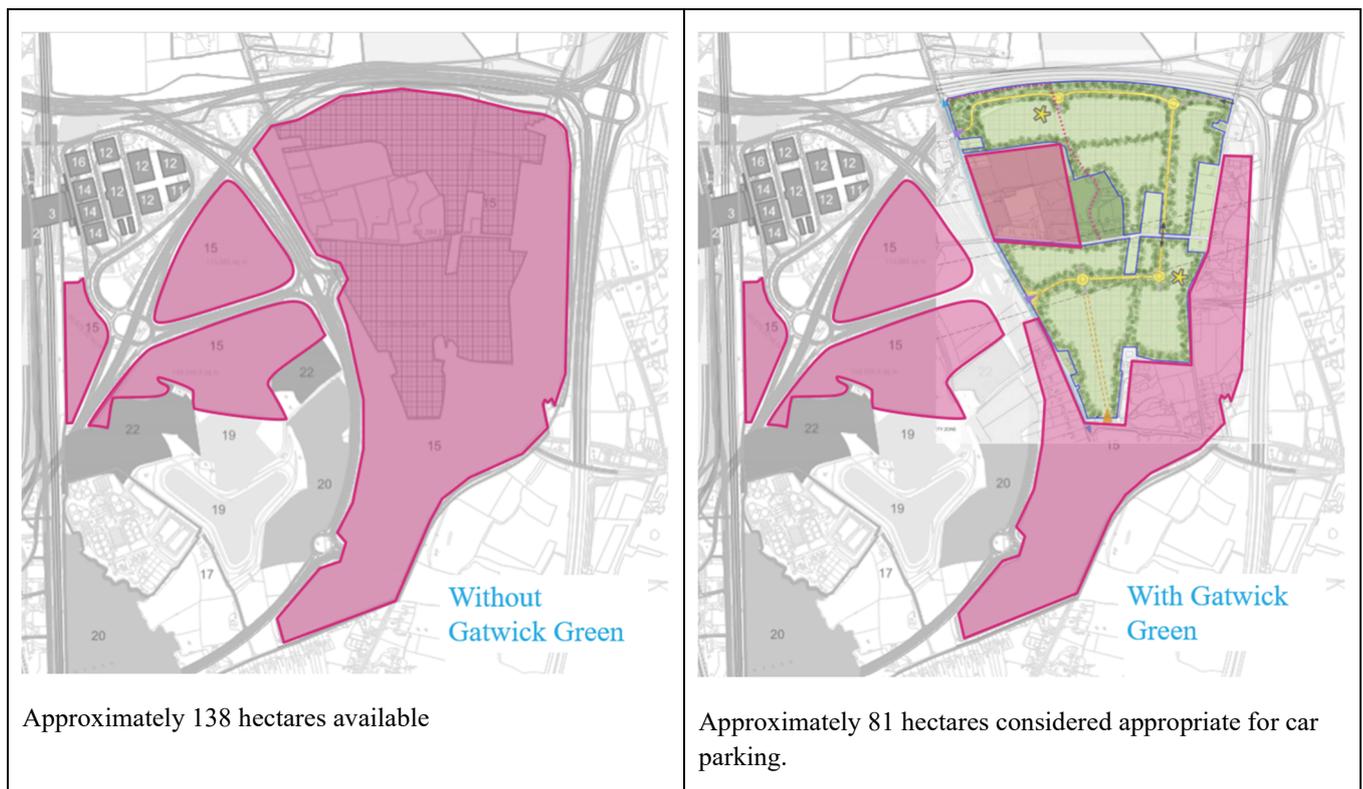
Gatwick Airport Master Plan R2 Car Parking Demand

GAL’s *Second Runway Operational Efficiency - Master Plan* is Appendix A5 of the Updated Scheme Design Submission (May 2014). Section 3.7 of this report sets out the car parking that would be provided to the east of the railway lines. Short stay car parking will be located within the multi-story car parks (MSCPs) and long stay and staff car parking are expected to be located within Zone 15 in the Master Plan. This zone is proposed to provide 95,750 spaces and includes land proposed for the Gatwick Green allocation.

Land Available for Car Parking

A review of the land available for 95,750 spaces has been undertaken with and without Gatwick Green. For the purposes of this note, “Without Gatwick Green” refers to the situation where the full R2 safeguarded land is available (i.e. no Gatwick Green development) and “With Gatwick Green” assumes the Gatwick Green allocation and development are successful. The land available is illustrated in Figure 1. Consideration is given on the likely remaining areas with the Gatwick Green development which would be appropriate to provide car parking.

Figure 1 – Land available for Master Plan car parking



Typical car parking densities, based on the experience at Gatwick Airport, are shown in Table 1. These have been considered against the land shown in Figure 1.

Table 1 – Typical car parking densities

Car park type	Car park density
Surface level	1 space per 20 sqm
Single deck	1 space per 31 sqm (15.6 sqm of ground floor area)
MSCP	1 space per 42 sqm (density by ground floor area subject to the number of floors)

Without Gatwick Green

- Around 138 hectares. The average car parking density required to provide 95,750 spaces equates to around 1 space per 14.5 sqm of ground floor area, which demonstrates that the R2 Master Plan, already required an efficient arrangement with a combination of single decked and block parking.

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With Gatwick Green

- Around 81 hectares. The average car parking density required to provide 95,750 spaces is 1 space per 8.5 sqm of ground floor area.
- This level of density means surface level and single decked parking across the whole area will be insufficient to meet requirements. To provide the required number of spaces, MSCPs with an average arrangement of ground plus 4 storeys would be required across the whole area. However, it should be noted that the area to the west of the A23 would be limited to providing up to one deck due to aerodrome safeguarding height constraints, and the general configuration of the residual land does not produce as efficient a layout for the airport car parking provided as MSCPs. These constraints and restrictions would mean that even higher density MSCPs, with a greater number of storeys would be required in other parts of the residual land. GAL notes that it is not viable for long stay products to be provided through constructing MSCPs, given the added construction costs and lower financial returns from passenger charges for long stay parking. This is a substantial change from the R2 scheme in terms of construction and operation.

Highway Access to Land East of the A23

As illustrated on Figure 1, the primary access junction presently serving the safeguarded land to the east of the realigned A23 is a significant grade separated junction commensurate with the level of use expected. The suggested land allocation for Gatwick Green (Policy EC4), and the resulting impact of the reduced Safeguarded Land for Second Runway (Policy GAT2) disconnects this primary high capacity access from the remaining safeguarded land east of the A23 and creates segregation between the remaining parcels of land for parking. This would result in a substantial change from the R2 scheme in terms of access strategy, highway design, construction, and car park operation.

Summary and Conclusions

The Gatwick Green allocation in the Draft Crawley Borough Local Plan identifies the site to be a Strategic Employment Location and removes the land from being safeguarded for a second runway. The justification of this is that GAL could accommodate car parking more efficiently. We are not aware of any technical design exercise undertaken by or on behalf of CBC to test this assumption.

On behalf of GAL, we have consequently undertaken a study which demonstrates that with R2, an efficient use of the land was already assumed with a combination of decked and block parking. With the loss of safeguarded land to allow for the Gatwick Green development, MSCPs (at least ground plus four storeys) across the whole of the remaining land would be required. This is not considered to be feasible and therefore Gatwick Green limits the ability for the R2 Master Plan to come forward.

Subject Review of Gatwick Green Transport Modelling

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The Draft Crawley Borough Local Plan 2021-2037 (Submission Publication Consultation) seeks to revise the current adopted Crawley 2030 Local Plan. The Crawley Transport Study (dated December 2020 and published May 2021) reports on the transport modelling undertaken to inform the potential impacts of three Draft Crawley Local Plan scenarios for the period 2020 to 2035.

The Local Plan period has since been extended to 2037 and the report considered that the modelling is sufficiently robust to be representative of impacts to 2037. It is stated that the quantum of development tested matches that proposed in the Local Plan period to 2037.

This note outlines the key areas of concern with the modelling work in relation to Gatwick Green which are:

1. The quantum of Gatwick Green development assessed within the traffic model.
2. The assumptions made between the proportion of B8 warehouse and B8 parcel distribution for Gatwick Green and their effect on the traffic generated.
3. The lack of highway mitigation identified, with reference to (1) and (2).
4. No clear allowance for Gatwick Airport growth having been made.

Summary

In summary, our concern is that a series of assumptions or decisions feeding the Crawley Transport Study, have resulted in an assessment of Gatwick Green (Strategic Policy EC4) that is optimistic and does not adequately consider the effects of the Draft Local Plan development local to Gatwick Airport.

The first assessment assumption is to consider an area of land, which is only 50% of the land removed from safeguarding (24.1 hectares of the 47.3 hectares of Gatwick Green). The Crawley Transport Study notes that the development area equates to 77,500sqm or around 32% of this reduced land area, rather than the 40% ratio used as a key assumption in both the Northern West Sussex Economic Growth Assessment and the subsequent Focussed Update for Crawley. The Crawley Transport Study then equates the reduced floor area (on the reduced land area) to vehicle trips based upon an assumption that only a very small proportion of the land use (10%) would be B8 parcel distribution, which is the higher vehicle generating B8 use (around 10x that of the predominant B8 warehousing used in the assessment).

Our concern is therefore that the vehicle trip generation of Gatwick Green allocation site could reasonably be multiples of that assessed within the Crawley Transport Study. An assessment of

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part of the land, part occupied by a very specific mix of development, could lead to an optimistic assessment of the impacts of the land allocation.

This assessment with a reduced level of development and vehicle trip generation, with the benefit of additional sustainable travel mitigation measures, still resulted in six junctions modelled as being overcapacity, including two junctions on A2011 Crawley Avenue to the south of Gatwick Green. No specific highway mitigation measures are identified.