

CRAWLEY WESTERN LINK ROAD – NORTHERN SECTION STUDY

REFINED AREA OF SEARCH



SYSTRA

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REFINED AREA OF SEARCH

IDENTIFICATION TABLE

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1. INTRODUCTION

1.1 Purpose of this Study

- 1.1.1 The purpose of this study is to optimise the Area of Search corridor for the northern section of the Crawley Western Link Road (between Charlwood Road and the A23 London Road) to minimise encroachment into the safeguarded land related to a further wide-spaced runway to the south of Gatwick Airport (GAT2 safeguarded land) and other existing development as far is technically and financially feasible. Where encroachment is unavoidable the aim of the study was to seek to reach agreement with all affected major stakeholders i.e. Crawley Borough Council (CBC), Gatwick Airport Limited (GAL), Horsham District Council (HDC), and West Sussex County Council (WSSC). The Area of Search identifies the area through which deliverable routes, taking into account the Local Plan policies, in particular the safeguarded area policies for the airport will be achievable, subject to further detailed, technical feasibility work and consultations.
- 1.1.2 The future link road is to be designed as a multi-modal transport link with public transport and active travel priority to ensure a high sustainable transport mode share is embedded from the outset in any future development west of Crawley and to minimise the impacts of increased traffic from significant strategic developments proposed to the west of Crawley on the existing highway network within the borough.

1.2 Methodology

- 1.2.1 In order to refine the Area of Search from that previously shown on the CBC Local Plan (See Section 2.3), and to provide an Area of Search which aligns with Local Plan Policies and major Stakeholders expectations, the following process was followed:
- Constraints mapping analysis;
 - Potential viable route identification;
 - Route evaluation and elimination; and
 - Route comparison.
- 1.2.2 A constraints mapping exercise was initially undertaken to identify the constraints along the study corridor (See Section 3). This informed the development of route options (See Section 5). The routes identified throughout this study are indicative only for the purposes of assessing a reasonable range of possible options, and do not suggest a preferred or final route option in any case. They are shown in this report to facilitate the refining of the Area of Search shown on the Local Plan Map, and its associated Local Plan Policy, to support further work on identifying and assessing specific route alignments and then progressing a multi-modal transport link, should significant strategic development to the west of Crawley's administrative boundaries come forward.
- 1.2.3 Following the development of route options, a two-step option evaluation stage was then performed. Firstly, a binary Sifting Stage was used to remove route options based on three criteria which warranted them to be eliminated. Criteria included the extents of encroachment into safeguarded land related to Gatwick Airport, the identification of better route options based on pairwise comparison and the level of public transports and pedestrian/cycle infrastructure provided (See Section 6). Secondly, a Multi Criteria Analysis

using a number of sustainable assessment criteria to identify if there were any further route options or groups of options which could be eliminated (See Section 7).

- 1.2.4 The remaining feasible options were then used to develop a refined Area of Search corridor that can accommodate a deliverable road scheme (See Section 8). The options retained are a selection of indicative alignments and as such may not reflect a final transport corridor that would need to be developed through future detailed work.
- 1.2.5 Stakeholder Engagement was key to all the stages of the study. The original study brief was agreed with all of the major stakeholders who were then engaged at all stages of the study to elicit their knowledge and discuss the development of the corridor. Private land owners were not consulted as part of this commission based on the early stage of the scheme and that the Area of Search would be consulted on through Local Plan consultation and examination. It is expected that further detailed consultation directly with potentially affected landowners will take place during future stages in the delivery of the route.

2. STUDY BACKGROUND

2.1 Overview

2.1.1 This study refines previous work in relation to the Crawley Western Link Road (CWLR) and considers the latest revision of the Crawley Borough Council Local Plan in order to develop a feasible Area of Search for the northern section of the CWLR. The aim will be to include the refined Area of Search corridor in the latest CBC and HDC Local Plans. This section of the report provides a summary of the previous work undertaken in relation to these two areas.

2.2 Crawley Western Link Road

2.2.1 The West Sussex Structure Plan 2001-2016 identified the Crawley Western “relief road” as infrastructure which could help improve safety, reduce congestion, improve mobility to the benefit of the local economy and result in an overall improvement to the environment. The West Sussex Transport Plan 2006-2016 included a strategy to improve links to the west of Crawley which would support new development while protecting neighbourhoods from through-traffic and helping to reduce congestion especially on the A23 Crawley Avenue. At the time the link road was still being assessed and little detail was available. This link road will provide a new connection between the A264 and the section of A23 London Road to the west and north of Crawley (see [Figure 1](#)).

2.2.2 The evolution of the CWLR planning and design is consistent with the latest West Sussex Transport Plan 2022-2036 (draft) thematic strategies of:

- Active Travel
- Shared Transport
- Rail Strategy
- Access to Gatwick Airport
- Road network

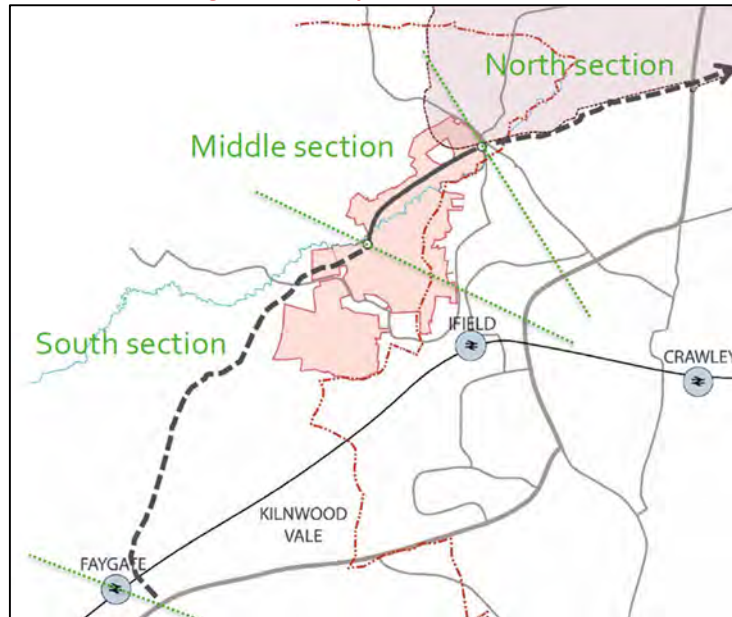
2.2.3 Within the context of these strategies the main purposes of this northern section of the CWLR are to:

- Provide a direct link between the west of Crawley to employment opportunities in the north of Crawley i.e. Manor Royal and Gatwick Airport;
- Incorporate in its design, safe and efficient infrastructure to support sustainable public transport and active travel and promote their use along the corridor as competitive options to the car.
- reduce congestion throughout the local road network and provide direct route options;
- improve safety; and
- support the development of the West of Ifield housing.

Further consideration will be given in due course, through consultation and detailed studies, to refining clear objectives for the scheme.

2.2.4 The CWLR is currently split into three sections (south, middle & north) as shown below in [Figure 1](#).

Figure 1. Crawley Western Link Road

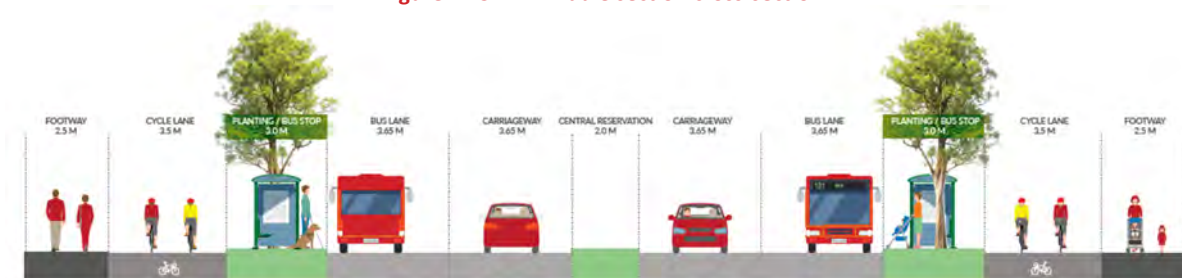


Source: Homes England

2.2.5 One of the key objectives of the CWLR is to provide a sustainable corridor which encourages use of public transport and active travel modes. The proposed cross-section for this multi-modal linking corridor seeks to promote sustainable travel and has been developed through discussion with Homes England to provide consistency. The proposed cross-section aligns with the DMRB CD 127 and LTN 1/20 standards and includes the following road infrastructure elements (See Figure 2):

- a single general traffic lane in each direction;
- a single Public Transport lane in each direction;
- a central reserve;
- a green buffer on each side of the carriageway; and
- high quality active travel provisions on each side of the road consisting of cycleways and footways.

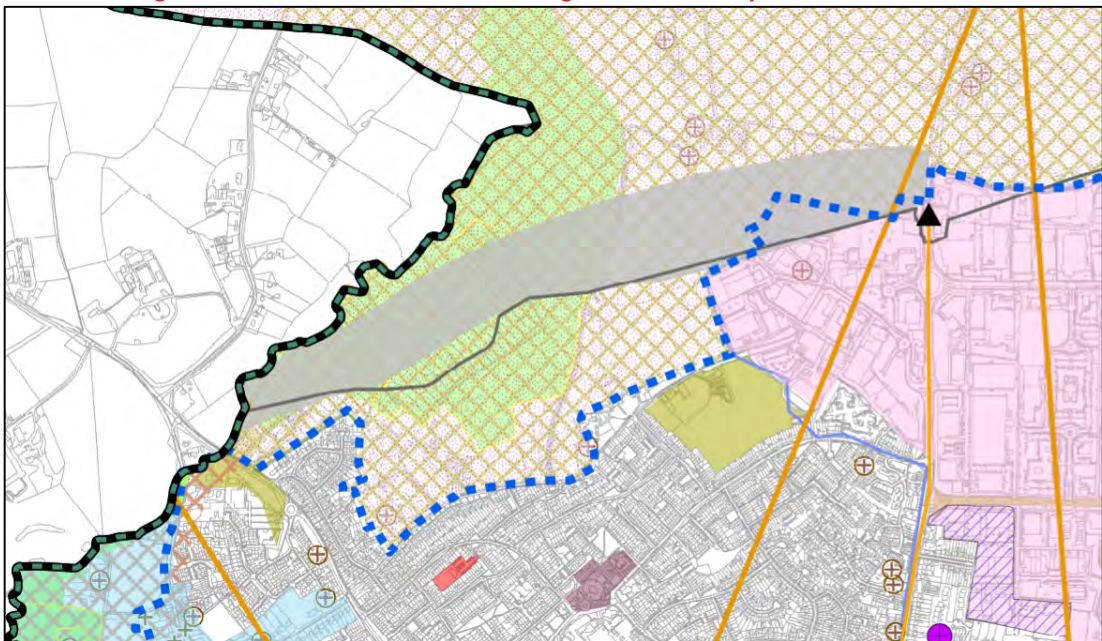
Figure 2. CWLR Middle section cross-section



2.3 Crawley Borough Council Local Plan

- 2.3.1 The current Crawley 2030 Local Plan was adopted in December 2015. It forms the council’s development plan and sets the planning policies under which development management decisions are taken.
- 2.3.2 Crawley Borough Council is in the process of updating their Local Plan and is currently progressing their Regulation 19 Local Plan following a public Consultation which closed in June 2021.
- 2.3.3 A Transport Study (*Crawley Transport Study; by Stantec, May 2021*) has been written to support the updated Local Plan. Scenario 3, which includes an estimated quantum of development located immediately to the west of Crawley, outside the borough boundaries to potentially come forward within the Horsham District Local Plan review. The forecasted peak traffic flows to support around 12,000 dwelling and 50,000 square meters of employments will be in the region of 1000 vehicles per hour in both the east and westbound directions along the CWLR route.
- 2.3.4 One of the items included in the updated Regulation 19 version of the Local Plan, was a CWLR Search Corridor (Local Plan Strategic Policy ST4), based on previous CWLR study work and shown in grey in the image below (See **Figure 3**). This corridor currently overlaps with the Gatwick safeguarded area and needs to be developed alongside Homes England’s plans to ensure continuity of provision along the CWLR.
- 2.3.5 This study will seek to refine the Area of Search corridor to a corridor agreed with all the Key Stakeholder as noted in section 2.1.

Figure 3. CWLR corridor included in the Regulation 19 Crawley Local Plan



Source: Crawley Borough Council

3. EXISTING CONSTRAINTS

3.1 Overview

3.1.1 As part of the study, a review of the existing constraints was undertaken to better understand the Study Area between Charlwood Road and the A23 London Road as shown in **Figure 4**.

Figure 4. CWLR Northern Section Study Area



3.1.2 The study area has three fairly distinct areas from west to east:

- The western section is mainly characterised by rural open space and rugby fields, within the River Mole valley, and its associated flood plain.
- The middle section is characterised by rural open space, with environmentally designated sites and the Cherry Lane Recreational area.
- The eastern section is mainly characterised by an urban industrial and commercial area which includes office spaces, retail parks and warehouses.

3.1.3 To the north of the study area is the safeguarded land related to a further wide-spaced runway to the south of Gatwick Airport, which borders the entire northern section of the CWLR.

3.1.4 The following constraints are discussed in more detail within this chapter:

- Safeguarded land related to a further wide-spaced runway to the south of Gatwick Airport,
- River Mole flood plain,
- Environmental and local constraints.

3.2 Safeguarded land related to Gatwick Airport

- 3.2.1 The previous draft CWLR Area of Search corridor, indicated on the draft Crawley Regulation 19 Local Plan Map, encroached on the area identified in the Gatwick Airport Master Plan to be safeguarded for a potential future southern runway at the airport. This boundary was recognised in the 2015 adopted Crawley Local Plan Policy GAT2, in line with national policy.
- 3.2.2 The Gatwick Safeguarding policy safeguards the land from development which would be incompatible with the future expansion of the airport. The safeguarded land is required to accommodate the construction of an additional wide spaced runway (if required by national policy) together with a commensurate increase in facilities that contribute to the safe and efficient operation of the expanded airport.
- 3.2.3 Gatwick Airport subsequently revised the Gatwick Masterplan in 2019, which has increased the size of the land required for future runway expansion to the south. Most notably for this study, this has shifted the southern boundary approximately 60m south. This has further constrained the space available for a CWLR route.

Figure 5. Safeguarded Land related to Gatwick Airport as included in the GAL 2019 Master Plan



3.3 River Mole floodplain

- 3.3.1 The River Mole and its associated flood zone is a key constraint to the provision of any CWLR route (See [Figure 6](#)). The image below shows the Environment Agency flood zones 2 (light blue line), 3a (blue line) and 3b (red line).

Figure 6. River Mole Flood Zone



Source: Environment Agency

3.3.2 The CWLR will need to cross the River Mole flood zone between Charlwood Road and the A23 London Road. Any developed route option would need to:

- Retain the current flood plain volume as a minimum,
- Preferably lead to a reduction in flooding risk,
- Cross the River Mole in a place where the river alignment is not expected to change in the future to support any adjacent development (the structure’s span may be wider if the bridge is introduced in a location where the river is believed to shift in the future),
- Ideally cross the River Mole at or close to 90 degrees to the water course in order to limit the impact on the river and its ecosystem and to provide the shortest structure possible,
- have a cross-section as narrow as possible when spanning over the River Mole for daylighting purposes.

3.4 Environmental and locally designated Constraints

3.4.1 There are a large number of Environmental and locally designated constraints within the study area. These include:

- Ancient woodland,
- Archaeological notification area,
- Archaeological site,
- Biodiversity opportunity area,
- Outside the Built Up Area Boundary: Countryside Character Area – Upper Mole Farmlands Rural Fringe,
- Heritage assets,
- Heritage site,
- Listed buildings,
- Local green space,
- Local natural reserve,

- Local wildlife site,
- Potential housing allocation.
- Priority area district energy,
- Scheduled ancient monument,
- Sites of special scientific interest (SSSIs), and
- Structural landscaping.

3.5 Summary

3.5.1 All the constraints discussed within Section 3 are shown on the Existing Constraints Plan in **Appendix A**.

4. ROAD STANDARDS

4.1 Type of road and design speed

4.1.1 Whilst the CWLR will vary in its width, speed and cross-section as the route passes through different character areas, such as the new neighbourhood, rural areas and the commercial area of County Oak, it is important that a coherent, functioning and comprehensive route is provided throughout its entire length from A264, Horsham, to the A23, north of County Oak, Crawley. The route should align with DMRB design standards. The CWLR is seen as providing a sustainable corridor to promote public transport and active travel. As such, the following design criteria have mainly been used in the identification of possible routes within the northern section:

- All-purpose dual carriageway multi-modal link inclusive of one traffic lane and one bus lane in each direction;
- 70kph design speed (40mph speed limit) which may be reduced to meet surroundings' requirements i.e. County Oak Industrial Area;
- Each carriageway will 7.3m wide consisting of two 3.65m wide lanes, one lane for general traffic and one for public transports;
- 2m central median is provided between the carriageways; and
- 3m planting strip, 2.5m walking infrastructures and 3.5m cycling facilities provided on each side of the carriageway.

4.1.2 At the eastern end of the scheme, potential routes which may thread through the County Oak Industrial Area would likely reduce to urban standards and narrower cross-section in line with the surroundings.

4.2 Cross-sections

4.2.1 Where space is not heavily constrained, it is expected that the Optimal Cross-section would be provided. However, it is acknowledged that there may be the opportunity to adjust the cross-section, where the space is constrained.

4.2.2 Several cross-sections have been developed as part of this study to determine the space that will be required for a future link road. The developed cross-sections are modified from the Optimal Cross-section which has been used as baseline for unconstrained areas. Five of these are described in more detail below:

- A 40m Cross-section akin to the CWLR middle section – Optimal Cross-section (see [Figure 7](#));
- A 40m Cross-section including a bus stop to demonstrate that it can be incorporated within a 40m width (see [Figure 8](#)).
- A 31.1m Cross-section to indicate a narrowed width whilst maintaining the pedestrian and cycle facilities, public transport lanes, all traffic lanes and dual carriageway central median (see [Figure 9](#));
- A 26.6m Cross-section to indicate the narrowest width corridor, which is considered possible, whilst maintaining the pedestrian and cycle facilities, public transport lanes and all traffic lanes, but without a central median (see [Figure 10](#)).

- A 19.3m Cross-section to indicate the likely width required for a corridor, should public transport be served via a different route or be sharing the general traffic lane (with implications for bus journey time reliability) and the active travel provision be reduced to a shared space infrastructure. This cross-section has been developed to provide a route through constrained areas which may require to divert the public transport along a different route to maintain the minimal public transport provisions (see Figure 11).

Figure 7. 40m Cross-section – Optimal cross-section



Figure 8. 40m Cross-section - Optimal cross-section with Bus Stop

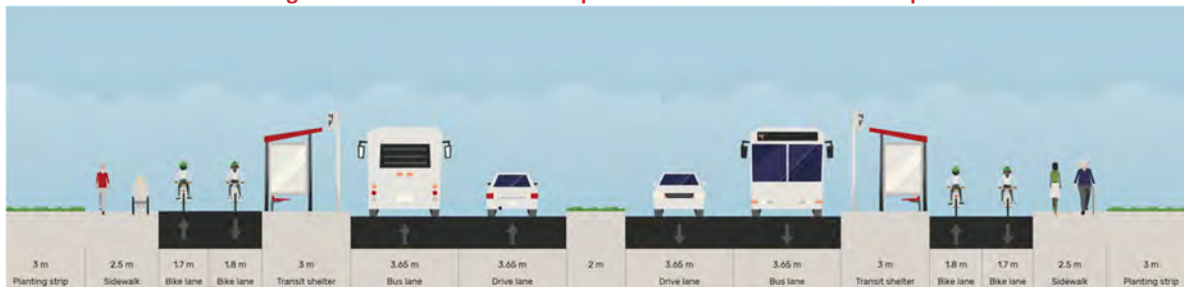


Figure 9. 31.1m Cross-section – Reduced Width with Central Median



Figure 10. 26.6m Cross-section – Reduced Width without Central Median



Figure 11. 19.3m Cross-section – Reduced Width without Central Median (buses in lane with general traffic)



(Cross-sections above were produced using Streetmix [streetmix.net])

5. OPTION IDENTIFICATION

5.1 Overview

- 5.1.1 As described in the methodology section of the report, in order to refine the Area of Search corridor, the study used the constraints information to identify a long list of possible route options for the northern section of the CWLR which would have defined the extents of the refined Area of Search.
- 5.1.2 In order to reduce the number of duplicate routes and provide a more focused assessment within the study area, the study area was split into three sections (Western, Middle and Eastern) (see Figure 12).

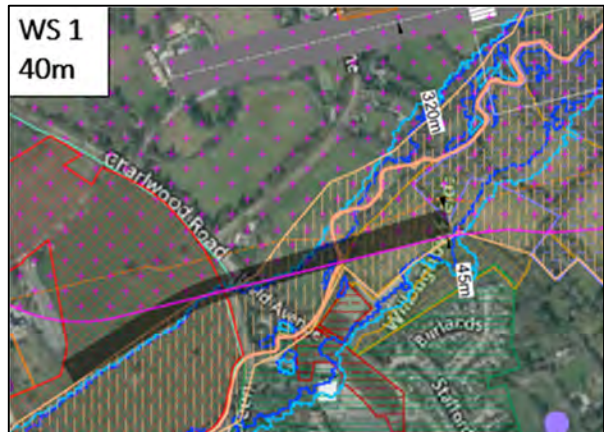


- 5.1.3 Potential route options have been identified and developed in each of the three sections as described in this chapter.

5.2 Western Section

- 5.2.1 For the western section, 5 options were developed which took into account the presence of the Crawley Rugby Football Club and their fields, the River Mole and its floodplain, residential houses and the safeguarded land related to Gatwick Airport.
- 5.2.2 Each option is Prefixed by “WS” for the Western Section with an identification number. The option images include a cross-section width to indicate the likely cross-section (See chapter4) that would be provided.

5.2.3 The first option, WS1, has been developed to cross the flood plain close to a particularly narrow point (260m). The route stays north of the residential buildings around Ifield Green thereby preventing them from needing to be removed. Whilst the rugby clubhouse does not require removal, most of the pitches are likely to. This option encroaches into the safeguarded land by about 45m.



5.2.4 Option WS2 has been developed to avoid encroaching into the safeguarded land. The route runs north against the safeguarded land which leads to 415m of road being located within the flood plain. However, the proposed alignment may lead to the removal of the rugby clubhouse and pitches as well as the residential buildings around the north of Ifield Green.



5.2.5 Option WS3 has been developed to avoid removal of residential properties on Ifield Green. The route avoids the safeguarded land for the majority of the link and encroaches into the land by about 25m which reduce the length of road located within the flood plain (288m). However, the proposed alignment may lead to the removal of the rugby clubhouse and pitches.



Option WS4 has been developed to cross the flood plain at a particularly narrow point (220m) and close to perpendicular. The route stays north of the residential buildings around Ifield Green thereby preventing them from needing to be removed. Whilst the rugby clubhouse does not require removal, most of the pitches are likely to. This option encroaches into the safeguarded land by about 55m.



- 5.2.6 Option WS5 has been developed to avoid removal of residential properties and the rugby clubhouse and pitches. This option encroaches into the safeguarded land by about 145m. The route runs through the flood plain further north-east (300m).



- 5.2.7 Additional Route Options which were further north than the 5 identified were considered but not developed further as they are not considered to be feasible for the following reasons:

- They would have had an increased impact on existing residential housing along Bonnets Lane;
- They would have to cross the River Mole Flood Plain at a wider location,
- They would provide a less direct route between Charlwood Rd and the A23 London Road.
- They would cross the Environmentally designated site in a location which would require significant tree removal; and
- They would encroach further into the safeguarded area.

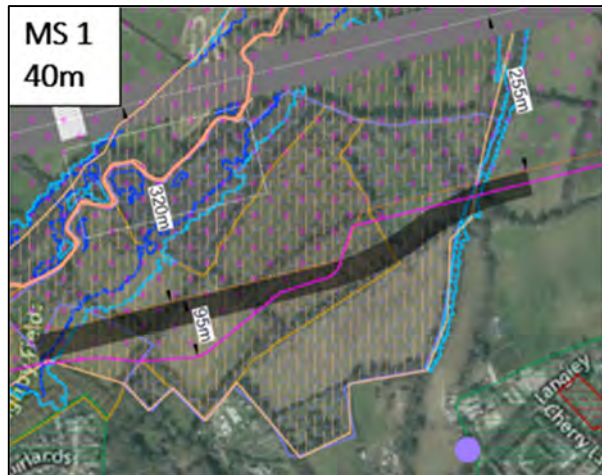
- 5.2.8 Additionally, route options further south than the 5 identified options were not developed as they would require significant residential property removal.

5.2.9 Middle Section

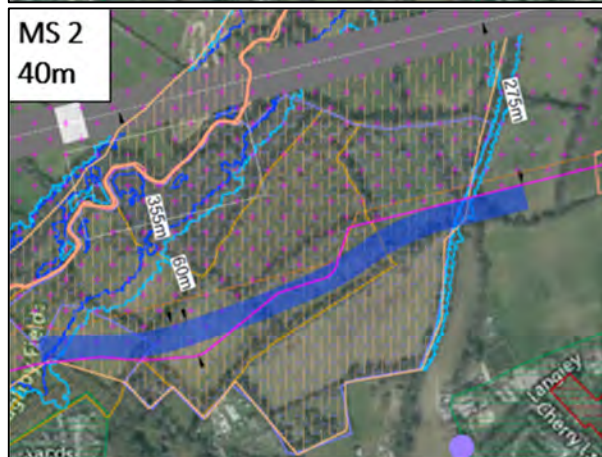
- 5.2.10 For the middle section, 6 options were developed which took into account the presence of the Crawley Rugby Football Club, Cherry Lane playing field, environmental constraints and the safeguarded land .

- 5.2.11 Each option is Prefixed by “MS” for the Middle Section with an identification number. The option images include a cross-section width to indicate the likely cross-section (See chapter 4) that would be provided.

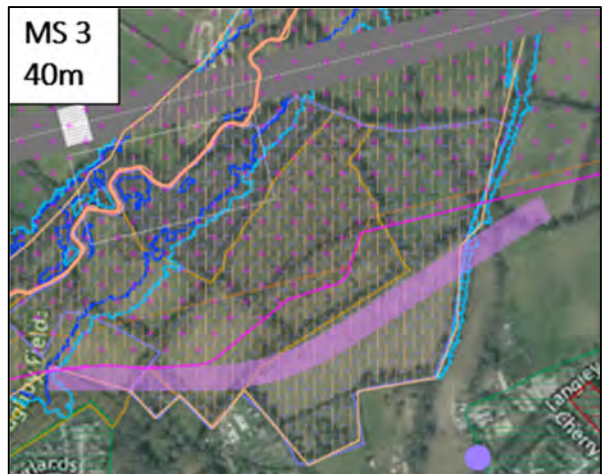
5.2.12 The first option, MS1, has been developed to avoid the removal of any residential houses and the Cherry Lane playing field by encroaching into the safeguarded land by about 95m. However, this option requires the removal of three rugby pitches.



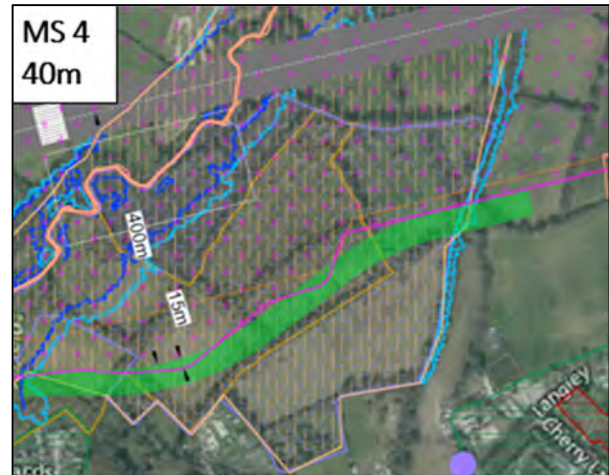
5.2.13 Option MS2 is similar to option MS1 but with the difference that the western section of this option has been slightly shifted south to reduce the encroachment into the safeguarded land (60m). This alignment requires also the removal of two rugby pitches.



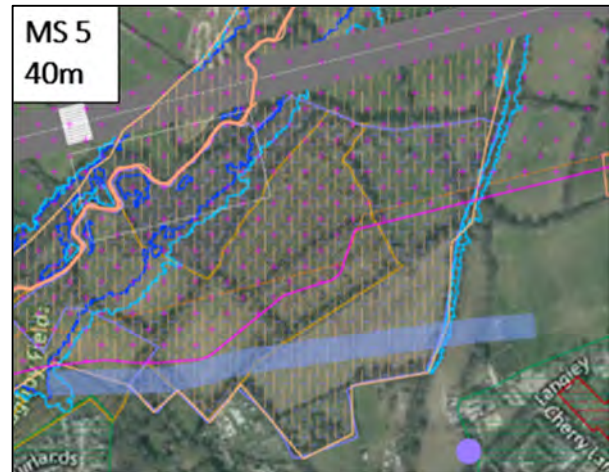
5.2.14 Option MS3 has been developed to avoid any encroachment into the safeguarded land. Locating this option outside this land, requires MS3 to be in the vicinity of the residential constructions around Langley Walk but this option will not require the removal of any residential buildings. MS3 requires the removal of two rugby pitches to the west and the north-western corner of the Cherry Lane playing field to the east.



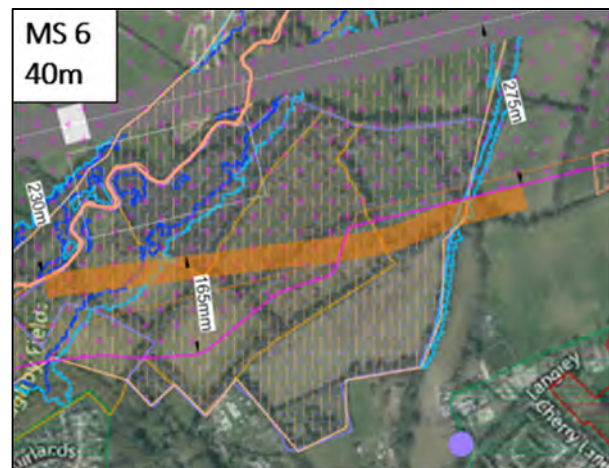
5.2.15 Option MS4 has been developed to skirt the safeguarded land and to encroach into this area by about 15m. This option runs close to existing residential properties but it doesn't require the removal of any houses. MS4 doesn't affect the Cherry Lane playing field but it requires the removal of two rugby pitches.



5.2.16 Option MS5 has been developed to avoid any impact on the safeguarded land by being located in the vicinity of the residential construction around Langley Walk. This option requires the removal of two rugby pitches and also the totality of the Cherry Lane playing field.



5.2.17 Option MS6 has been developed to remove only one rugby pitch by encroaching into the safeguarded land by about 165m. This option doesn't require any houses to be removed whilst also not affecting the Cherry Lane playing field.



5.2.18 Additional Route Options which were further north than the 6 identified were considered but not developed further as they are not considered to be feasible for the following reasons:

- They would have an increased impact on existing residential housing along Bonnets Lane;
- They would have to cross the River Mole Flood Plain at a wider location,

- They would provide a less direct route between Charlwood Road and the A23 London Road.
- They would have to cross the Environmentally designated site in a location which would require significant tree removal; and
- They would encroach further into the safeguarded area.

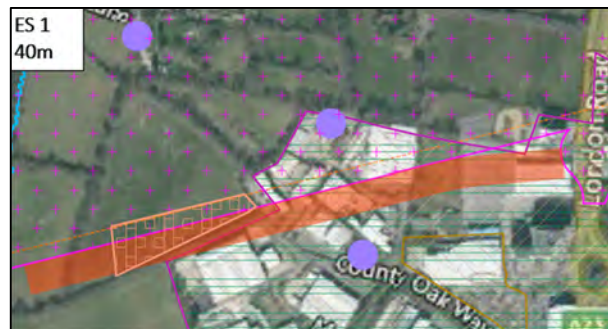
5.2.19 Additionally, route options which were further south than the 6 identified options were not developed as they would require significant tree/visual screening and residential property removal.

5.3 Eastern Section

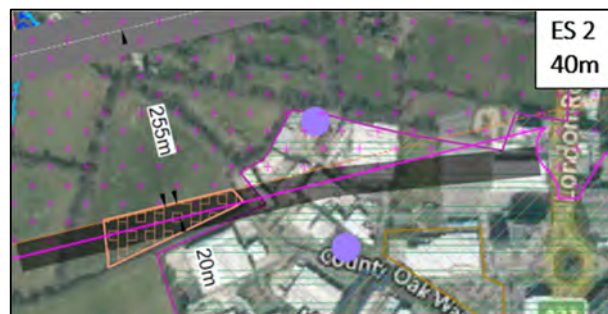
5.3.1 For the eastern section, 19 options were developed which took into account the presence of the safeguarded land related to Gatwick Airport and existing constraints such as retail shops, office buildings and active travel infrastructure.

5.3.2 Each option is Prefixed by “ES” for the Eastern Section with an identification number. The option images include a cross-section width to indicate the likely cross-section (See chapter 4) that would be provided.

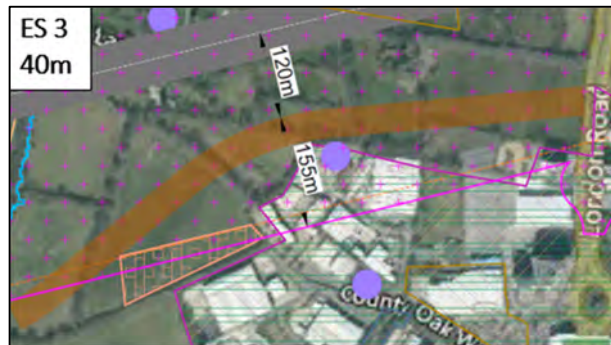
5.3.3 The first option, ES1, has been developed to not encroach in the safeguarded land whilst being located as far north as possible. This option requires the removal of up to 10 commercial activities but it provides a consistent Optimal cross-section (see Figure 7), it doesn't affect the existing bridleway or road network and it ties-in with London Road at Hydehurst Lane which has been identified as the preferred location and which match the new roundabout location proposed in the GAL Masterplan.



5.3.4 Option ES2 is similar to ES1 but shifted north. This option encroaches into the safeguarded land by about 20m which is believed could be acceptable based on standard runway cross-section. This option requires also the removal of up to 10 commercial buildings.



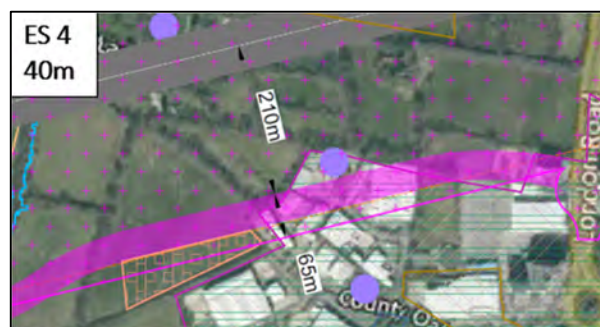
5.3.5 Option ES3 has been developed to explore an alignment which can be introduced before (if) Gatwick expands. This option is proposed because it could be several decades before Gatwick needs to bring forward a southern runway, if it ever does so. ES3 doesn't require any commercial buildings to be removed but it encroaches into the safeguarded land by about 155m. This option provides a consistent Optimal cross-section (see Figure 7), it doesn't affect the existing bridleway or road network and it ties-in with London Road at Hydehurst Lane which has been identified as the preferred location and which match the new roundabout location proposed in the GAL Masterplan.



5.3.6 Option ES3a is similar to ES3 with the difference that part of the public transport would be diverted along County Oak Way to provide connectivity with the retail area. In the long term, should Gatwick southern expansion take place, the public transport infrastructure will be maintained along County Oak Way but the general traffic lanes to the north will be removed and replaced with the Gatwick access plan. As per ES3, ES3a provides a consistent Optimal cross-section (see Figure 7) for the norther and western arm whilst also ting into Hydehurst Lane and not affecting the bridleway. However, this option diverts part of the public transport onto County Oak Way (with a similar cross-sections to the existing County Oak Way) therefore affecting the existing road network.



5.3.7 Option ES4 is similar to ES1 but shifted north encroaching into the safeguarded land by about 65m. This option still requires the removal of up to 10 commercial buildings.



5.3.8 Option ES5 is similar to ES1 but shifted north encroaching into the safeguarded land by about 130m. This option requires the removal of up to four commercial buildings but one listed building.



5.3.9 Option ES6 has been developed to have no impact on the safeguarded land by using the existing bridleway. This option requires a reduction in cross-section to 26.6m (see Figure 10) and it removes the existing bridleway and up to four commercial activities. ES6 ties-in with London Road at Hydehurst lane which is considered the preferred junction location and which match the new roundabout location proposed in the GAL Masterplan.



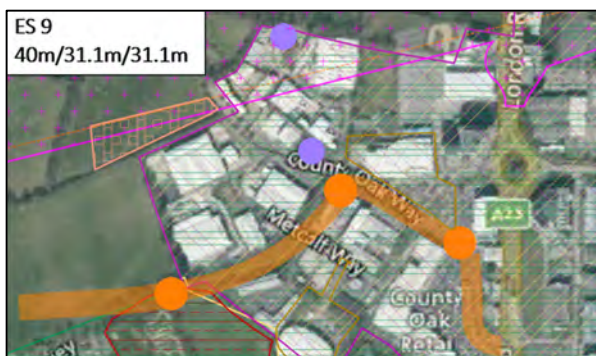
5.3.10 Option ES7 has been developed to have no impact on the safeguarded land by using the existing bridleway. This option requires a reduction in cross-section to 19.3m (see Figure 11) and it removes the existing bridleway and up to four commercial activities including relocating the Acorn Retail parking. This option affects the existing road network by using part of County Oak Way and it ties-in with London Road at Fleming Way roundabout which doesn't represent the preferred location to provide this junction.



5.3.11 Option ES8 is similar to ES7 but with a wider cross-section of 26.6m (see Figure 10) which still requires the removal of up to four commercial sites.



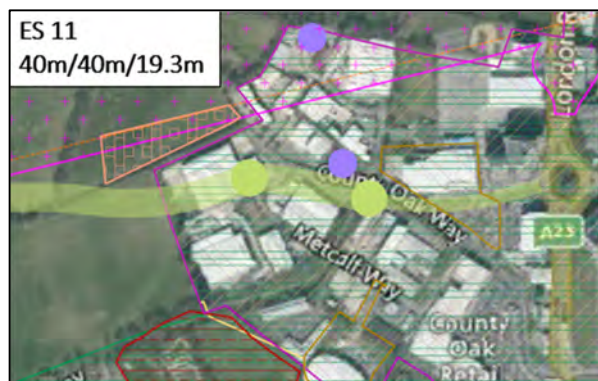
5.3.12 Option ES9 has been developed to have no impact on the safeguarded land and to use part of the existing road network. This option requires a reduction in cross-section to 31.1m (see Figure 9) and it removes the existing bridleway and up to 10 commercial activities. This option will be affecting the existing road network by using the majority of County Oak Way. ES9 ties-in with London Road at the County Oak junction which may lead to capacity issues.



5.3.13 Option ES10 has been developed to have no impact on the safeguarded land and on the bridleway. This option requires the removal of up to four commercial activities including the relocation of the Acorn retail parking. ES10 requires a use of the constrained cross-section of 19.3m (see [Figure 11](#)) and it may lead to an increase in traffic on County Oak Way and at the Fleming Way roundabout.



5.3.14 Option ES11 is similar to ES10 but with wider cross-sections for a longer section. This option will still affect up to four commercial sites.



5.3.15 Option ES12 is similar to ES10 but with wider cross-sections. The wider cross-section requires to remove up to 10 commercial activities.



5.3.16 Option ES13 has been developed to avoid the bridleway and to encroach into the safeguarded land by only 20m which is believed to be acceptable based on standard runway cross-sections. This option removes up to four commercial buildings and it affects the existing road network by using the northern section of County Oak Way to tie-in at the Fleming Way roundabout. This option is characterised by a 19.3m cross-section (see [Figure 11](#)) but it doesn't on the existing bridleway.



5.3.17 Option ES14 has been developed to provide a direct connection to Fleming Way roundabout through the County Oak industrial area whilst not affecting the safeguarded land. This option removes up to four commercial buildings some of which are owned and used by CBC. ES14 removes also the existing bridleway and it provides a 26.6m cross-section (see [Figure 10](#)).



5.3.18 Option ES15 has been developed to have no impact on the safeguarded land by using the existing County Oak Way. This option removes up to four commercial buildings, it provides a 19.3m cross-section (see [Figure 11](#)) and it uses the whole County Oak Way to tie-in with London Road at the County Oak junction which may lead to capacity issues and traffic congestion. However, by using the existing road network, ES15 doesn't affect the existing bridleway.



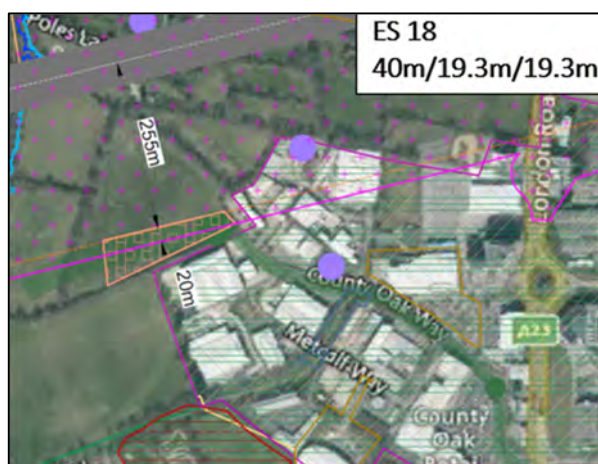
5.3.19 Option ES16 is similar to ES15 but with wider cross-sections of 26.6m (see [Figure 10](#)). The increase in cross-section leads to a higher number of commercial buildings to be removed (up to 10).



5.3.20 Option ES17 is similar to ES16 but with wider cross-sections of 31.1m (see [Figure 9](#)) which still leads to the removal of up to 10 commercial buildings.



5.3.21 Option ES18 has been developed avoid the brideway and to encroach into the safeguarded land by only 20m which is believed to be acceptable based on standard runway cross-sections. This option removes up to four commercial buildings and it uses the whole County Oak Way to tie-in with London Road at the County Oak junction which may lead to capacity issues and traffic congestion. ES18 provides a 19.3m cross-section (see [Figure 11](#)).



5.3.22 Option ES19 has been developed to provide a direct connection to County Oak junction through the County Oak industrial area whilst not affecting the safeguarded land. This option removes up to 10 commercial activities including the County Oak Retail Park and part of the existing brideway. However, ES19 provides a 31.1m cross-section (see [Figure 9](#)).



5.3.23 Additional route options which were further north than the 19 identified were considered but not developed further as they were not considered to be feasible for the following reasons:

- They would have an increased impact on existing residential housing along Poles Lane;
- They would provide a less direct route between Charlwood Road and the A23 London Road; and
- They would encroach further into the safeguarded area.

5.3.24 Additionally, Route Options which were further south than the 19 identified Eastern options were not developed as they would have require significant residential property removal.

5.4 Stakeholder Engagement – Option Identification

5.4.1 The identified constraints and route options were presented and discussed with the major Stakeholders (Crawley Borough Council, Environment Agency, Gatwick Airport Limited, Homes England, Horsham District Council and West Sussex County Council) during several workshops during September 2021 and no additional route options were identified. It has thus been accepted that the numerous options developed substantially represent the best potential route alignments possible under the constraints considered, though refinement of these during concept design through to detailed design may result in variations thereof, or additions.

6. OPTION SIFTING

6.1 Overview

6.1.1 Having identified and developed route options for each of the three sections (western, middle and eastern) a sifting process was undertaken to determine if any of the developed route options could be discounted based on several sifting criteria. The following Sifting Criteria were developed and used:

- **Considerable safeguarded Land Encroachment** - Encroachment into the safeguarded area which is likely to intrude into the operational airport area and affect the ability of GAL to provide an expanded southern Runway design.
- **Pairwise comparison** – Options have been discounted if there is an alternative option which has all the same negative aspects, but with additional positive aspects, also considering the strategic stage of the scheme which we are currently at which doesn't preclude future iteration and alterations being explored.
- **Inadequate public transport and pedestrian/cycle provision** – A key priority for the CWLR is to provide a corridor which supports sustainable transport. Not being able to provide this due to cross-sectional constraints is considered a sifting criteria.

6.2 Sifting Outcomes Western Section

6.2.1 The option sifting has led to the discounting of a number of options based on the three criteria identifies. [Table 1](#) summarises the options have been discounted and what criteria have led to their removal. See [Appendix B](#) for more detail.

Table 1. Options sifted out

OPTION	CONSIDERABLE SAFEGUARDED LAND ENCROACHMENT	PAIRWISE COMPARISON	INADEQUATE PUBLIC TRANSPORT AND PEDESTRIAN/CYCLE PROVISION
WS5	X		
MS6	X		
ES4	X		
ES5	X	X	
ES7		X	X
ES11		X	X
ES13		X	X
ES15		X	X
ES16		X	

OPTION	CONSIDERABLE SAFEGUARDED LAND ENCROACHMENT	PAIRWISE COMPARISON	INADEQUATE PUBLIC TRANSPORT AND PEDESTRIAN/CYCLE PROVISION
ES18		X	X
ES19		X	

6.3 Stakeholder Engagement and Sifting Observations

- 6.3.1 The option sifting was discussed with the major Stakeholders (Crawley Borough Council, Environment Agency, Gatwick Airport Limited, Homes England, Horsham District Council and West Sussex County Council) during several workshops during September 2021. No concerns with the options which were proposed for sifting were raised by the Stakeholders other than Gatwick Airport Limited (GAL).
- 6.3.2 GAL requested that further work was done to determine if there was a material benefit which meant that MS1 should be retained as its additional encroachment (above Route MS2), may present technical challenges to the provision of the Southern Runway. Route Option MS1 was retained until the Multi Criteria Analysis (MCA) stage to allow the pros and cons of the option to be considered in more detail.
- 6.3.3 GAL also requested that Route Options ES3 and ES3a should be sifted out. Sifting of these two options was given substantial consideration. It is known that their alignments would likely encroach into the operational area of potential Gatwick Airport southern runway. However, when considered alongside the alternative Eastern Section options, it was felt that there were substantial benefits to these two route options which warranted their retention at the sifting stage to analyse their pros and cons during the MCA analysis stage.
- 6.3.4 It is worth noting that some of the other remaining live Options (WS1, WS3, WS4, MS2, MS3, MS4 & ES2) encroach slightly into the current safeguarded land related to Gatwick Airport, but this was not raised as an issue, by Gatwick Airport Limited, given the acceptance that future design development work is required for both the CWLR and the Gatwick southern runway Masterplan.

6.4 Traffic Modelling and Network Performance

- 6.4.1 As mentioned in Section 2.3 of the report, forecast peak traffic flows are expected to be in the region of 1000 vehicles per hour in the westbound and eastbound directions. As such, it was considered that network performance and particularly, the ability to provide an operational junction may have been a factor which discounted/sifted out some of the potential route options.
- 6.4.2 In order to assess this, a traffic assignment and junction modelling exercise was undertaken to determine the likely junction configuration and size at the three potential junction locations on the A23, namely:

- Fleming Way;
- County Oak Way;
- A Junction in the vicinity of Hydehurst lane.

6.4.3 The study determined that a junction arrangement would be easiest to provide at Hydehurst lane, a junction at Fleming Way was likely to be possible and that a potential connection at County Oak would be the most challenging of all three locations, potentially requiring more complex mitigation than the other two junctions. See **Appendix C** for more detail.

6.4.4 In summary, it was considered that all three junction locations were feasible and as such, none were discounted from the identified route options based on the traffic modelling and future network performance. However, the results of the work undertaken was used to inform the performance assessment (Multi Criteria Analysis) as described in the next chapter of this report.

7. MULTI – CRITERIA ANALYSIS

7.1 Overview

- 7.1.1 Having undertaken a sifting process, a performance assessment, in the form of a high-level multi-criteria analysis, was undertaken to determine if there were any routes which may warrant removal from the final Area of Search corridor.
- 7.1.2 A qualitative high-level multi criteria (MCA) sifting exercise was undertaken to help assess the pros and cons of each of the route options. The sustainable assessment criteria used in the MCA appraisal categories (based on the criteria defined by the Department for Transport) are focused on those criteria which directly link to the proposed scheme.
- 7.1.3 A consistent appraisal framework has been applied for each section of the scheme (Western, Middle and Eastern). Given that the scheme is still in early development phase, some assumptions around the degree of impact were necessary, and have been documented where applicable.

7.2 Assessment Criteria

- 7.2.1 The full list of assessment criteria for the sifting exercise and description of the considerations for each criteria are listed in [Table 2](#) below. A weighting factor has been applied to help align the scoring with the factors which are most important to the CWLR scheme.

Table 2. Sifting Criteria, Description and Weighting

SIFTING CRITERIA	DESCRIPTION	WEIGHTING (TOTAL OF 26)
Commercial/industrial impact	To what extent does the link impact on commercial and industrial activities within and outside CBC and WSCC land?	2 (~7.7%)
Residential impact	To what extent does the link directly impact on residential properties considering also their distance from the link road?	3 (~11.5%)
Environmental	To what extent does the link impact on the environment and on existing local constraints?	3 (~11.5%)
Safety	To what degree does the link enhance active travel safety,	3 (~11.5%)

SIFTING CRITERIA	DESCRIPTION	WEIGHTING (TOTAL OF 26)
	vehicular travel safety and construction safety?	
Network performance	To what degree will the link impact the existing road network, how will the route corridor perform and how does the route corridor affect access to sites and residential and commercial zones?	2 (~7.7%)
Constructability	To what degree will the link be characterised by risk and uncertainty and what are the requirements to introduce the new link?	1 (~3.8%)
Stakeholder and Public Acceptability	How likely are stakeholders and the public to support the link?	3 (~11.5%)
Shift to active travel and to public transport	Does the link provide a route and infrastructure to promote active travel and public transport ?	3 (~11.5%)
Social Infrastructure Impact	Do the route options for the corridor affect any existing social infrastructure?	3 (~11.5%)
Cost Banding	A rating based on the likely construction costs and qualitative assessment of the land and commercial costs	3 (~11.5%)

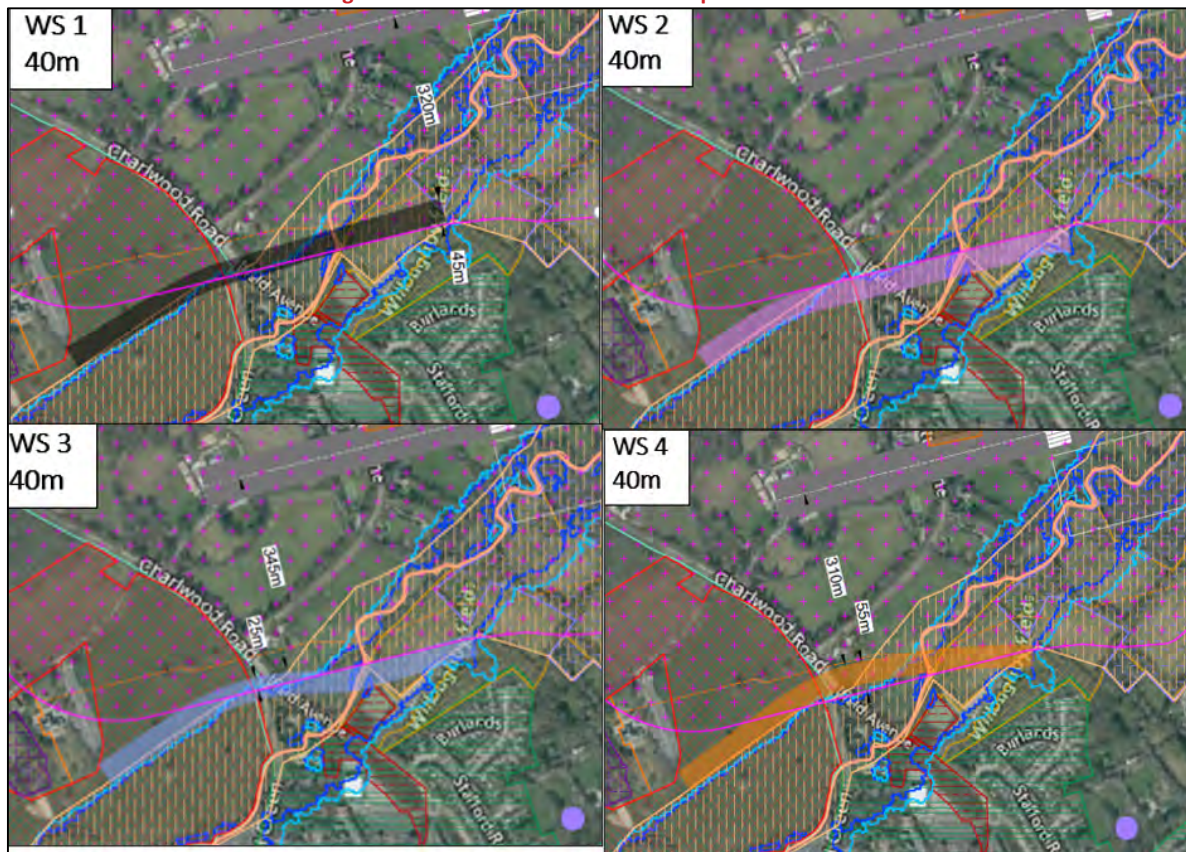
7.2.2 The scoring is between 1-5, where 1 is the lower end of the band and 5 is the higher end. The relevant weighting is then applied, with all the scores summed to generate an overarching score for each options within the three sections with a maximum achievable of 130 points per option .

7.2.3 It is important to note, that in order not to double count the National safeguarding sifting criteria, used in Section 6, encroachment into the safeguarded land was not repeated in the MCA scoring.

7.3 Western Section - MCA Performance

7.3.1 **Figure 13** shows the western options which remain feasible following the sifting stage (See Section 6) and were assessed using the MCA process.

Figure 13. Western Section Options – For MCA



7.3.2 The results of the MCA process are summarised in **Table 3** below. A more comprehensive table is included in **Appendix D** where each criteria is scored individually.

Table 3. Western Section MCA Scoring

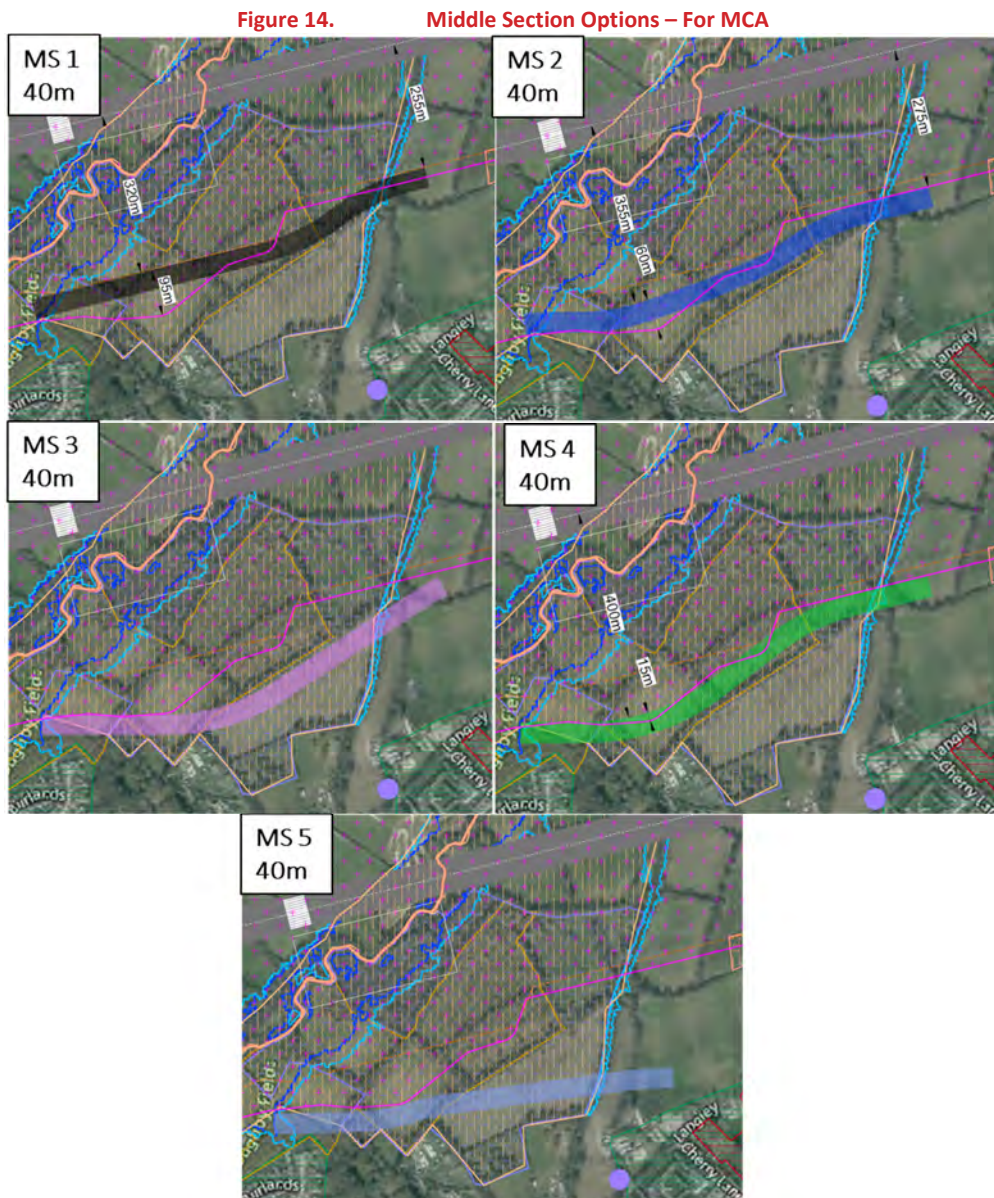
DESIGN	WS1	WS2	WS3	WS4
Score	91	81	86.5	86.5

7.4 Summary and Area of Search implications – Western Section

7.4.1 For the western section, the MCA indicated that WS1, WS3 and WS4 scored best and similarly overall and as a result will remain within the Area of Search Corridor. These three options scored well because they’re located norther than WS2 which allows them to be further away from residential houses and to have a limited impact on the flood plain with consequently cost saving. Importantly, for defining the refined Area of Search; although WS2 performed least well of the four route options, it was determined that the Area of Search corridor should retain the area for this potential alignment route as the route corridor is relatively narrow at the western end and WS2 presents the only route fully outside of the safeguarded land.

7.5 Middle Section - MCA Performance

7.5.1 **Figure 14** shows the middle options which remain feasible following the sifting stage to be further assessed during the MCA process.



7.5.2 The results of the MCA process are summarised in **Table 4** . A more comprehensive table is included in **Appendix E** where each criteria is scored individually.

Table 4. Middle Section MCA Scoring

DESIGN	MS1	MS2	MS3	MS4	MS5
Score	99.5	99.5	96.5	96.5	89

7.6 Summary and Area of Search implications – Middle Section

7.6.1 For the middle section, the MCA indicated that MS1, MS2, MS3 and MS4 scored best and similarly overall.

7.6.2 MS5 performed least well of the 5 options. This was predominantly because of its social infrastructure impact as a consequence of the alignment which affects the Cherry Lane Recreational fields in addition to the closer proximity to residential receptors. MS5 also links to the options which run along the bridleway, which score poorly in the eastern section due to the removal of the existing bridleway resulting in limited benefits for non-motorised users.

7.6.3 MS1 was assessed using the MCA, as even though it was requested for removal by GAL due to the level of encroachment into the safeguarded area, assessment through the MCA allowed the pros and cons of the option to be considered in more detail. However, it demonstrated that, although it was a high performing route option overall, it did not show any benefits above MS2 which would warrant its retention in the Area of Search.

7.6.4 As such, in terms of defining the refined Area of Search, it was considered that the Area of Search should be reduced to omit MS5 and MS1 from the area.

7.7 Eastern Section - MCA Performance

7.7.1 **Figure 15**, on the next page, shows the eastern options which remain feasible following the sifting stage to be further assessed during the MCA process.

Figure 15. Eastern Section Options – For MCA



7.7.2 The results of the MCA process are summarised in **Table 5** below. A more comprehensive table is included in **Appendix F** where each criteria is scored individually.

Table 5. Eastern Section MCA Scoring

DESIGN	ES1	ES2	ES3	ES3A	ES6	ES8	ES9	ES12	ES14	ES17
Score	92	93	99.5	102	78	79.5	73	98.5	80	94

7.8 Summary and Area of Search implication – Eastern Section

7.8.1 For the eastern section, the MCA indicated that ES1, ES2, ES3, ES3a, ES12 and ES17 scored best and similarly overall, with ES3a performing highest overall. These six options were all considered as scoring similar even if characterised by a wider scoring band (102 being the best score and 94 the worst) than the options considered similar for the western and middle sections. This approach was based on the fact that a higher number of options were developed for this section and because a more diverse environment characterises this area. Developing a number of very distinct options led to a wider overall scoring band which consequently increased the number of options considered to be scoring similarly. ES1, 2, 3 and 3a scored well because of their minimal commercial impact by staying north and by providing a consistent cross-section throughout the whole link which would allow to accommodate the Optimal Cross-section. ES 12 and 17 scored well because of the reduced impact on commercial activities due to their alignment partially following County Oak Way. The 4 route options: ES6, ES8, ES9 and ES14 performed the least well of the 10 options. This was predominantly because of their impact on the bridleway.

7.8.2 In terms of defining the refined Area of Search, it was considered that the Area of Search should be reduced to omit the four poorest performing route options (ES6, ES8, ES9 and ES14) from the area.

7.9 Stakeholder Engagement and MCA Observations

7.9.1 The assessment of options was discussed with the major Stakeholders (Crawley Borough Council, Environment Agency, Gatwick Airport Limited, Homes England, Horsham District Council and West Sussex County Council) during several workshops during September 2021. No concerns with the remaining options were raised by the Stakeholders other than Gatwick Airport Limited (GAL).

7.9.2 While GAL agreed with the remaining options for the western and middle sections, GAL raised concerns with retaining Route Options ES3 and ES3a within the Area of Search because of their substantial encroachment within GAL safeguarded land.

7.9.3 The MCA demonstrated that option ES3 and particularly ES3a could have substantial positive aspects in comparison to the other Eastern route options. It is acknowledged that these options are unlikely to be able to coexist with a Gatwick southern runway, but the possible significant interim positives prior to a potential future southern runway expansion may warrant further investigation. In this instance, an alternative option post-southern runway

implementation must also be agreed upon as part of a business case analysis in order to make ES3 and ES3a a feasible option.

7.9.4 The following feasible options remain after the sifting and Multi-criteria Assessments:

- **Western Section:** WS1, WS2, WS3 and WS4;
- **Middle Section:** MS2, MS3 and MS4; and
- **Eastern Section:** ES1, ES2, ES3 ES3a, ES12 and ES17.

7.9.5 These remaining feasible options provide an informed guide to potential alignments based on current constraints. Together they structure a search corridor within which planning policies and decisions may be taken and specific route identification, detailed alignment and design work and consultation of a CWLR route can be undertaken.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 Refined Area of Search

- 8.1.1 A refined Area of Search has been developed based on the Route Option identification, Sifting and MCA work undertaken in this study. The refined Area of Search corridor (see [Figure 16](#)) allows for the remaining live route options, along with any combination or variation within, listed in Section 7.9 of this report to be further considered in more detail.
- 8.1.2 Engagement with the major Stakeholders (Crawley Borough Council, Environment Agency, Homes England, Horsham District Council and West Sussex County Council) has indicated that the refined Area of Search will be acceptable to all of the major stakeholders, with the exception of Gatwick Airport Limited.
- 8.1.3 As discussed in Section 7.9 of this report, it is accepted that additional future design and financial business case work will be required in order to determine if Option ES3 or ES3a could ultimately be implemented. As such, in order to differentiate this, a separate Area of Search has been defined for this section which is shown in [Figure 16](#) as a red boundary.

Figure 16. Refined CWLR northern Section Area of Search



- 8.1.4 A more detailed plan showing the refined Area of Search corridor is shown in [Appendix G](#).

8.2 Conclusions

- 8.2.1 This study set out to refine the Area of Search corridor for the northern section of the Crawley Western Link Road (between Charlwood Road and the A23 London Road) such that the majority of the stakeholders, Crawley Borough Council (CBC); Horsham District Council (HDC); and West Sussex County Council (WSCC), can reach agreement on this search corridor. Gatwick Airport Limited (GAL) objected to the defined Area of Search corridor and provided comments which are included in [Appendix H](#) along with SYSTRA’s response.
- 8.2.2 The study has been able to refine the Area of Search corridor, such that the overlap between the safeguarded land related to a Gatwick Southern Runway is significantly reduced and reflective of the required future design development that will be required for both the CWLR and the Gatwick Southern Runway design.

8.2.3 It is noted that at the Eastern end there has not been such a significant reduction in the overlap of the two areas. This is to allow for further exploration of the possibility of short term Options like ES3 or ES3a which could possibly be implemented prior to the potential future Gatwick southern runway expansion. This area has been identified by a separate interim Area of Search corridor.


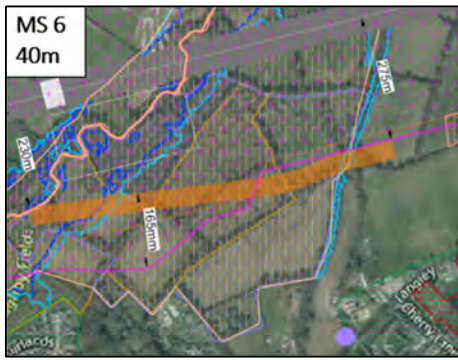
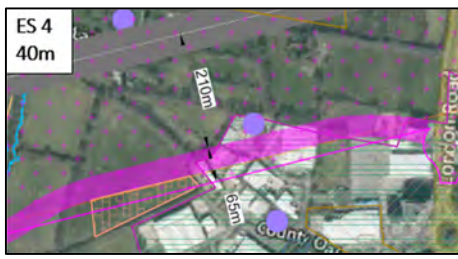
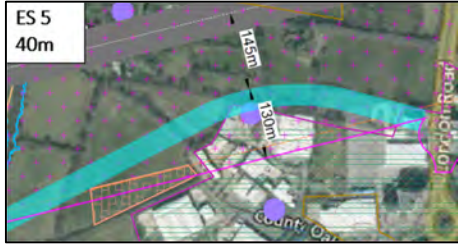
8.3 Next Steps

8.3.1 Whilst it is considered that this study provides robust evidence to support the refinement of the Area of Search it is acknowledged that the next steps should aim to:

- Collect further information such as in relation to flood plain, land ownership and forecasted traffic data.
- Conduct further engagement stages with stakeholders including landowners and statutory bodies.
- Conduct a feasibility stage to identify a preferred CWLR alignment which takes into account the further data collected and the outcomes of the further stakeholders' engagement.

Appendix A – Constraints Map

Appendix B – Sifting Reasons

SIFTING CRITERIA	ROUTE OPTION
<p>Considerable Safeguarded Land Encroachment – Encroachment into the safeguarded land which is likely to intrude into the operational airport area and affect the ability of GAL to provide an expanded southern Runway design.</p>	 <p>WS 5 40m</p>
<p>Considerable Safeguarded Land Encroachment – Encroachment into the safeguarded land which is likely to intrude into the operational airport area and affect the ability of GAL to provide an expanded southern Runway design.</p>	 <p>MS 6 40m</p>
<p>Considerable Safeguarded Land Encroachment – Encroachment into the safeguarded land which is likely to intrude into the operational airport area and affect the ability of GAL to provide an expanded southern Runway design.</p>	 <p>ES 4 40m</p>
<p>Considerable Safeguarded Land Encroachment – Encroachment into the safeguarded land which is likely to intrude into the operational airport area and affect the ability of GAL to provide an expanded southern Runway design.</p> <p>Pairwise comparison There are alternative options (ES3 and ES3a) which have all the same negative aspects but with additional positive aspects (e.g. no impact on listed building), whilst also considering the strategic stage of the scheme which we are currently at which doesn't preclude future iteration and alterations being explored.</p>	 <p>ES 5 40m</p>

SIFTING CRITERIA

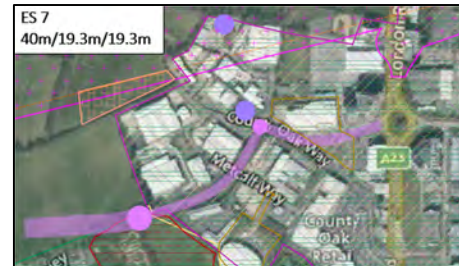
ROUTE OPTION

Inadequate Public transport and Pedestrian/cycle provision

The CWLR is seen as a corridor which prioritises sustainable transport. Not being able to provide this due to cross-sectional constraints is considered a sifting criteria.

Pairwise comparison

There is an alternative option (ES8) which has all the same negative aspects but with additional positive aspects (e.g. wider cross-section), whilst also considering the strategic stage of the scheme which we are currently at which doesn't preclude future iteration and alterations being explored.

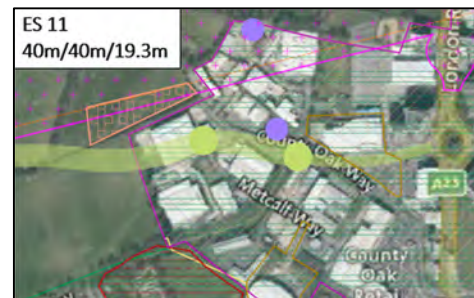


Inadequate Public transport and Pedestrian/cycle provision

The CWLR is seen as a corridor which prioritises sustainable transport. Not being able to provide this due to cross-sectional constraints is considered a sifting criteria.

Pairwise comparison

There is an alternative option (ES12) which has all the same negative aspects but with additional positive aspects (e.g. wider cross-section), whilst also considering the strategic stage of the scheme which we are currently at which doesn't preclude future iteration and alterations being explored.



Inadequate Public transport and Pedestrian/cycle provision

The CWLR is seen as a corridor which prioritises sustainable transport. Not being able to provide this due to cross-sectional constraints is considered a sifting criteria.

Pairwise comparison

There is an alternative option (ES12) which has all the same negative aspects but with additional positive aspects (e.g. wider cross-section), whilst also considering the strategic stage of the scheme which we are currently at which doesn't preclude future iteration and alterations being explored.



SIFTING CRITERIA

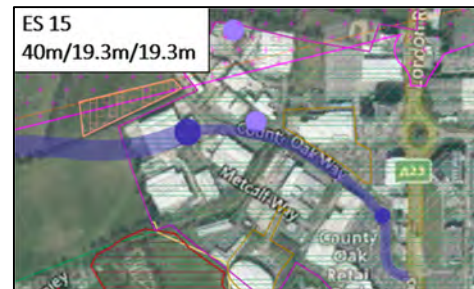
ROUTE OPTION

Inadequate Public transport and Pedestrian/cycle provision

The CWLR is seen as a corridor which prioritises sustainable transport. Not being able to provide this due to cross-sectional constraints is considered a sifting criteria.

Pairwise comparison

There is an alternative option (ES17) which has all the same negative aspects but with additional positive aspects (e.g. wider cross-section), whilst also considering the strategic stage of the scheme which we are currently at which doesn't preclude future iteration and alterations being explored.



Pairwise comparison

There is an alternative option (ES17) which has all the same negative aspects but with additional positive aspects, whilst also considering the strategic stage of the scheme which we are currently at which doesn't preclude future iteration and alterations being explored

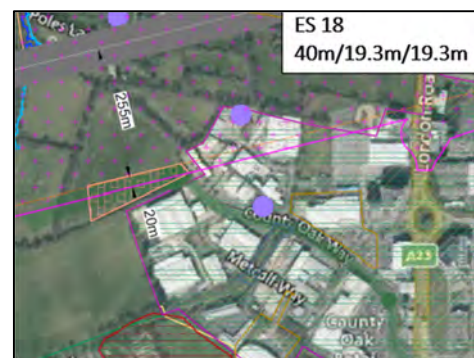


Inadequate Public transport and Pedestrian/cycle provision

The CWLR is seen as a corridor which prioritises sustainable transport. Not being able to provide this due to cross-sectional constraints is considered a sifting criteria.

Pairwise comparison

There is an alternative option (ES17) which has all the same negative aspects but with additional positive aspects (e.g. wider cross-section), whilst also considering the strategic stage of the scheme which we are currently at which doesn't preclude future iteration and alterations being explored.



SIFTING CRITERIA

ROUTE OPTION

Pairwise comparison

There is an alternative option (ES17) which has all the same negative aspects but with additional positive aspects, whilst also considering the strategic stage of the scheme which we are currently at which doesn't preclude future iteration and alterations being explored



Appendix G – Refined Area of Search

Appendix H – Gatwick Airport Limited Comments and Response

Introduction:

This Appendix aims to evaluate and provide responses and context to the comments that Gatwick Airport Limited (GAL) provided to this report on 22/11/2022 in the letter titled ‘*Crawley Western Link – Final Presentation and Reports September 2022*’.

Background:

As was the case for all Major Stakeholders, Gatwick Airport Limited was presented with an overview of this study, the process that helped finalise the Area of Search and the Area of Search itself. Following the circulation of the report and relative appendices (on the 21st September 2022), GAL provided their comments on 22nd November 2022. The late arrival of these comments has led to the inclusion of this appendix rather than revisiting the full report.

The following table provides a summary of the efforts made to engage with Gatwick Airport Limited since the circulation of the report.

DATE	REASON FOR CONTACTING GAL	RESPONSE
21/09/2022	Final meeting slides and report shared with Gatwick Airport Limited to provide them with the possibility of commenting	Gatwick Airport Limited replied stating that they will provide comments by 06/10/2022 - no comments were provided
13/10/2022	GAL chased via email for comments on the final reports	No response provided by GAL
21/10/2022	GAL chased via email for comments on the final reports	No response provided by GAL
10/11/2022	Crawley Borough Council chased GAL via email for comments on the final reports	No response provided by GAL
16/11/2022	GAL chased via email for comments on the final reports	No response provided by GAL
18/11/2022	GAL chased via phone for comments on the final reports	Gatwick Airport Limited replied stating that they will provide comments by 21/11/2022 - no comments were provided

DATE	REASON FOR CONTACTING GAL	RESPONSE
22/11/2022	GAL chased via email for comments on the final reports	Comments provided

GAL Comments:

Gatwick Airport Limited provided a number of comments on the report related to vocabulary and phrasing which have generally been addressed in the report. Two comments stood out as particularly important for the context of the report and outcome Area of Search. Those comments are summarised below:

1. GAL objected to both Areas of Search due to their significant encroachment into safeguarded land. Along with this comment, GAL requested the removal of options ES3 and ES3A in order to reduce the encroachment of the Areas of Search in the safeguarded land. Although noting that with the options removed their objections would still stand.
2. GAL questioned the robustness of the sifting analysis and MCA. GAL suggested that the encroachment into safeguarded land should be accounted for during this analysis to fully capture GAL requirements and the risk of providing routes that significantly encroach into the safeguarded land.

Responses:

In response to the first comment, ES3 and ES3A have been retained considering the positive effects they would provide as interim route options before the possible expansion of GAL through the introduction of a southern runway. These two options would completely avoid the existing County Oak industrial estate by staying further north and would not require any commercial building to be acquired/removed. As stated in the report (Paragraph 7.9.3), *'it is acknowledged that these options are unlikely to be able to coexist with a Gatwick southern runway, but the possible significant interim positives prior to a potential future southern runway expansion may warrant further investigation. In this instance, an alternative option post-southern runway implementation must also be agreed upon as part of a business case analysis in order to make ES3 and ES3a a feasible option.'* This statement confirms that options ES3 and ES3A would represent only temporary solutions until such time that GAL expansion through a southern runway is brought forward. In case these options are considered further, a business case should be developed to evaluate the feasibility and economic benefits of providing an interim route which will be replaced by a post-expansion route. Based on the current uncertainty of if or when Gatwick will expand, it is believed that these two routes cannot be sifted out and deserve to be evaluated along with the other route options in the sifting analysis and MCA.

With regards to the second comment, the MCA and weighting were presented and discussed with the major Stakeholders (including GAL) via a Microsoft Teams meeting held on 21/07/2022. The MCA did not directly include assessment of the encroachment into the safeguarded land because this criteria was adopted during the initial development of the individual route options and sifting analysis. In order not to double count the National safeguarding sifting criteria, encroachment into the safeguarded land

was not repeated in the MCA scoring. The encroachment was adopted at early stages in the routes' development to ensure that no permanent options (noting ES3 and ES3A have been retained as temporary options) would substantially undermine the future possibility of GAL expansion. As stated in paragraphs 5.2.7, 5.2.18 and 5.3.23, for both Western, Middle and Eastern sections the study identified options for consideration that spanned further north than those currently included in the report. These additional options were discounted and not brought forward in the study because of their substantial encroachment into safeguarded land and because they would have represented a risk for GAL's future expansion plan. GAL encroachment was also adopted in the sifting process as a sifting criteria and which led to the removal of a number of options that would have limited GAL's expansion plan. Considering that the encroachment into the safeguarded land represented a fundamental criteria in the route options development and a sifting criteria in the sifting process, it is believed that the impact on the safeguarded land has been thoroughly considered and it should not be included in the MCA process.

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The SYSTRA logo is rendered in a bold, red, sans-serif typeface. The letters are thick and blocky, with a slightly irregular, hand-drawn quality. The 'S' and 'Y' are particularly prominent, with the 'Y' having a unique shape where the two bottom strokes are separated. The 'T' is also thick and blocky. The 'R' and 'A' are similarly styled. The overall appearance is clean, modern, and professional.