



Stage 2 Summary Document

CAP1616 Stage 2 Develop and Assess

Appendix A – Design Options Evolution

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1. Design Options Evolution

1.1 Introduction

Table 2 shows the evolution of the design options through Stage 2 of the CAP1616 process. A Full Options Appraisal (FOA), in Stage 3, will consider the shortlist of design options identified from the work in Stage 2.

1.2 Design Options Report (DOR)

The first step in refining the comprehensive list of design options was the consideration of viability, as presented in the DOR. The DOR divided the design options into three categories, as shown in table 1 below. This process is explained in full in section 5.14 of the DOR and section 16 of the Stage 2 Summary Document.

Table 1 – Viability classification

| Classification | Criteria | Outcome |
|----------------------------|---|--|
| Unviable | Would not comply with PANS-OPS design criteria or did not have a supporting safety justification for non-compliance. | Not progressed to Design Principle Evaluation (DPE). |
| Viable but poor fit | Failed to meet the requirements of the three design principles with which all design options 'must' comply (Safety, Policy and Capacity). | Not progressed to full DPE, although a rationale and initial evaluation against the three 'must have' design principles is included in both the DOR and the DPE. |
| Viable and good fit | Expected to meet the three design principles with which all design options 'must' comply (Safety, Policy and Capacity). | Progressed to full DPE. |

1.3 Design Principle Evaluation (DPE)

The DPE considered all 'viable and good fit' design options, to assess their alignment against the design principles. Those options that best aligned with the design principles were accepted and progressed to the Initial Options Appraisal (IOA). The acceptance/rejection process is described at section 4 of the DPE.

1.4 Initial Options Appraisal (IOA)

This IOA serves as the foundation for a fuller and more quantitative assessment later in the CAP1616 process. The IOA assessed the merits of the accepted DPE design options (including do minimum options) compared to a baseline do nothing scenario. For the IOA, required at Step 2B, high-level criteria were determined and a qualitative assessment or, if available and proportionate, quantitative analysis against each design option was conducted. The design options progressed to the IOA were tested against the criteria contained in CAP1616 (Appendix E, Table E2) and areas of tranquillity and biodiversity have been mapped for further assessment at Stage 3. To further support the evaluation of options, a quantitative element was introduced to the assessments of some measures. For further details see section 2 of the IOA.

Following the completion of the IOA assessment, each design option was annotated with a RAG (red, amber, green) status. The classification of options was based on the professional judgement of the assessor/change sponsor, considering each design option's overall performance against the defined criteria. The colouring of these options as Preferred, Favourable, Acceptable and Rejected is explained in section 2.5.2 in the IOA. Design options categorised as Preferred, Favourable or Acceptable form the shortlisted design options.

Table 2 – Departures

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|--------------------------------|----------|------------------------------|-----------------------|-----------------------------|---------------------------|
| Runways 23R/23L - North | | | | | |
| 23R/23L | North | 1A | Viable and good fit | Accepted | Favourable |
| 23R/23L | North | 1B | Viable and good fit | Accepted 23R only | Rejected 23R only |
| | | | | Rejected 23L only | - |
| 23R/23L | North | 2B | Viable and good fit | Accepted | Acceptable |
| 23R/23L | North | 3 | Viable and good fit | Accepted | Rejected |
| 23R/23L | North | 4A | Viable and good fit | Accepted | Preferred |
| 23R/23L | North | 4B | Viable and good fit | Accepted | Rejected |
| 23R/23L | North | A5 (Originally Option 5) | Viable but poor fit | - | - |
| 23R/23L | North | 6A | Viable and good fit | Accepted | Rejected |
| 23R/23L | North | 6B | Viable and good fit | Accepted | Rejected |
| 23R/23L | North | 7 | Viable and good fit | Accepted | Rejected |
| 23R/23L | North | B8 (Originally Option 2A) | Viable but poor fit | - | - |
| 23R/23L | North | C9 | Viable but poor fit | - | - |
| 23R/23L | North | D10 | Viable but poor fit | - | - |
| 23R/23L | North | E11 | Viable but poor fit | - | - |
| 23R/23L | North | F12 | Viable but poor fit | - | - |
| 23R/23L | North | U | Unviable | - | - |

| | | | | | |
|--|------------|----|---------------------|-------------------|---------------------|
| Runways 23R/23L - East - Right and Left Turns | | | | | |
| 23R/23L | East Right | 1A | Viable and good fit | Accepted | Preferred |
| 23R/23L | East Right | 1B | Viable and good fit | Rejected | - |
| 23R/23L | East Right | 1C | Viable and good fit | Accepted 23L only | Acceptable 23L only |
| | | | | Rejected 23R only | - |
| 23R/23L | East Right | 2 | Viable and good fit | Rejected | - |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|---------|------------|-----------------------------|-----------------------|--|--|
| 23R/23L | East | A3 (Originally Option 3) | Viable but poor fit | | |
| 23R/23L | East Right | 4A | Viable and good fit | Accepted 23R only Rejected 23L only | Acceptable 23R only - |
| 23R/23L | East Right | 4B | Viable and good fit | Accepted | Favourable 23L only Rejected 23R only |
| 23R/23L | East Right | 5 | Viable and good fit | Accepted 23R only Rejected 23L only | Favourable 23R only - |
| 23R/23L | East Left | 6A | Viable and good fit | Accepted 23L only | Favourable 23L only |
| 23R/23L | East Left | 6B | Viable and good fit | Accepted | Rejected 23L only Preferred 23R only |
| 23R/23L | East Left | 6C | Viable and good fit | Accepted | Rejected 23L only Favourable 23R only |
| 23R/23L | East | B7 | Viable but poor fit | - | - |
| 23R/23L | East Left | 8A | Viable and good fit | Rejected 23R only Accepted 23L only | - Preferred 23L only |
| 23R/23L | East Left | 8B | Viable and good fit | Rejected | - |
| 23R/23L | East Left | 8C | Viable and good fit | Rejected 23R only Accepted 23L only | - Acceptable 23L only |
| 23R/23L | East | C9 | Viable but poor fit | - | - |
| 23R/23L | East | D10 | Viable but poor fit | - | - |
| 23R/23L | East | U | Unviable | - | - |

| Runways 23R/23L - South | | | | | |
|-------------------------|-------|----|---------------------|----------|---|
| 23R/23L | South | 1 | Viable and good fit | Accepted | Acceptable |
| 23R/23L | South | 2A | Viable and good fit | Accepted | Rejected |
| 23R/23L | South | 2B | Viable and good fit | Accepted | Preferred 23R only Favourable 23L only |
| 23R/23L | South | 3 | Viable and good fit | Rejected | - |
| 23R/23L | South | 4A | Viable and good fit | Accepted | Rejected |
| 23R/23L | South | 4B | Viable and good fit | Rejected | - |
| 23R/23L | South | 4C | Viable and good fit | Accepted | Preferred |
| 23R/23L | South | 5A | Viable and good fit | Accepted | Acceptable |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|---------|----------|-----|-----------------------|-----------------------------|---------------------------|
| 23R/23L | South | 5B | Viable and good fit | Accepted | Favourable 23R only |
| | | | | | Preferred 23L only |
| 23R/23L | South | 5C | Viable and good fit | Rejected 23R only | - |
| | | | | Accepted 23L only | Favourable 23L only |
| 23R/23L | South | 6 | Viable and good fit | Accepted | Rejected 23L only |
| | | | | | Favourable 23R only |
| 23R/23L | South | 7A | Viable and good fit | Rejected | - |
| 23R/23L | South | 7B | Viable and good fit | Rejected | - |
| 23R/23L | South | A8 | Viable but poor fit | - | - |
| 23R/23L | South | B9 | Viable but poor fit | - | - |
| 23R/23L | South | C10 | Viable but poor fit | - | - |
| 23R/23L | South | D11 | Viable but poor fit | - | - |
| 23R/23L | South | U | Unviable | - | - |

| Runways 23R/23L - South-west | | | | | |
|------------------------------|------------|----|---------------------|-------------------|---------------------|
| 23R/23L | South-west | 1A | Viable and good fit | Accepted | Preferred |
| 23R/23L | South-west | 1B | Viable and good fit | Accepted 23R only | Acceptable 23R only |
| | | | | Rejected 23L only | - |
| 23R/23L | South-west | 1C | Viable and good fit | Accepted | Acceptable 23L only |
| | | | | | Rejected 23R only |
| 23R/23L | South-west | 1D | Viable and good fit | Accepted | Preferred |
| 23R/23L | South-west | 2A | Viable and good fit | Rejected | - |
| 23R/23L | South-west | 2B | Viable and good fit | Rejected | - |
| 23R/23L | South-west | 3A | Viable and good fit | Rejected | - |
| 23R/23L | South-west | 3B | Viable and good fit | Accepted 23R only | Rejected 23R only |
| | | | | Rejected 23L only | - |
| 23R/23L | South-west | 3C | Viable and good fit | Accepted 23R only | Rejected 23R only |
| | | | | Rejected 23L only | - |
| 23R/23L | South-west | 4B | Viable and good fit | Rejected | - |
| 23R/23L | South-west | 5 | Viable and good fit | Rejected | - |
| 23R/23L | South-west | 6 | Viable and good fit | Accepted | Rejected |
| 23R/23L | South-west | 7A | Viable and good fit | Accepted | Preferred |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|---------|------------|-------------------------------|-----------------------|-----------------------------|---------------------------|
| 23R/23L | South-west | 7B | Viable and good fit | Accepted | Favourable |
| 23R/23L | South-west | 8 | Viable and good fit | Accepted | Rejected |
| 23R/23L | South-west | 9 | Viable and good fit | Rejected | - |
| 23R/23L | South-west | 10 | Viable and good fit | Accepted 23R only | Rejected 23R only |
| | | | | Rejected 23L only | - |
| 23R/23L | South-west | A11 (Originally Option 4a) | Viable but poor fit | - | - |
| 23R/23L | South-west | B12 | Viable but poor fit | - | - |
| 23R/23L | South-west | C13 | Viable but poor fit | - | - |
| 23R/23L | South-west | D14 | Viable but poor fit | - | - |
| 23R/23L | South-west | E15 | Viable but poor fit | - | - |
| 23R/23L | South-west | F16 | Viable but poor fit | - | - |
| 23R/23L | South-west | U | Unviable | - | - |

| Runways 23R/23L - West | | | | | |
|------------------------|------|----|-------------------------------------|----------|---------------------|
| 23R/23L | West | A1 | Viable but poor fit | - | - |
| 23R/23L | West | 2 | Viable and good fit | Rejected | - |
| 23R/23L | West | 3B | Viable and good fit | Rejected | - |
| 23R/23L | West | 4 | Viable and good fit | Rejected | - |
| 23R/23L | West | 5A | Viable and good fit | Rejected | - |
| 23R/23L | West | 5B | Viable and good fit | Rejected | - |
| 23R/23L | West | 6 | Viable and good fit | Rejected | - |
| 23R/23L | West | 7 | Viable and good fit | Accepted | Preferred 23R only |
| | | | | | Favourable 23L only |
| 23R/23L | West | 8 | Viable and good fit | Accepted | Acceptable |
| 23R/23L | West | 9 | Viable and good fit - new option | Accepted | Preferred 23L only |
| | | | | | Favourable 23R only |
| 23R/23L | West | 10 | Viable and good fit - new option | Accepted | Rejected |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|---------|----------|-------------------------------|----------------------------------|-----------------------------|---------------------------|
| 23R/23L | West | 11 | Viable and good fit - new option | Accepted | Rejected |
| 23R/23L | West | 12 | Viable and good fit - new option | Accepted | Rejected |
| 23R/23L | West | B13 (Originally Option 3A) | Viable but poor fit | - | - |
| 23R/23L | West | C14 | Viable but poor fit | - | - |
| 23R/23L | West | D15 | Viable but poor fit | - | - |
| 23R/23L | West | U | Unviable | - | - |

| Runways 05L/05R - North | | | | | |
|-------------------------|-------|-----------------------------|---------------------|----------|------------|
| 05L/R | North | 1 | Viable and good fit | Accepted | Preferred |
| 05L/R | North | A2 (Originally Option 2) | Viable but poor fit | - | - |
| 05L/R | North | 3 | Viable and good fit | Rejected | - |
| 05L/R | North | 4 | Viable and good fit | Accepted | Favourable |
| 05L/R | North | B5 | Viable but poor fit | - | - |
| 05L/R | North | C6 | Viable but poor fit | - | - |
| 05L/R | North | C7 | Viable but poor fit | - | - |
| 05L/R | North | U | Unviable | - | - |

| Runways 05L/05R - East | | | | | |
|------------------------|------|-----------------------------|---------------------|----------|------------|
| 05L/R | East | 1 | Viable and good fit | Accepted | Rejected |
| 05L/R | East | A2 (Originally Option 2) | Viable but poor fit | - | - |
| 05L/R | East | B3 (Originally Option 3) | Viable but poor fit | - | - |
| 05L/R | East | 4 | Viable and good fit | Accepted | Acceptable |
| 05L/R | East | 5 | Viable and good fit | Accepted | Favourable |
| 05L/R | East | 6 | Viable and good fit | Accepted | Rejected |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|--------|----------|-----|-----------------------|-----------------------------|---------------------------|
| 05L/R | East | 7 | Viable and good fit | Accepted | Rejected |
| 05L/R | East | 8 | Viable and good fit | Accepted | Preferred |
| 05L/R | East | C9 | Viable but poor fit | - | - |
| 05L/R | East | D10 | Viable but poor fit | - | - |
| 05L/R | East | E11 | Viable but poor fit | - | - |
| 05L/R | East | F12 | Viable but poor fit | - | - |
| 05L/R | East | U | Unviable | - | - |

Runways 05L/05R - South - Right and Left Turns

| | | | | | |
|-------|-------------|-----|----------------------------------|----------|------------|
| 05L/R | South Right | 1 | Viable and good fit | Accepted | Acceptable |
| 05L/R | South Right | 2A | Viable and good fit | Rejected | - |
| 05L/R | South Right | 2B | Viable and good fit | Rejected | - |
| 05L/R | South Right | 3 | Viable and good fit | Accepted | Preferred |
| 05L/R | South Right | 4 | Viable and good fit | Rejected | - |
| 05L/R | South Right | 5 | Viable and good fit | Rejected | - |
| 05L/R | South Right | 6A | Viable and good fit - new option | Accepted | Favourable |
| 05L/R | South Right | 6B | Viable and good fit | Rejected | - |
| 05L/R | South Left | 7A | Viable and good fit | Accepted | Acceptable |
| 05L/R | South Left | 7B | Viable and good fit | Rejected | - |
| 05L/R | South Left | 8 | Viable and good fit | Accepted | Preferred |
| 05L/R | South Left | 9 | Viable and good fit | Accepted | Favourable |
| 05L/R | South Left | 10 | Viable and good fit | Accepted | Rejected |
| 05L/R | South | A11 | Viable but poor fit | - | - |
| 05L/R | South | B12 | Viable but poor fit | - | - |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|--------|----------|-----|-----------------------|-----------------------------|---------------------------|
| 05L/R | South | C13 | Viable but poor fit | - | - |
| 05L/R | South | U1 | Unviable | - | - |

| Runways 05L/05R - West | | | | | |
|------------------------|------|-----------------------------|---------------------|-------------------|---------------------|
| 05L/R | West | 1 | Viable and good fit | Accepted | Preferred |
| 05L/R | West | A2 (Originally Option 2) | Viable but poor fit | - | - |
| 05L/R | West | 3 | Viable and good fit | Rejected | - |
| 05L/R | West | 4A | Viable and good fit | Rejected | - |
| 05L/R | West | 4B | Viable and good fit | Rejected 05L only | - |
| | | | | Accepted 05R only | Acceptable 05R only |
| 05L/R | West | 5A | Viable and good fit | Rejected | - |
| 05L/R | West | 5B | Viable and good fit | Rejected | - |
| 05L/R | West | 6A | Viable and good fit | Accepted | Acceptable 05L only |
| | | | | | Rejected 05R only |
| 05L/R | West | 6B | Viable and good fit | Rejected | - |
| 05L/R | West | 7 | Viable and good fit | Accepted | Favourable |
| 05L/R | West | B8 | Viable but poor fit | - | - |
| 05L/R | West | C9 | Viable but poor fit | - | - |
| 05L/R | West | U | Unviable | - | - |

| Runways 05L/05R - South-west | | | | | |
|------------------------------|------------|----|---------------------|-------------------|---------------------|
| 05L/R | South-west | 1 | Viable and good fit | Rejected 05L only | - |
| | | | | Accepted 05R only | Favourable 05R only |
| 05L/R | South-west | 2A | Viable and good fit | Rejected 05L only | - |
| | | | | Accepted 05R only | Rejected 05R only |
| 05L/R | South-west | 2B | Viable and good fit | Rejected 05L only | - |
| | | | | Accepted 05R only | Acceptable 05R only |
| 05L/R | South-west | 3A | Viable and good fit | Rejected 05L only | - |
| | | | | Accepted 05R only | Rejected 05R only |
| 05L/R | South-west | 3B | Viable and good fit | Rejected 05L only | - |
| | | | | Accepted 05R only | Rejected 05R only |
| 05L/R | South-west | 4A | Viable and good fit | Rejected | - |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|--------|------------|-----|-----------------------|-----------------------------|---------------------------|
| 05L/R | South-west | 4B | Viable and good fit | Accepted | Favourable 05L only |
| | | | | | Rejected 05R only |
| 05L/R | South-west | 5 | Viable and good fit | Accepted | Preferred |
| 05L/R | South-west | A6 | Viable but poor fit | - | - |
| 05L/R | South-west | B7 | Viable but poor fit | - | - |
| 05L/R | South-west | C8 | Viable but poor fit | - | - |
| 05L/R | South-west | U | Unviable | - | - |

Table 3 – Arrivals

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|---|----------|-------------------------------|-----------------------|-----------------------------|---------------------------|
| Runways 23R/23L North - 3,500ft FAF Transition | | | | | |
| 23R/23L | North | 1A | Viable and good fit | Accepted | Rejected |
| 23R/23L | North | A2 (Originally option 2) | Viable but poor fit | - | - |
| 23R/23L | North | 3A | Viable and good fit | Rejected | - |
| 23R/23L | North | B4 (Originally option 4) | Viable but poor fit | - | - |
| 23R/23L | North | C5 (Originally option 5) | Viable but poor fit | - | - |
| 23R/23L | North | 6A | Viable and good fit | Rejected | - |
| 23R/23L | North | 7A | Viable and good fit | Accepted | Preferred |
| 23R/23L | North | 8A | Viable and good fit | Accepted | Acceptable |
| 23R/23L | North | D9 | Viable but poor fit | - | - |
| 23R/23L | North | E10 | Viable but poor fit | - | - |
| 23R/23L | North | 11A | Viable and good fit | Accepted | Favourable |
| 23R/23L | North | F12 (Originally option 12) | Viable but poor fit | - | - |
| 23R/23L | North | U | Unviable | - | - |

| | | | | | |
|---|-------|-----------------------------|---------------------|----------|---|
| Runways 23R/23L North - 3,000ft FAF Transition | | | | | |
| 23R/23L | North | 1B | Viable and good fit | Rejected | - |
| 23R/23L | North | A2 (Originally option 2) | Viable but poor fit | - | - |
| 23R/23L | North | 3B | Viable and good fit | Rejected | - |
| 23R/23L | North | B4 (Originally option 4) | Viable but poor fit | - | - |
| 23R/23L | North | C5 (Originally option 5) | Viable but poor fit | - | - |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|---------|----------|-----|-----------------------|-----------------------------|---------------------------|
| 23R/23L | North | 6B | Viable and good fit | Rejected | - |
| 23R/23L | North | 7B | Viable and good fit | Accepted | Preferred |
| 23R/23L | North | 8B | Viable and good fit | Rejected | - |
| 23R/23L | North | 9B | Viable and good fit | Rejected | - |
| 23R/23L | North | 10B | Viable and good fit | Rejected | - |
| 23R/23L | North | 11B | Viable and good fit | Accepted | Favourable |
| 23R/23L | North | 12B | Viable and good fit | Rejected | - |
| 23R/23L | North | U1 | Unviable | - | - |

| Runways 23R/23L South - 3,500ft FAF Transition | | | | | |
|--|-------|---------------------------|---------------------|-------------------|-------------------|
| 23R/23L | South | 1A | Viable and good fit | Accepted | Favourable |
| 23R/23L | South | 2A | Viable and good fit | Rejected | - |
| 23R/23L | South | A3 | Viable but poor fit | - | - |
| 23R/23L | South | B4 (Formerly option 4) | Viable but poor fit | - | - |
| 23R/23L | South | C5 (Formerly Option 5) | Viable but poor fit | - | - |
| 23R/23L | South | 6A | Viable and good fit | Accepted | Acceptable |
| 23R/23L | South | 7A | Viable and good fit | Rejected | - |
| 23R/23L | South | 8A | Viable and good fit | Accepted 23R only | Rejected 23R only |
| | | | | Rejected 23L only | |
| 23R/23L | South | 9A | Viable and good fit | Accepted | Preferred |
| 23R/23L | South | U | Unviable | - | - |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|---|----------|-----------------------------|-----------------------|-----------------------------|---------------------------|
| Runways 23R/23L South - 3,000ft FAF Transition | | | | | |
| 23R/23L | South | 1B | Viable and good fit | Accepted 23R only | Favourable 23R only |
| | | | | Rejected 23L only | |
| 23R/23L | South | 2B | Viable and good fit | Rejected | - |
| 23R/23L | South | A3 | Viable but poor fit | - | - |
| 23R/23L | South | B4 (Originally option 4) | Viable but poor fit | - | - |
| 23R/23L | South | C5 (Originally Option 5) | Viable but poor fit | - | - |
| 23R/23L | South | 6B | Viable and good fit | Accepted | Rejected 23R only |
| | | | | | Favourable 23L only |
| 23R/23L | South | 7B | Viable and good fit | Rejected | - |
| 23R/23L | South | 8B | Viable and good fit | Accepted | Acceptable 23R only |
| | | | | | Preferred 23L only |
| 23R/23L | South | 9B | Viable and good fit | Accepted 23R only | Preferred 23R only |
| | | | | Rejected 23L only | - |
| 23R/23L | South | U | Unviable | - | - |

| | | | | | |
|---|-------|-----------------------------|---------------------|-------------------|---------------------|
| Runways 05L/05R North - 3,000ft FAF Transition | | | | | |
| 05L/05R | North | 1A | Viable and good fit | Accepted 05L only | Favourable 05L only |
| | | | | Rejected 05R only | |
| 05L/05R | North | 2A | Viable and good fit | Rejected | - |
| 05L/05R | North | A3 (Originally option 3) | Viable but poor fit | - | - |
| 05L/05R | North | B4 (Originally option 4) | Viable but poor fit | - | - |
| 05L/05R | North | C5 (Originally option 5) | Viable but poor fit | - | - |
| 05L/05R | North | 6A | Viable and good fit | Rejected | - |
| 05L/05R | North | 7A | Viable and good fit | Rejected | - |
| 05L/05R | North | 8A | Viable and good fit | Accepted | Acceptable 05L only |
| | | | | | Favourable 05R only |
| 05L/05R | North | 9A | Viable and good fit | Accepted | Favourable 05L only |
| | | | | | Preferred 05R only |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|---------|----------|-----|-----------------------|-----------------------------|---------------------------|
| 05L/05R | North | D10 | Viable but poor fit | - | - |
| 05L/05R | North | E11 | Viable but poor fit | - | - |
| 05L/05R | North | F12 | Viable but poor fit | - | - |
| 05L/05R | North | U | Unviable | - | - |

| Runways 05L/05R North - 2,500ft FAF Transition | | | | | |
|--|-------|-----------------------------|---------------------|----------|---------------------|
| 05L/05R | North | 1B | Viable and good fit | Accepted | Preferred |
| 05L/05R | North | 2B | Viable and good fit | Rejected | - |
| 05L/05R | North | A3 (Originally Option 3) | Viable but poor fit | - | - |
| 05L/05R | North | B4 (Originally Option 4) | Viable but poor fit | - | - |
| 05L/05R | North | C5 (Originally Option 5) | Viable but poor fit | - | - |
| 05L/05R | North | 6B | Viable and good fit | Rejected | - |
| 05L/05R | North | 7B | Viable and good fit | Rejected | - |
| 05L/05R | North | 8B | Viable and good fit | Rejected | Acceptable 05L only |
| 05L/05R | North | 9B | Viable and good fit | Accepted | Favourable 05L only |
| 05L/05R | North | D10 | Viable but poor fit | - | - |
| 05L/05R | North | E11 | Viable but poor fit | - | - |
| 05L/05R | North | F12 | Viable but poor fit | - | - |
| 05L/05R | North | U | Unviable | - | - |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|---|----------|-----|-----------------------|-----------------------------|---------------------------|
| Runways 05L/05R North - 2,000ft FAF Transition | | | | | |
| 05L/05R | North | 7C | Viable and good fit | Rejected | - |
| 05L/05R | North | 12 | Viable and good fit | Rejected | - |
| 05L/05R | North | 13 | Viable and good fit | Accepted | Preferred |
| 05L/05R | North | U | Unviable | - | - |

| | | | | | |
|---|-------|-----------------------------|---------------------|----------|---|
| Runways 05L/05R South - 3,000ft FAF Transition | | | | | |
| 05L/05R | South | 1A | Viable and good fit | Rejected | - |
| 05L/05R | South | A2 (Originally option 2) | Viable but poor fit | - | - |
| 05L/05R | South | B3 (Originally option 3) | Viable but poor fit | - | - |
| 05L/05R | South | C4 (Originally Option 4) | Viable but poor fit | - | - |
| 05L/05R | South | D5 (Originally Option 5) | Viable but poor fit | - | - |
| 05L/05R | South | 6A | Viable and good fit | Rejected | - |
| 05L/05R | South | 7A | Viable and good fit | Rejected | - |
| 05L/05R | South | 8A | Viable and good fit | Rejected | - |
| 05L/05R | South | 9A | Viable and good fit | Rejected | - |
| 05L/05R | South | U | Unviable | - | - |

| | | | | | |
|---|-------|-----------------------------|---------------------|----------|-----------|
| Runways 05L/05R South - 2,500ft FAF Transition | | | | | |
| 05L/05R | South | 1B | Viable and good fit | Accepted | Preferred |
| 05L/05R | South | A2 (Originally option 2) | Viable but poor fit | - | - |
| 05L/05R | South | B3 (Originally option 3) | Viable but poor fit | - | - |
| 05L/05R | South | C4 (Originally option 4) | Viable but poor fit | - | - |

| Runway | Envelope | No. | Design Options Report | Design Principle Evaluation | Initial Options Appraisal |
|---------|----------|-----------------------------|-----------------------|-----------------------------|---------------------------|
| 05L/05R | South | D5 (Originally option 5) | Viable but poor fit | - | - |
| 05L/05R | South | 6B | Viable and good fit | Accepted | Acceptable |
| 05L/05R | South | 7B | Viable and good fit | Accepted | Favourable |
| 05L/05R | South | 8B | Viable and good fit | Rejected | - |
| 05L/05R | South | 9B | Viable and good fit | Accepted | Rejected |
| 05L/05R | South | U | Unviable | - | - |

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