Gatwick Airport Northern Runway Project

Design and Access Statement
Volume 3

Book 7

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Contents

5.0 DETAILED PROPOSAL BY ZONE

5.5 INTRODUCTION

The Masterplan

5.5.1 The masterplan which forms part of this DCO application represents a strategic stage of design. The indicative masterplan is shown on Figures 1 and 2. Further design has been undertaken to establish the feasibility of the individual components and the masterplan. This is set out in the following subsections throughout Volumes 2 to 4 of this DAS.

5.5.2 The level of design development varies depending on the type of work; the highways, water and airfield designs required greater technical definition to respond to regulatory and stakeholder requirements and are therefore more developed within this DAS, while the buildings are at an earlier stage of design. This provides the necessary flexibility going forward so detailed design can best cater to the needs at that point in time or for a specific tenant or user group.

5.5.3 Schedule 2 Requirements in the DCO sets out the design approval process which requires the design to be in accordance with the design principles set out in Appendix 1 of this DAS. This will include consideration of detailed elements including detailed built form, layout, and façade treatments as appropriate.

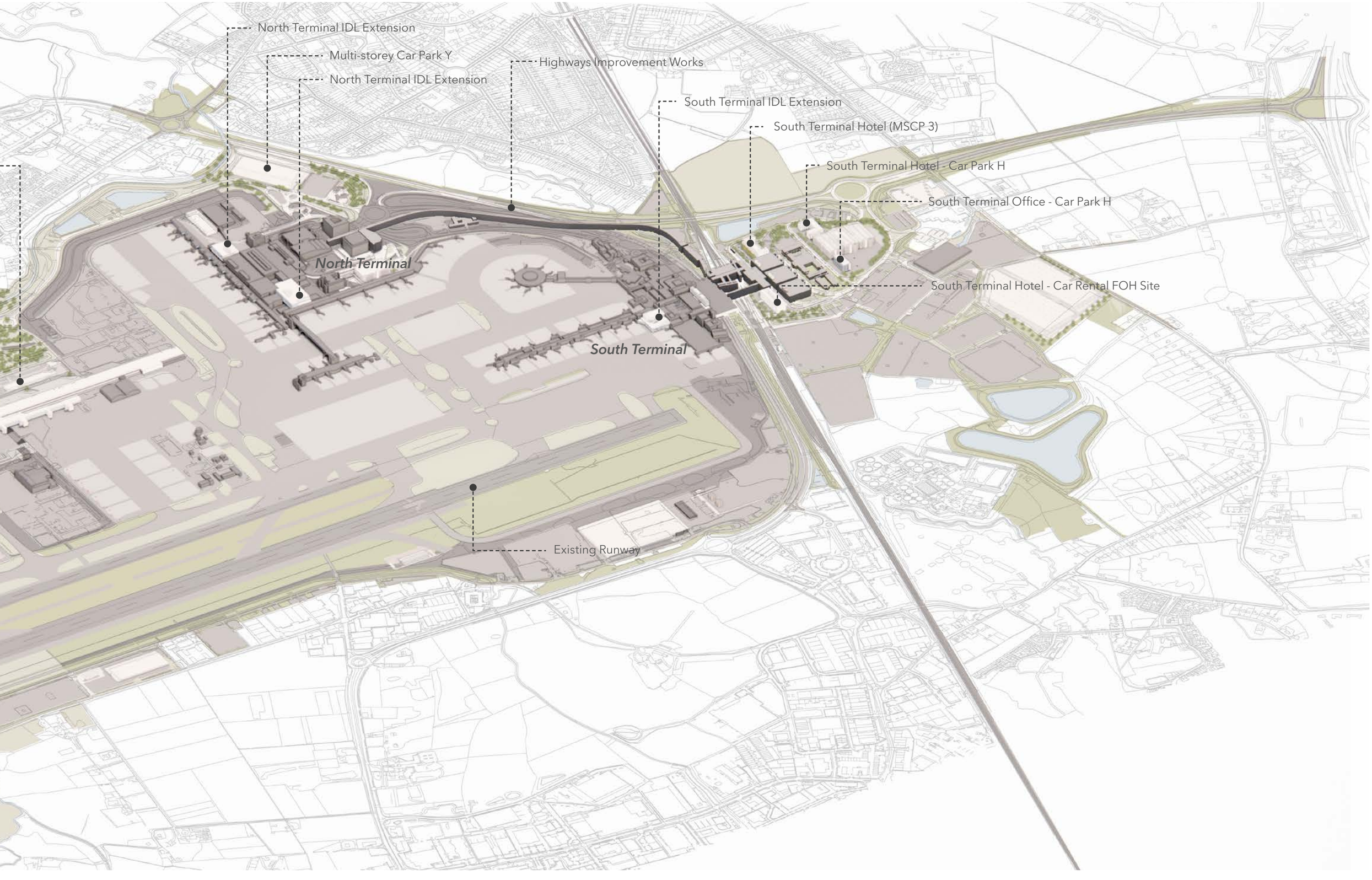
Status of Design

5.5.4 The land subject to the application for development consent extends to approximately 735 hectares.

5.5.5 In summary, the Project will provide for:

- amendments to the existing northern runway including repositioning its centreline 12 metres further north to enable dual runway operations.
- reconfiguration of taxiways.
- pier and stand alterations (including a indicative new pier); reconfiguration of other airfield facilities.
- extensions to the existing terminals (north and south).
- provision of additional hotel and office space.
- provision of reconfigured car parking, including new car parks.
- surface access (including highway) improvements.
- demolition and relocation of Central Area Recycling Enclosure. (CARE) facility.
- water treatment facilities.
- reconfiguration of existing utilities, including surface water, foul drainage and power.
- landscape/ecological planting and environmental mitigation.

Figure 1. *Overview showing Key Developments*


North Terminal IDL Extension
Multi-storey Car Park Y
North Terminal IDL Extension
Highways Improvement Works
South Terminal IDL Extension
South Terminal Hotel (MSCP 3)
South Terminal Hotel - Car Park H
South Terminal Office - Car Park H
South Terminal Hotel - Car Rental FOH Site
North Terminal
South Terminal
Existing Runway

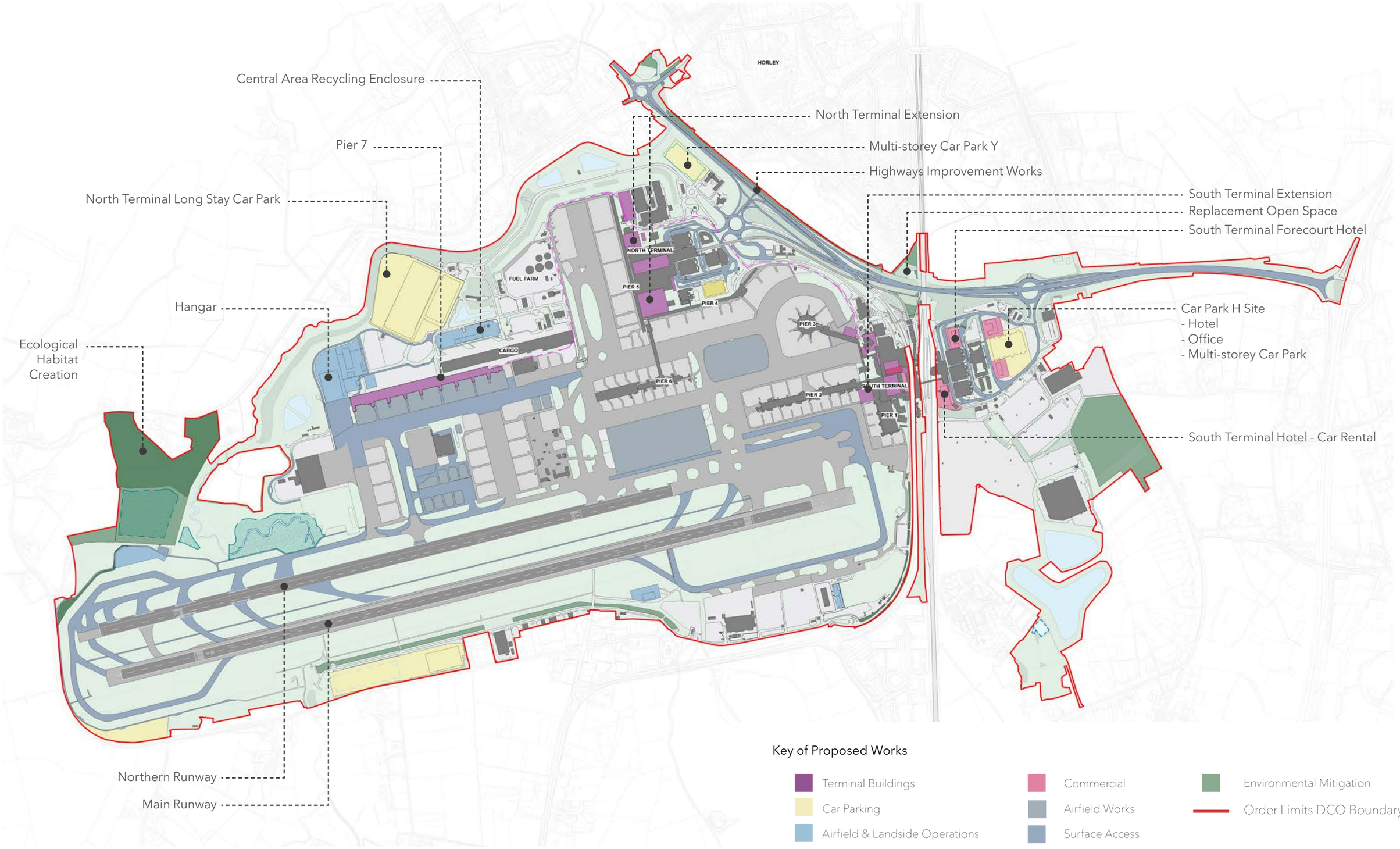


Figure 2. *Works by Land Use Type and Key Developments*

Zones

5.5.6 Due to the large size and varied nature of the proposed development at Gatwick , this DAS describes the development by zones. This divisions assists with understanding the different activities and character of each area.

5.5.7 The zones are shown in Figure 3. The following sub-sections provide an overview of each zone and the proposed developments within each, structured as follows:

a. Characteristics: Defining the existing land use and character of the zone.

b. Constraints: Existing site conditions that might impact on any development.

c. Zone projects and land use: Description of proposed changes to land use and a description of the indicative works.

d. Key buildings and heights: the key existing and proposed buildings and analysis of the heights and topography of the zone.

e. Access: Description of how the zone would be accessed and the arrangements and forms of transport that enables this.

1 - Southern Zone
2 - The Airfield Zone
3 - River Mole Corridor
4 - Northwestern Zone
5 - North Terminal Campus
6 - Surface Access Corridor
7 - South Terminal Campus
8 - Eastern Zone

Figure 3. *Zone Location Plan*

5.6 NORTHWESTERN ZONE

5.6.1 ZONE CHARACTERISTICS

5.6.1.1 The North-Western zone consists of some of the key operational areas connected to the airfield. Located to the west of the North Terminal, it is bound by the restricted airfield area to the south and the River Mole corridor to the north and west as shown on Figure 4.

5.6.1.2 Much of the zone is used for low level surface parking with logistics warehousing (pictured in Figure 6) and fuel farm clustered in the southern and eastern areas.

5.6.1.3 Due to constraints proposed by the restricted airfield area and the River Mole, there is no through-route and all access is gained via the North Terminal area. There are no significant roads or other access routes present in the zone.

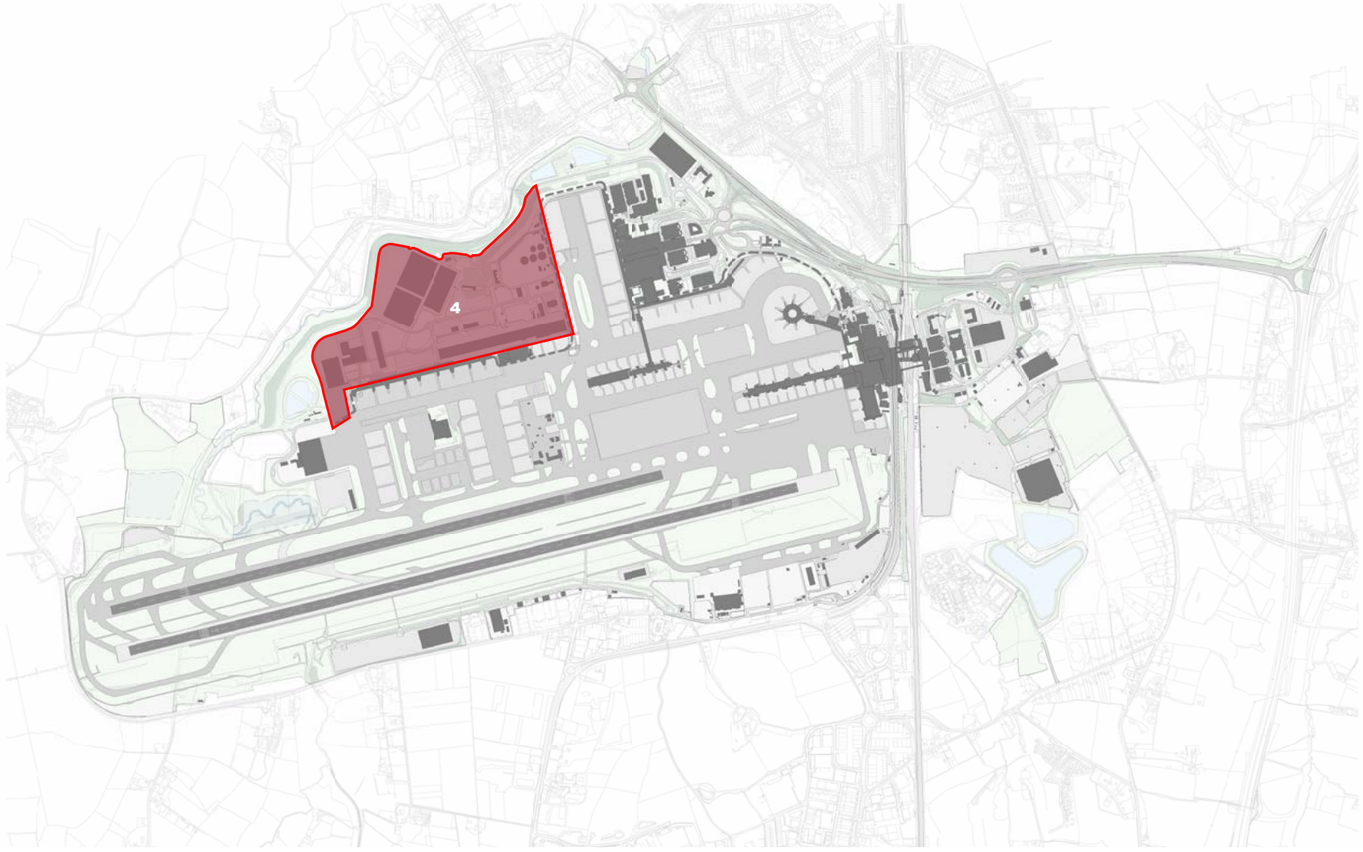


Figure 4. *Northern Western Zone Location Plan*

Figure 5. *North Terminal Long Stay Deck Parking*

Figure 6. *Northwestern Zone - Logistics Warehouses*

Figure 7. *Northwestern Zone - Security Control North*

Figure 8. *Northwestern Zone - Long Stay Parking*

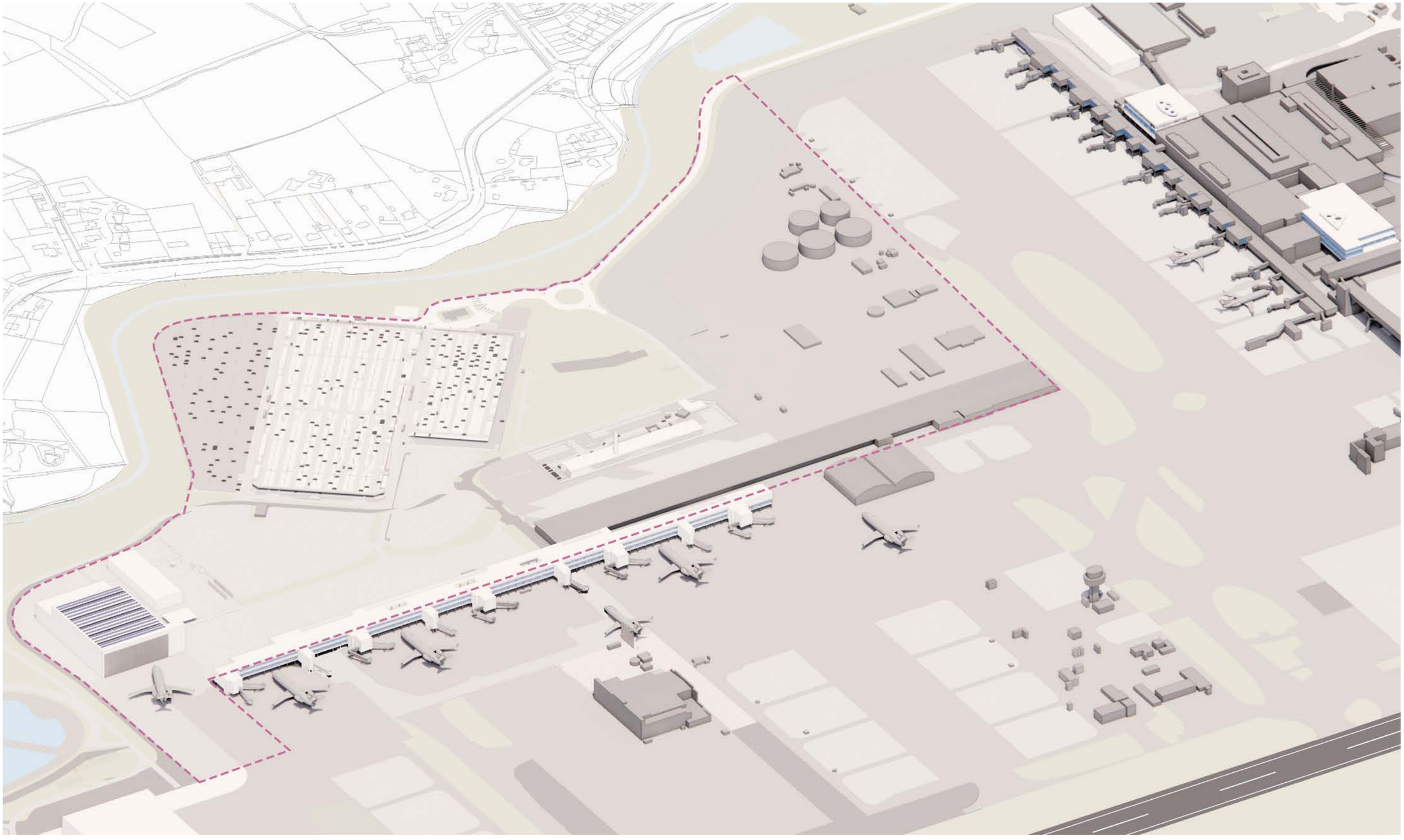


Figure 9. *Illustrative View of Northwestern Zone Location*

5.6.2 ZONE CONSTRAINTS

5.6.2.1 There several of the structures contained within the southern and eastern areas of the zone including the fuel farm and cargo warehouses which are essential to the operation of the Gatwick. Any proposals need to ensure that the operation of these facilities is not adversely impacted.

5.6.2.2 The River Mole corridor and associated woodland directly adjacent provides important wildlife habitat forming a natural constraint against development due to changes in ground level and ecological considerations.

5.6.2.3 Dog Kennel Pond is in the centre of the zone which is surrounded by mature trees. Any loss or impact on these mature trees will be considered and mitigated during detailed design.

5.6.2.4 The constraints are indicated on Figure 10.

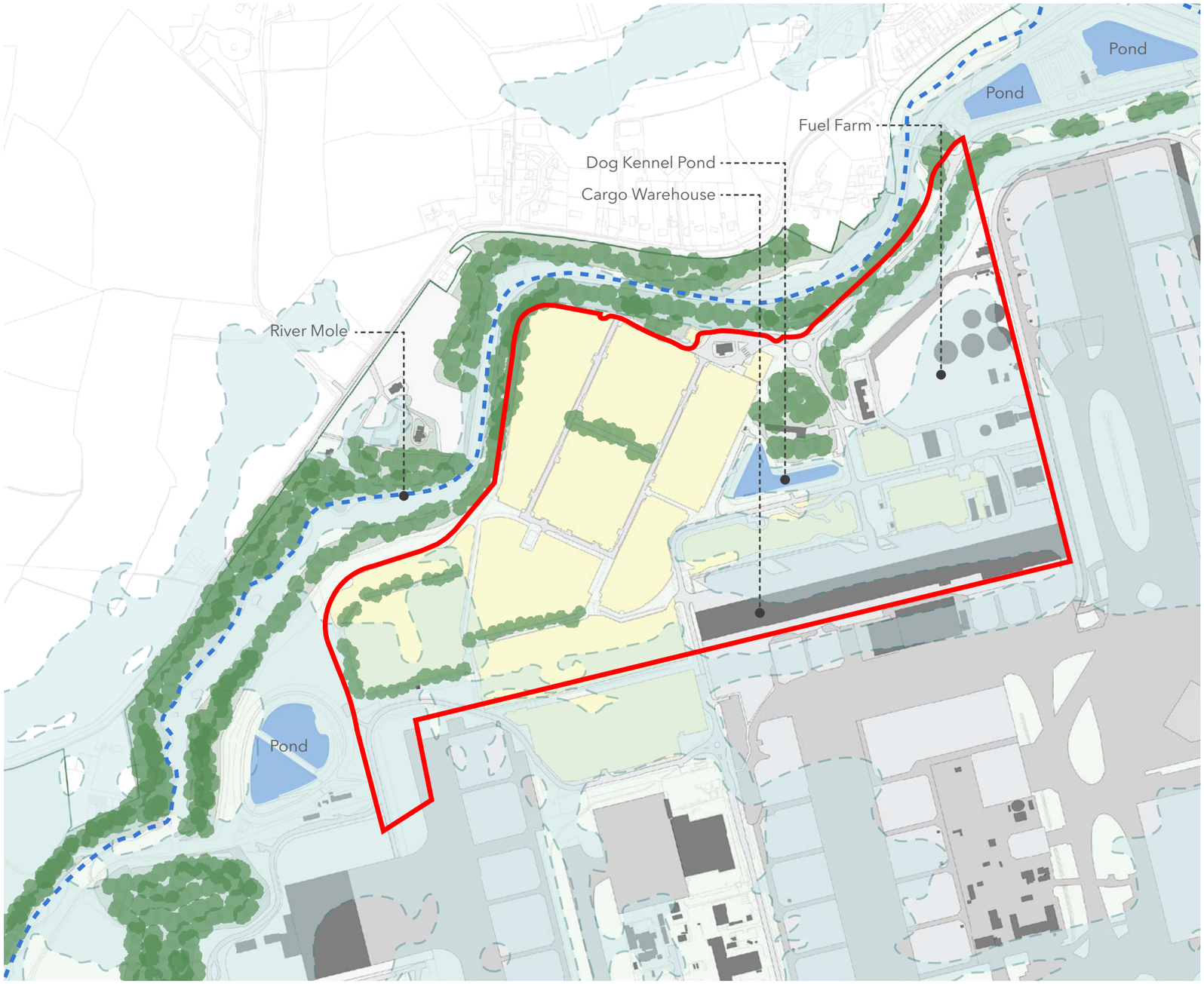


Figure 10. *Northern Western Zone - Existing Site Constraints*

5.6.3 ZONE PROJECTS AND LAND USE

5.6.3.1 The projects proposes as part of the North-Western zone include:

a. Central Area Recycling Enclosure (CARE)
b. Larkins Road Relocation
c. Motor Transport Facilities
d. North Terminal Long Stay Car Park
e. Hangar
f. Rendezvous Point North

5.6.3.2 This will see an intensification of the zone with the land use remaining largely consistent with the existing land use as shown on Figure 11.

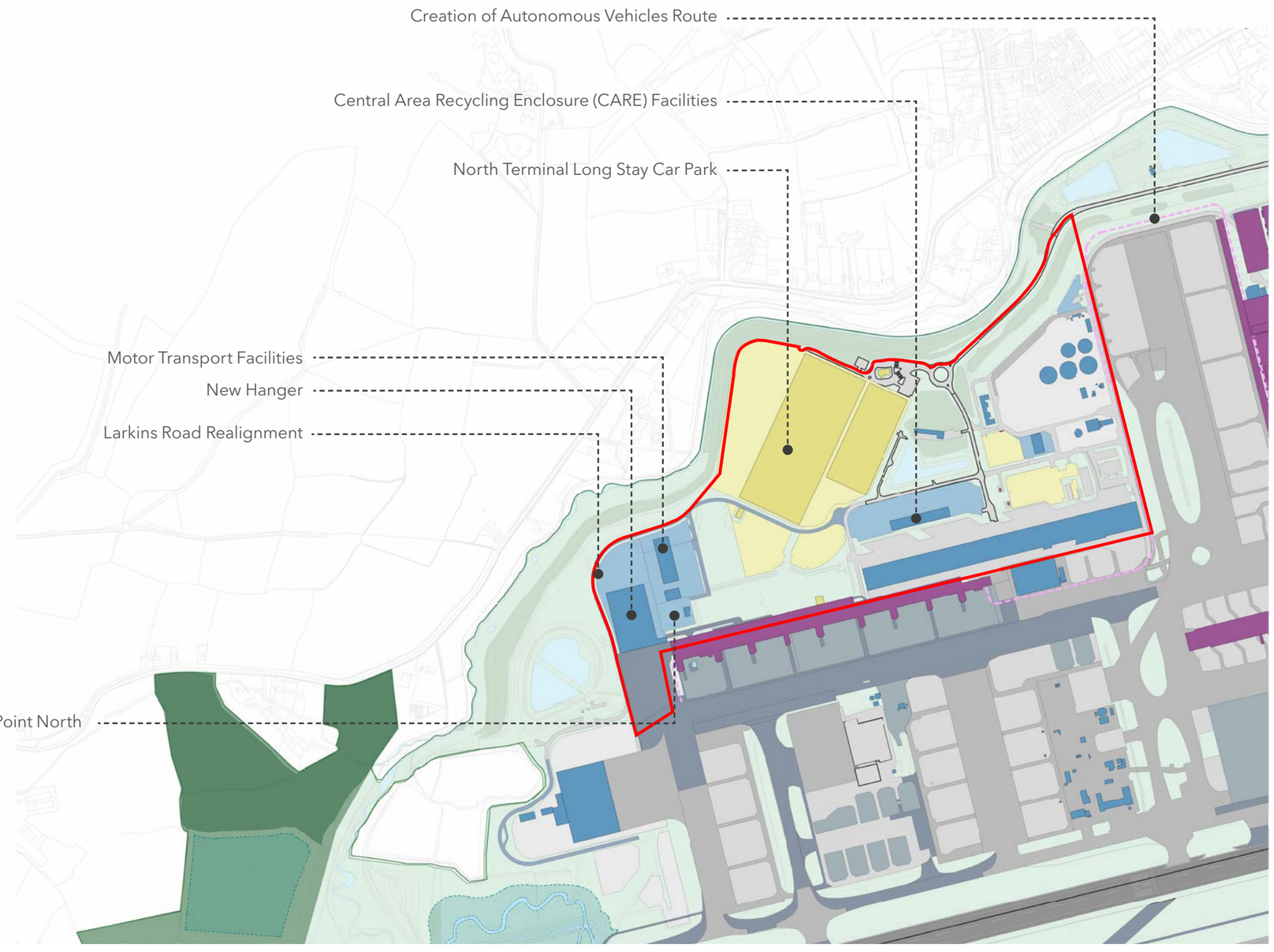


Figure 11. *Northern Western Zone - Land Use*

5.6.4 CARE AREA RECYCLING ENCLOSURE

5.6.4.1 The Central Area Recycling Enclosure (CARE) facility processes Gatwick 's recycling and material waste. The process involves the sorting and processing of waste to be removed off site for recycling or used as fuel for the on-site biomass boiler. Facilities therefore include an area to process the materials, biomass boilers and a compound area for unloading and storage of the materials.

5.6.4.2 Operational waste from Gatwick Airport (both airside and landside) is currently taken to the existing CARE facility which comprises a food to waste energy plant that produces heat and is located within an area of the existing airfield to the north of Taxiway Juliet (Shown on Figure 12). This site will be used for remote aircraft stands that form part of the Project, and therefore requires relocation. The existing CARE facility would remain in operation until the new CARE facility had been commissioned.

5.6.4.3 The indicative location of the proposed replacement CARE facility would be to the north west of Pier 7 (Shown on Figure 12). It would process food waste for energy (heat), as does the current facility, although to provide for growth associated with the Project it would need to process a larger volume of food waste and would therefore be larger in scale. The facility would process the majority of waste with the exception of food waste from international flights

5.6.4.4 There would be two biomass boilers and a materials recovery facility (MRF) to allow sorting of waste. A storage area would be provided for baled waste for collection by external suppliers from both landside and airside operations. In addition to the above, the CARE facility would include:

- card baling facilities;
- vehicle weigh in/weigh out platform (a weighbridge);
- office accommodation and welfare facilities; and
- hard standing area for recycling storage, quarantine area and manoeuvring and area for supplier collection vehicles and vehicle movements.

Figure 12. *CARE Facilities Overall Site Location*

5.6.4.5 The replacement CARE facility will offer the opportunity to manage greater quantities of waste by providing a larger area for vehicle management, material sorting and holding areas for bulked up waste. It also safeguards space for recycling of other types of waste from Gatwick Airport in the future.

5.6.4.6 The CARE facility has been designed to incorporate the movement of Large Refuse Vehicles, with a maximum length of 11.22 metres and a maximum width of 2.53 metres.

5.6.4.7 The recycling vehicles are required to unload their waste for collection by external suppliers from both landside and airside operations. The vehicles are able to reverse into their specially designed bays. These have been especially accommodated through 18 metres x 12 metres x 2.5 metres bays.

5.6.4.8 Turning circles for the required waste vehicles govern how the site is set out but also mean the building width is limited. The site also accommodates the minimum storage areas for the various material streams.

5.6.4.9 Figure 13 illustrates the indicative external and internal circulation of vehicles at the CARE Facility. Vehicles would enter the entrance shown on the left of the floor plans and exit via the access shown to the right on the plans.

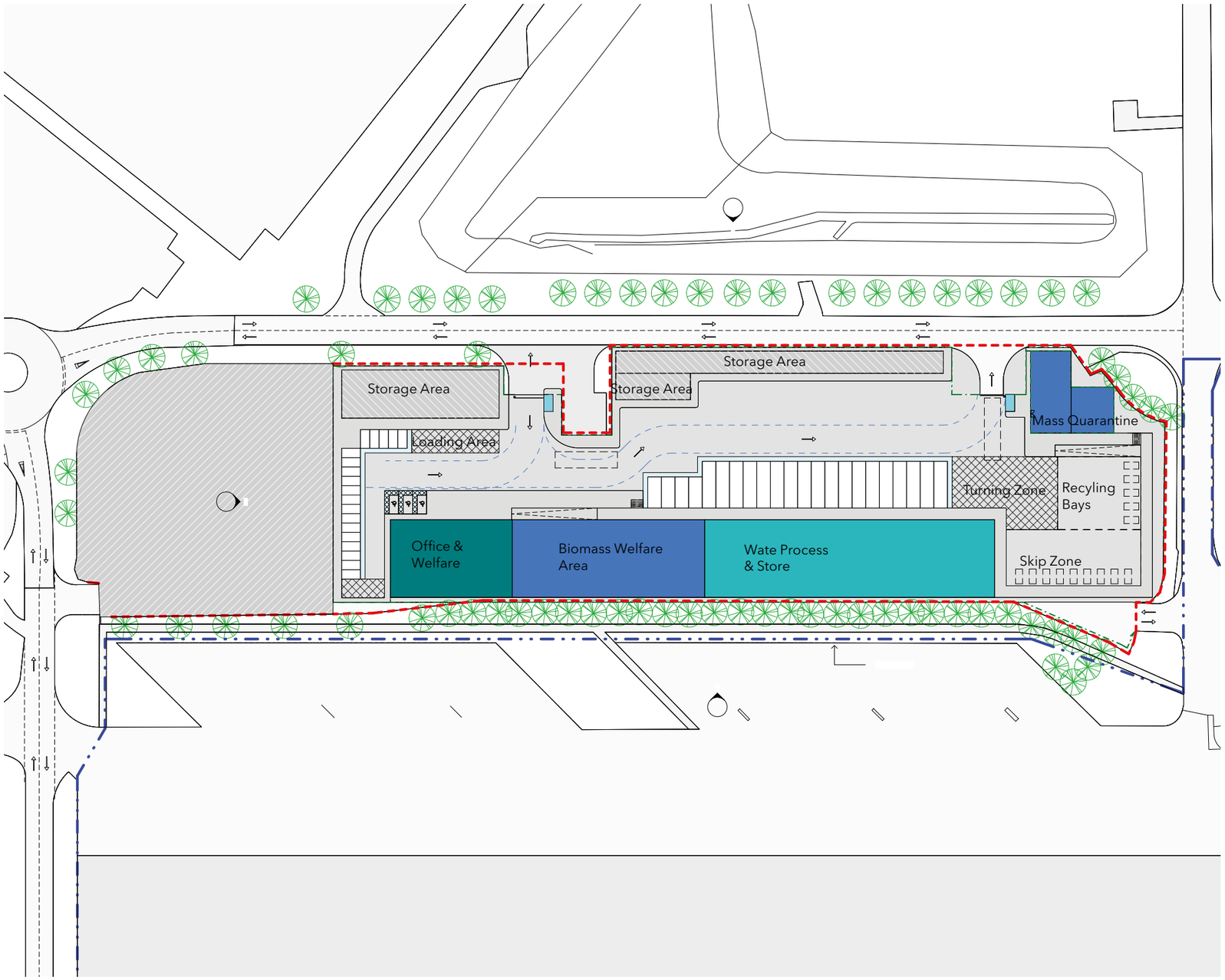


Figure 13. *CARE Facility Indicative Ground Floor Plan*

5.6.4.10 The CARE facility will be common in aesthetic to other operational buildings, with metal roof and cladding and glazing to key areas including office space.

5.6.4.11 As part of the technical requirements for such a facility a chimney or flue needs to be provided at the correct height to comply with environmental regulations. The design of such an item is functionally driven but can be achieved using several materials such as, concrete (either pre-cast or in-situ) or traditional masonry but is most commonly built in galvanized or stainless steel. An illustrative example of how the CARE facility may appear once constructed is shown in Figures 15 and 16.

5.6.4.12 The design guide in Section 6 of this DAS sets out the standards for design and provides more detail on typical materials and appearance of the operational buildings. The Design Principles set out in Appendix 1 of this DAS secure the design-related commitments that shall be adhered to throughout detailed design.

Figure 14. *Airfield View of CARE Facilities*

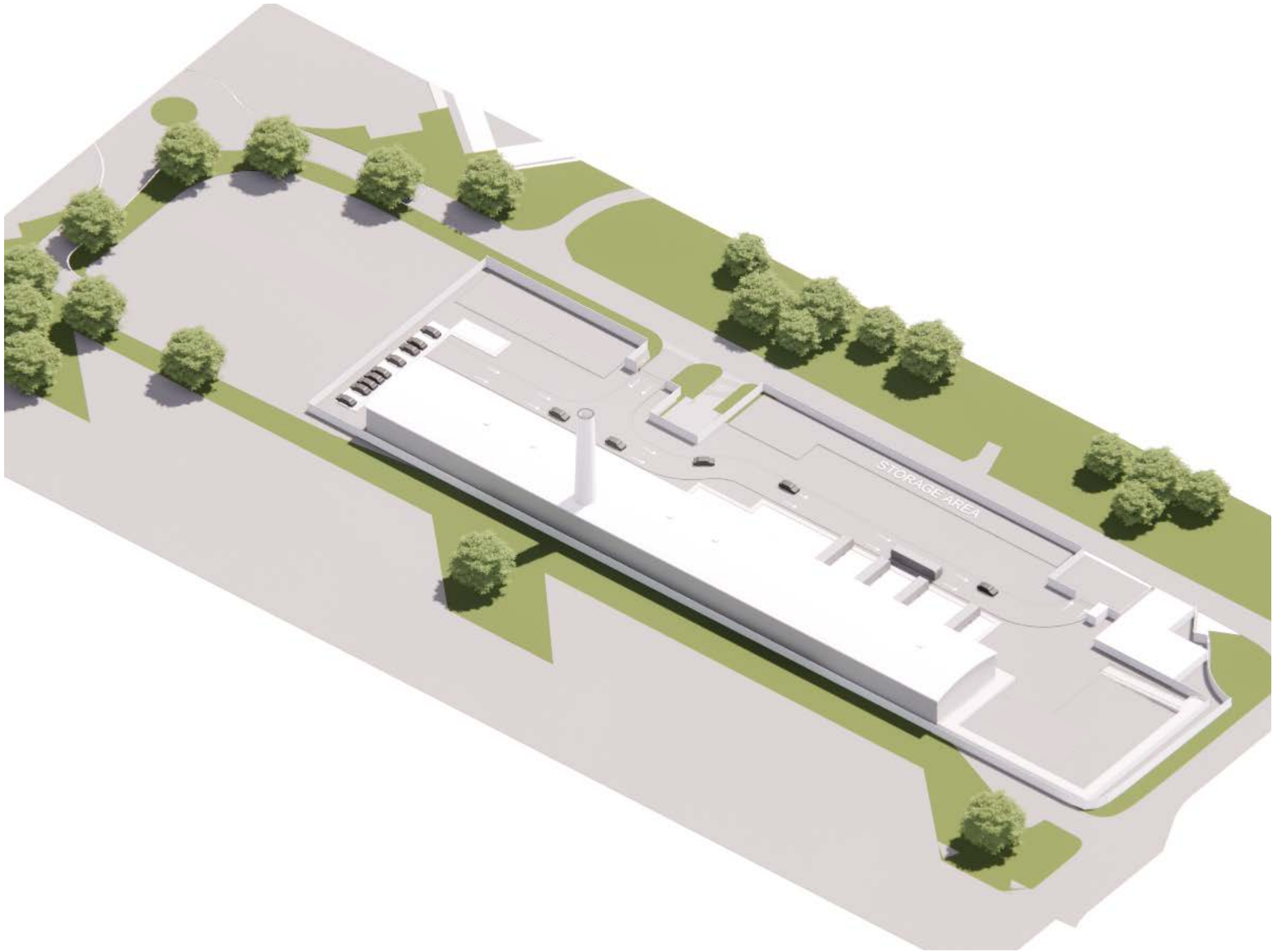


Figure 15. *Indicative Massing of CARE Facilities*

5.6.5 LARKINS ROAD

5.6.5.1 Larkins Road connects the north-west landside area of Gatwick to Perimeter Road North which connects to the local road network (shown on Figure 16 as the dashed blue and red line). The existing Larkins Road within Gatwick Airport boundary would require realignment to accommodate the extension to Taxiway Lima and to maintain access to Pond A and the area south of the existing Boeing hangar. The indicatively proposed realignment is illustrated on Figure 16 as a solid red route. The realigned route allows for a 9.3 metres wide road with 5 metres buffer on either side (except for the area south of Pond M between Brockley Wood and Hangar 1) and would remain within the existing boundary.

5.6.5.2 A temporary diversion will be required during construction to align with the indicatively proposed construction phasing whilst maintaining this access. A final phase realignment of Larkins Road will run across the existing long stay parking route and link back to the existing alignment of Larkins Road near Pond A (as indicated by the orange route shown on Figure 17).

5.6.5.3 This realignment will require the re-routing of underground services and landscaped verges.

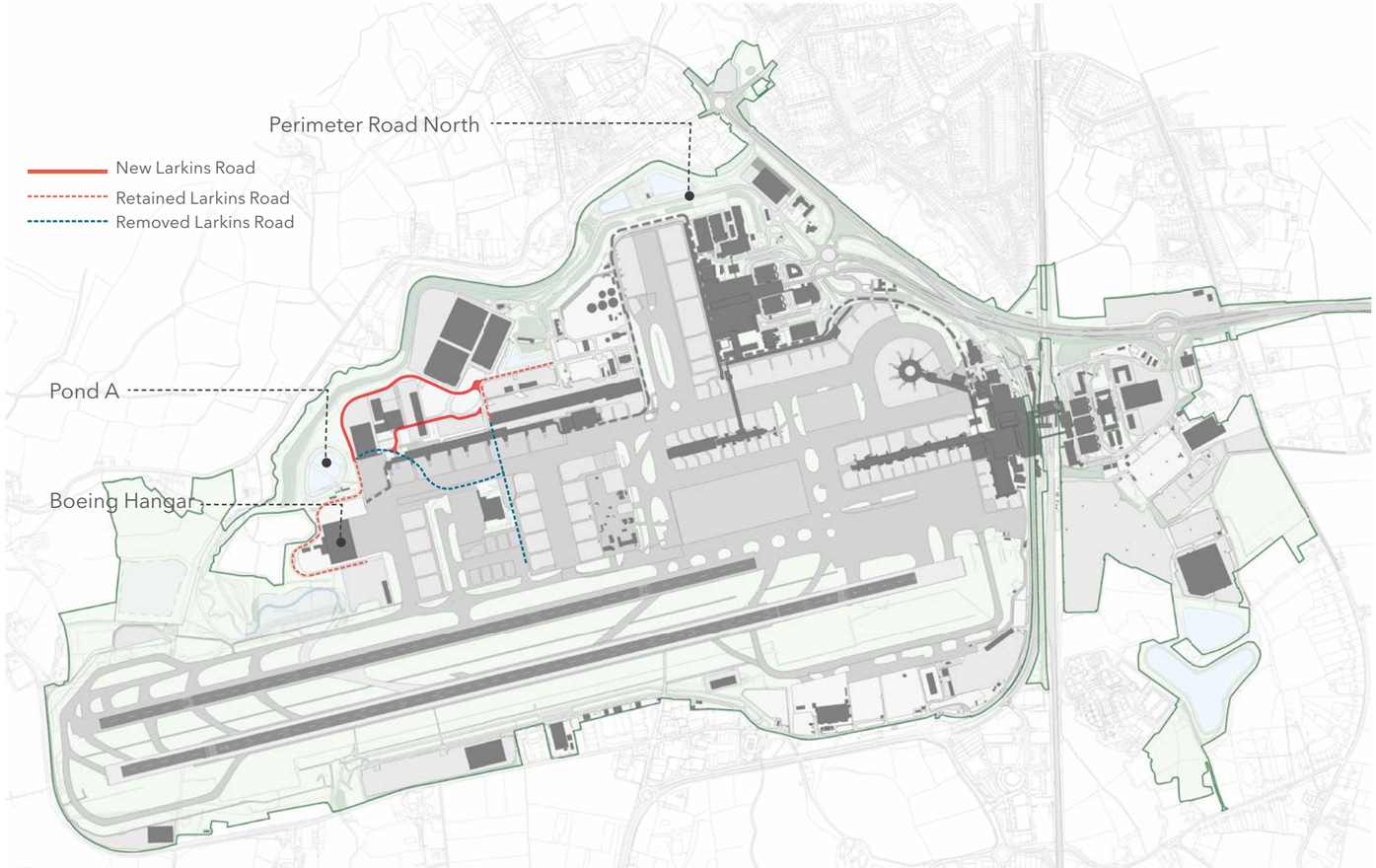


Figure 16. *Larkins Road Overall Site Location*

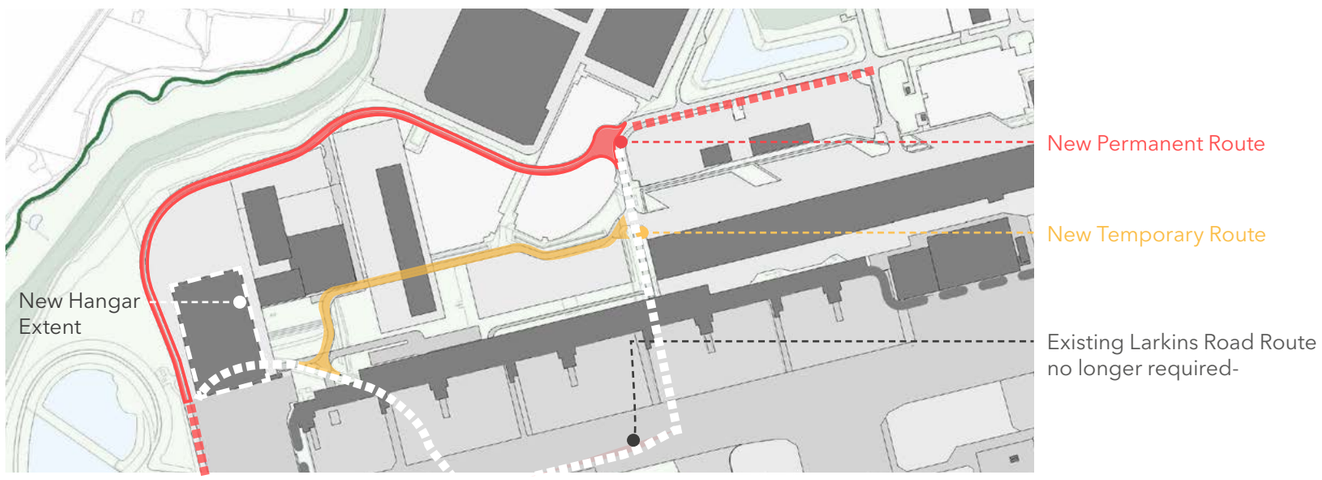


Figure 17. *Larkins Road Site Context Plan*

Source: Imagery @2023 Bluesky, Getmapping PLC, Infoterra LTD & Bluesky, Maxar Technologies, The Geoinformation Group, Map data@2023

5.6.6 MOTOR TRANSPORT FACILITIES

5.6.6.1 The motor transport facilities comprise a range of facilities to maintain a fleet of approximately 300 operational vehicles including snow clearing vehicles, fire tenders, buses, cars and vans.

5.6.6.2 The existing motor transport facilities are situated to the north of Taxiway Juliet (as shown on Figure 18) and will require demolition to facilitate the construction of the Oscar remote stands which form part of the Project.

5.6.6.3 This replacement site is an existing long stay car park located to the north of the existing location and what will be adjacent to the new airside hangar (as illustrated on Figure 19). The site is 'landside' and therefore outside of the secure zone of Gatwick.

5.6.6.4 The indicatively proposed motor transport facilities will include a vehicle workshop, parts store, ramps, fits, tyre store, test area, heavy goods vehicle (HGV) refuelling area, vehicle wash area, offices, and staff welfare. There would also be provision of electric charging and hydrogen vehicle fuelling capability.

5.6.6.5 Part of the works may commence earlier to provide a truck wash and refuelling station in a secure site with security hut and staff parking.

5.6.6.6 There is a requirement for the provision of electric vehicle charging and hydrogen refuelling capability for ground service equipment and operational vehicles.

5.6.6.7 The building has a series of vehicle roller shutters or sectional doors into the workshop from the west service yard. The office and staff accommodation is at the upper level but allowing for a double height void above the main service workshop as indicatively shown on the massing model on Figure 19 and indicative floor plan on Figure 20.

Figure 18. *Motor Transport Facilities Overall Site Location*

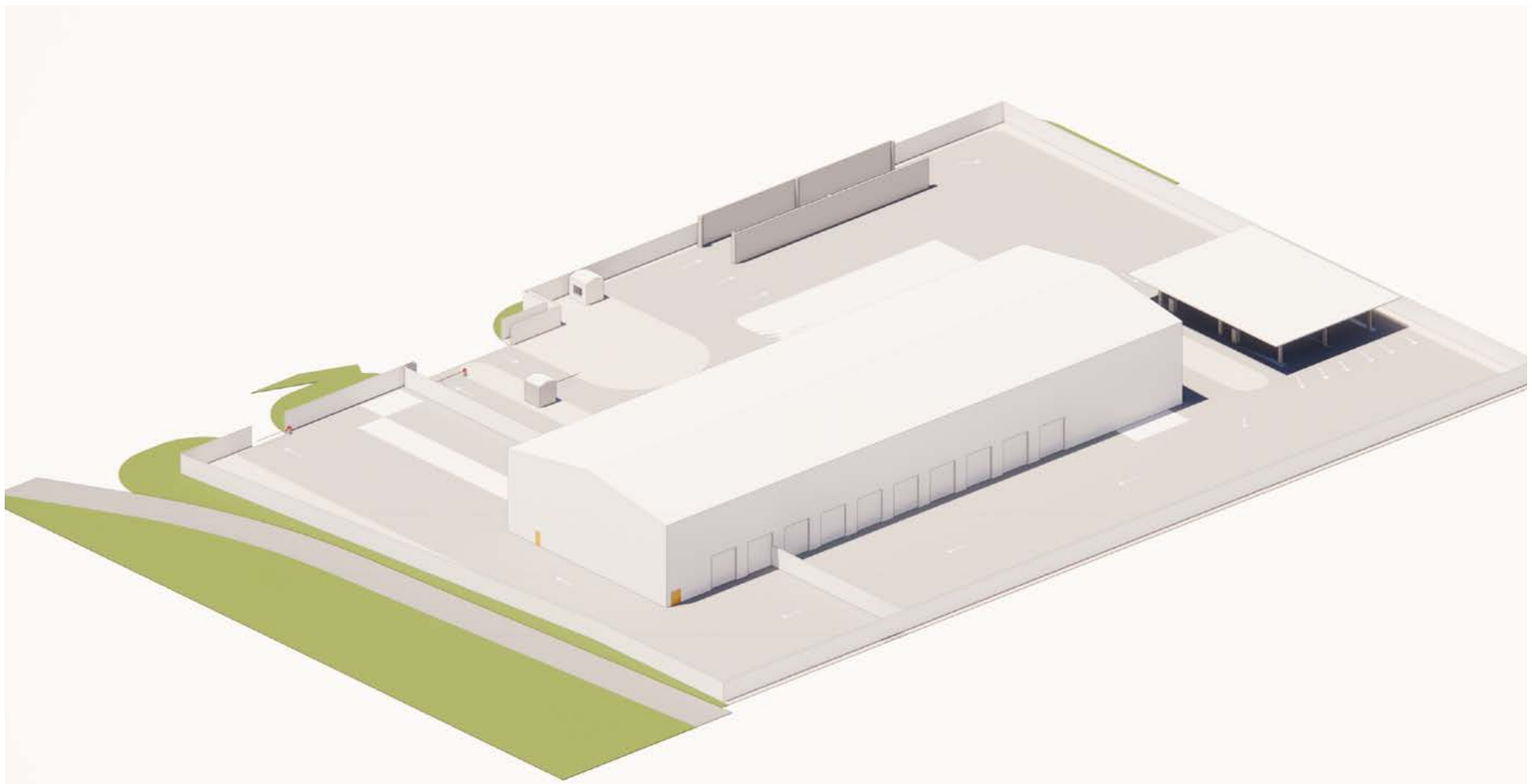


Figure 19. *Indicative Massing of the Motor Transport Facilities*

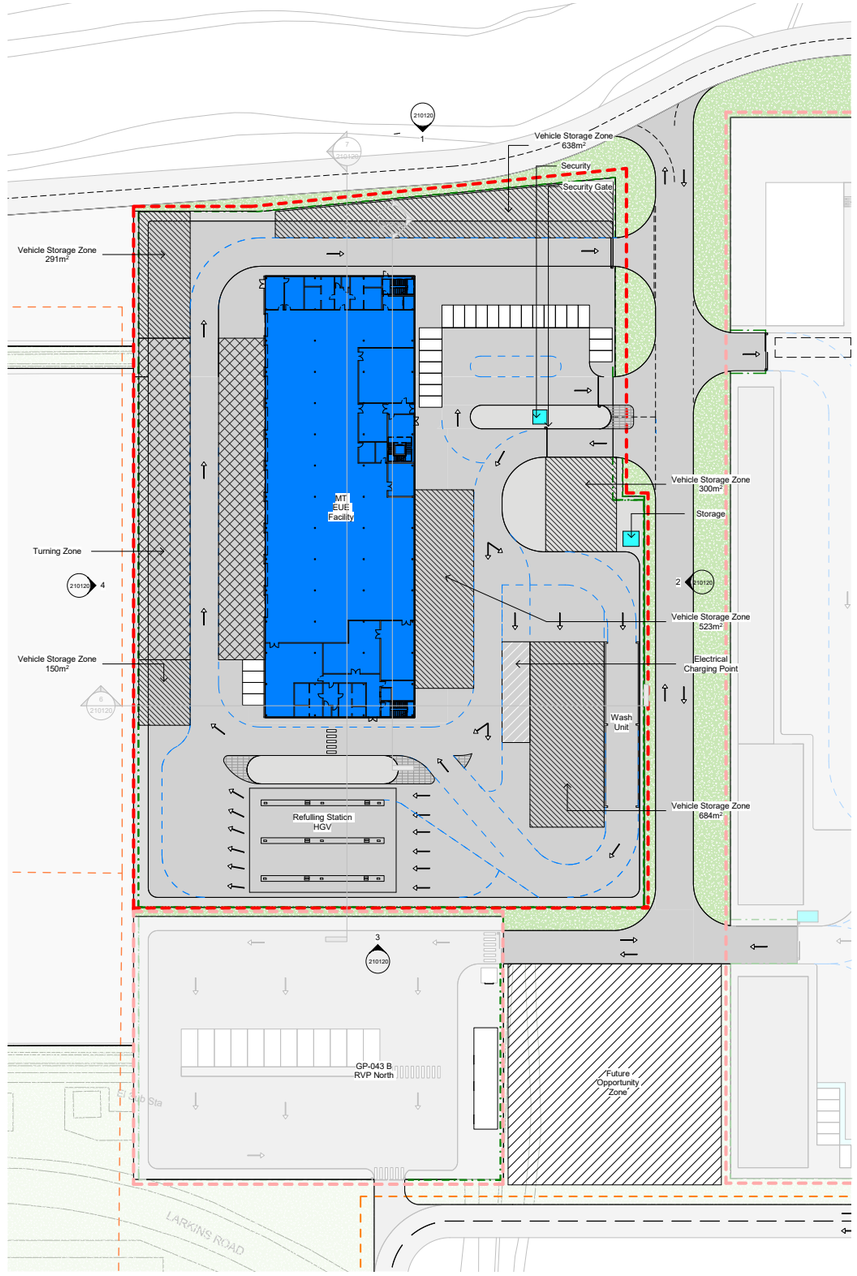


Figure 20. *Indicative Ground Floor Plan Showing Site Access Arrangements*

5.6.7 NORTH TERMINAL LONG STAY CAR PARK

5.6.7.1 As a result of increased passenger numbers, additional parking will be required to meet the demand generated. The existing North Terminal long stay surface car park (shown on Figures 21 and 22) will be upgraded to increase capacity through introducing deck parking at the site. The indicative massing of the long stay car park is illustrated at Figure 24.

5.6.7.2 The parking area is located to the west of the North Terminal with the River Mole running along the northern boundary. It is currently accessed from Perimeter Road North and is a 'self-park' long stay parking area with entrance control and ticketing barriers from the Perimeter Road North roundabout.

5.6.7.3 The upgrade of the existing car park will see an increase of 1,680 parking bays with the site expected to remain a 'self-park' facility. A bus route will operate within the site to provide transfers to the North Terminal.

5.6.7.4 The design of the deck will be driven by creating efficient floor plates as set out by the required bay and lane sizes. The other constraining factor includes the minimum regulatory distances between stairwell cores as an emergency escape route.

Figure 21. *North Terminal Long Stay Car Park Overall Site Location*

Figure 23. *North Terminal Long Stay Car Par Indicative View*

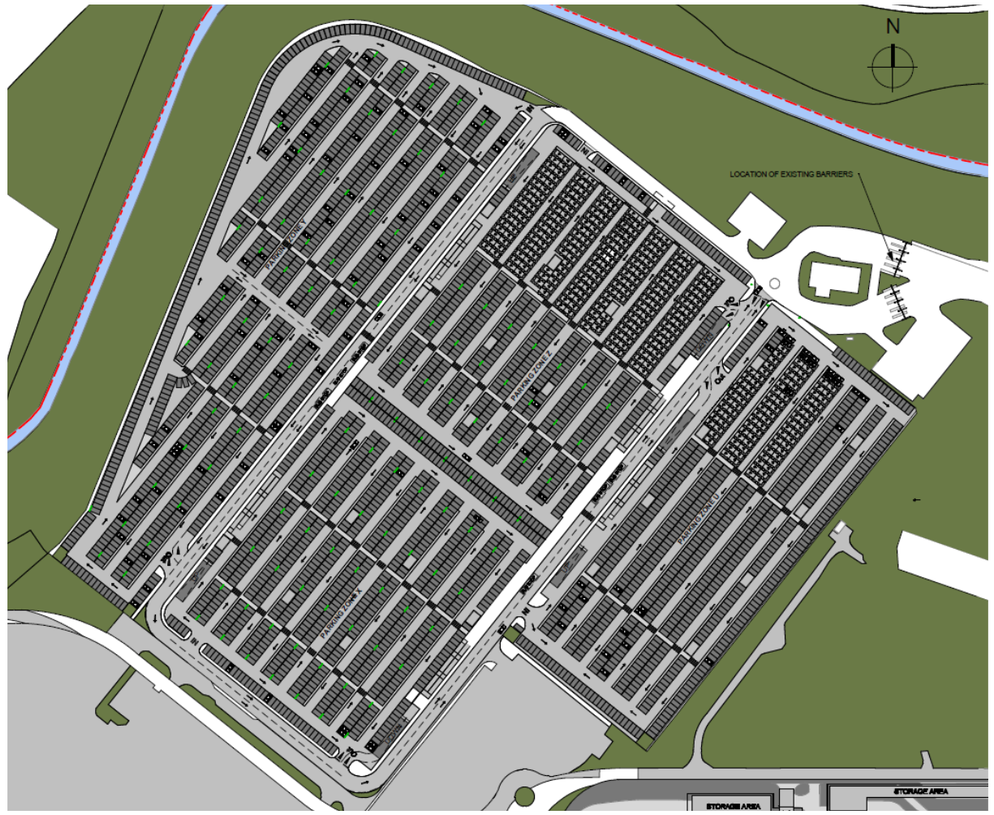


Figure 22. *North Terminal Long Stay Car Park Indicative Ground Floor Plan*

Figure 24. *Indicative Massing of North Terminal Long Stay Car Park*

5.6.8 NEW HANGAR

5.6.8.1 It is anticipated that an additional hangar, sized for larger Code E aircraft, is required as part of the Project to provide the necessary maintenance facilities to support the growth of Gatwick Airport. This is indicatively proposed to be located in the north- western part of Gatwick Airport as shown on Figure 26.

5.6.8.2 The indicatively proposed location is presently occupied by long stay surface parking shown on Figure 26. To the west of the site is existing Pond, with the Boeing hangar to the south. Indicative Pier 7 will be located to the east.

5.6.8.3 As well as the main hangar space it will provide facilities such as workshops, staff offices and welfare, servicing and plant space. It will also have apron hardstanding to accommodate two Code E aircraft, and at the rear the existing car parking areas will be re- provided for associated staff parking.

5.6.8.4 It is envisioned that the hangar will be a long-term development and is likely to be owned or managed by a third party.

Figure 26. *New Hangar Site Context Plan*

Figure 27. *Indicative Airfield View New Hangar*

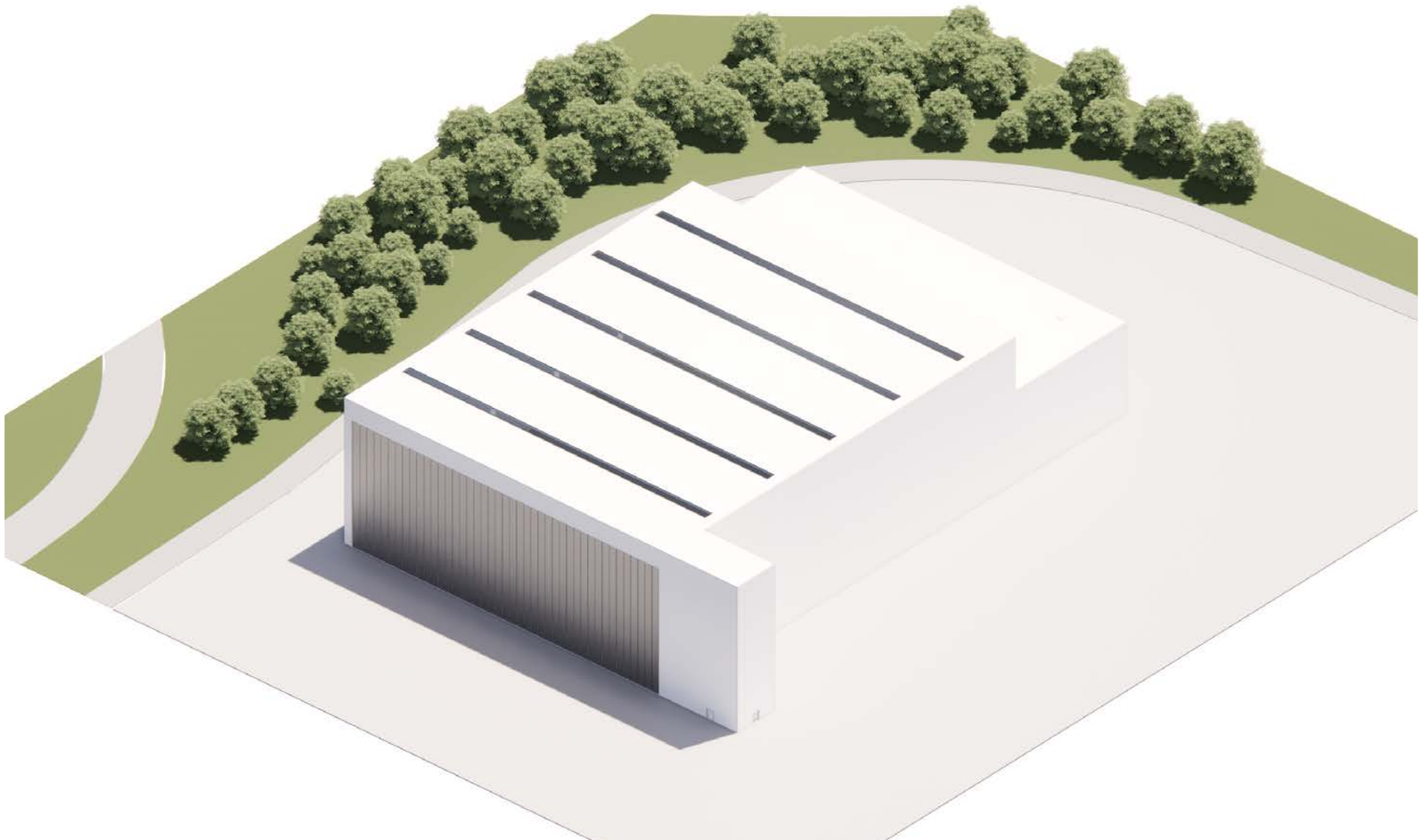


Figure 28. *New Hangar Indicative Massing*

5.6.8.5 The hangar will have a footprint of approximately 12,440 square metres with a height of approximately 32 metres above ground, and 10 metres below ground. Figure 29 shows the relationship of the indicative hangar to the adjacent Pier 7 (see section 5.7.10) including the typical levels arrangement of the hangar. It will have consolidated staff accommodation and offices on two levels with the main open and free span hangar space to the front.

5.6.8.6 Figure 29 shows an exploded view of the indicative hangar design indicating the proposed uses within the hangar building.

5.6.8.7 The design provides the minimum east-west land take and still safeguards the space for the required dimensions of a Code E aircraft fully parked within the hangar building. In terms of the north-south direction, landside car parking is provided at the top of the site, but which is separated by a secure zone fence to the rest of the hangar.

5.6.8.8 The hangar's form will be dictated by the size of the aircraft it is designed to house, in this case Code E type aircraft. The large front sliding doors fold back away from the entrance to allow the aircraft to enter the building.

5.6.8.9 The materials will likely be composite or profile metal cladding with a metal or flat roof system. Roof lights will provide natural light into the hangar to reduce energy consumption. The rear section containing the office and staff areas may be reduced in height as required.

5.6.8.10 The Design Guide in Section 6.8 of this DAS sets out the standards for design and provides more detail on typical form and materials of these buildings.

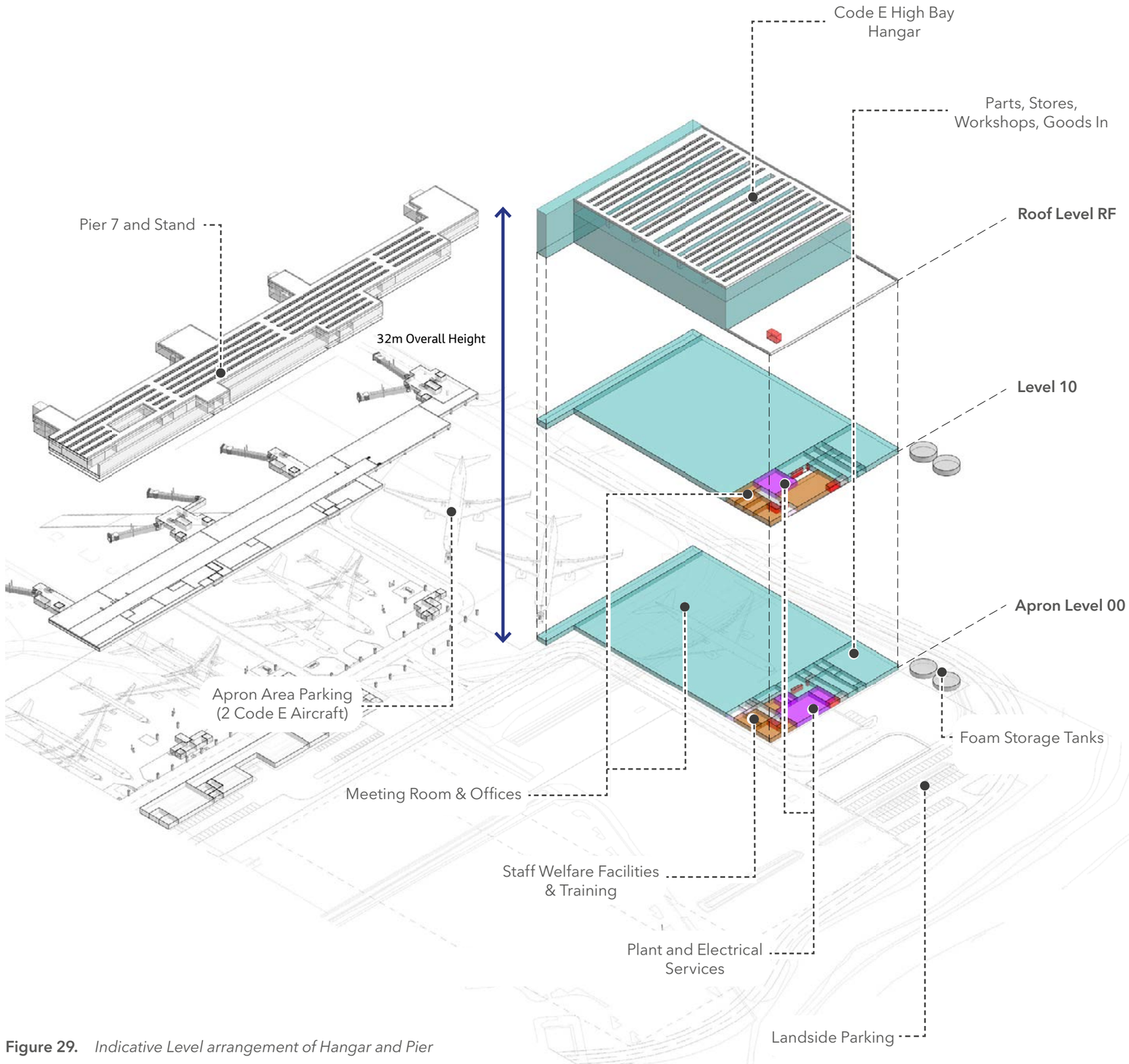


Figure 29. *Indicative Level arrangement of Hangar and Pier*

5.6.9 RELOCATED POLLUTED WATER DISCHARGE

5.6.9.1 The proposed location for the new hangar is built over the existing drainage system between Pond M and Pier 7 stands and therefore it is proposed to divert the drain around the hangar and connect into the drain run provided under the Pier 7 stands. The new drain will run along the head of the stands and turn north up Larkins Road .The indicative route of the proposed relocation is illustrated on Figure 30.

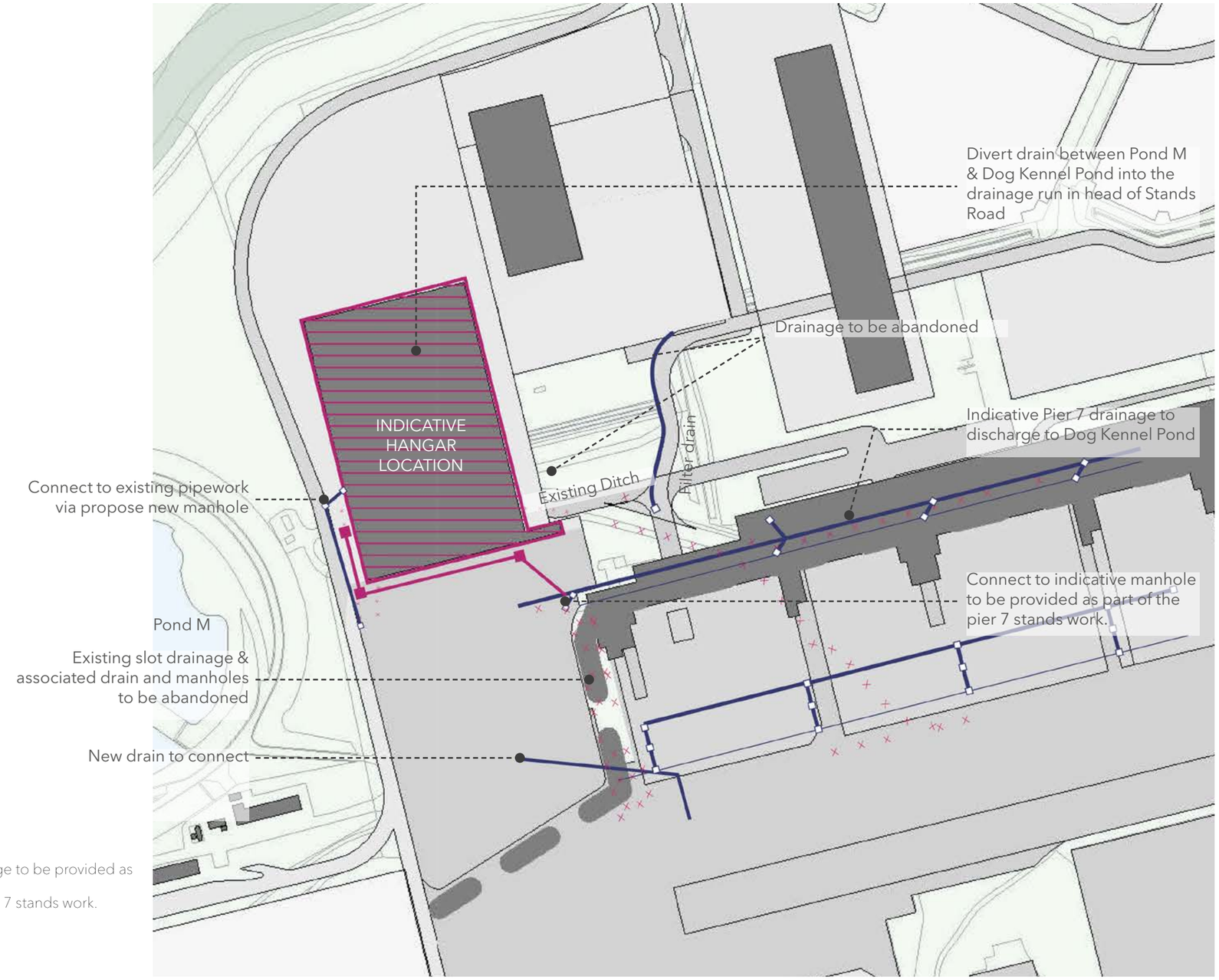


Figure 30. *Re-locate Polluted Water Discharge to Pond D Site Context Plan*

5.6.10 RENDEZVOUS POINT NORTH

5.6.10.1 As part of Gatwick 's Aerodrome Emergency Plan, Rendezvous Points have been established to which oncoming vehicles from external responders (Police, Fire, Ambulance, AAIB, etc) report, in the event of an emergency. From the Rendezvous Points, responders are escorted to the accident/incident site with the minimum of delay.

5.6.10.2 The existing Rendezvous Point North is a secure area of approximately 4,500 square metres of hardstanding for vehicles, with a small cabin with power and utilities and an airside gate for easy access to the airfield. Due to the proposed reconfiguration of this area, the existing Rendezvous Point North would be relocated in order to re-provide a suitable emergency rendezvous area, to the north of the central airfield area (as shown on Figure 32), for off emergency services

5.6.10.3 The proposed location is currently part of the long stay surface parking and will in the new arrangement have direct access to the airfield secure zone. The indicative access point is shown on Figure 32.

5.6.10.4 The proposed Rendezvous Point North will include car parking spaces as well as a modular staff welfare building containing briefing room and staff accommodation. An illustrative layout is shown on Figure 31 to provide an example of how the facility may be designed.

5.6.10.5 This site will be secured with a fence with closable access gates from the landslide roads and also rapid access gates on the airside to give direct access to the airfield and its internal road network.

5.6.10.6 The gates work as an 'airlock' or lobby type arrangement with only one open at any time and which is carefully managed to the secure zone is maintained.

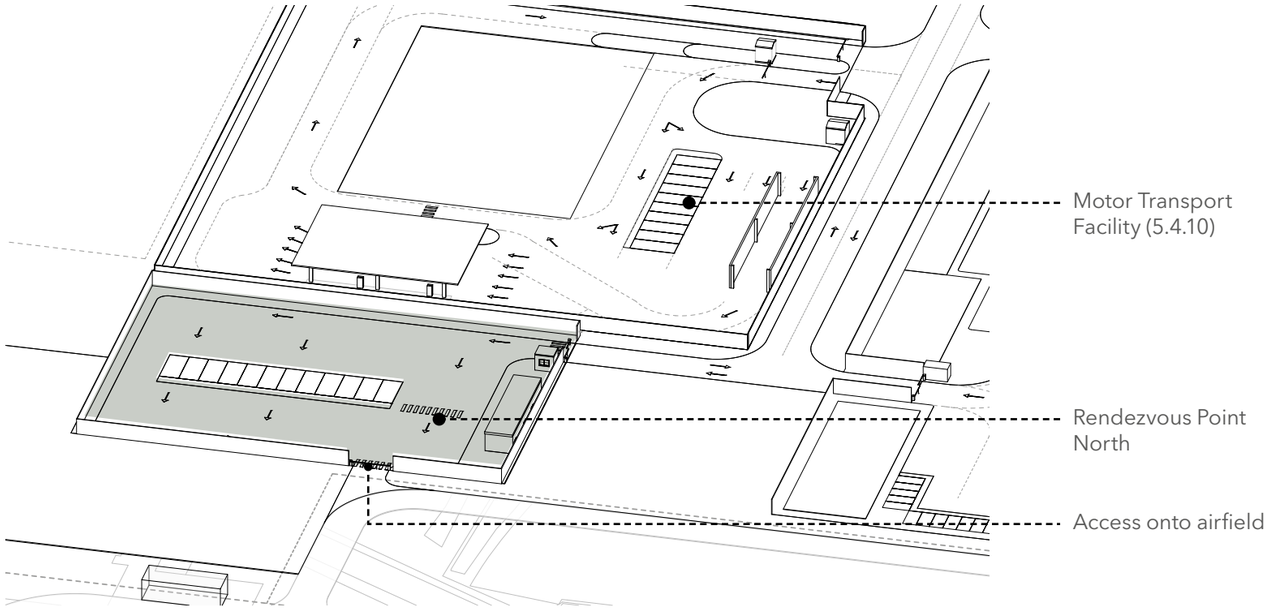


Figure 31. *Indicative Massing of Rendezvous Point North*

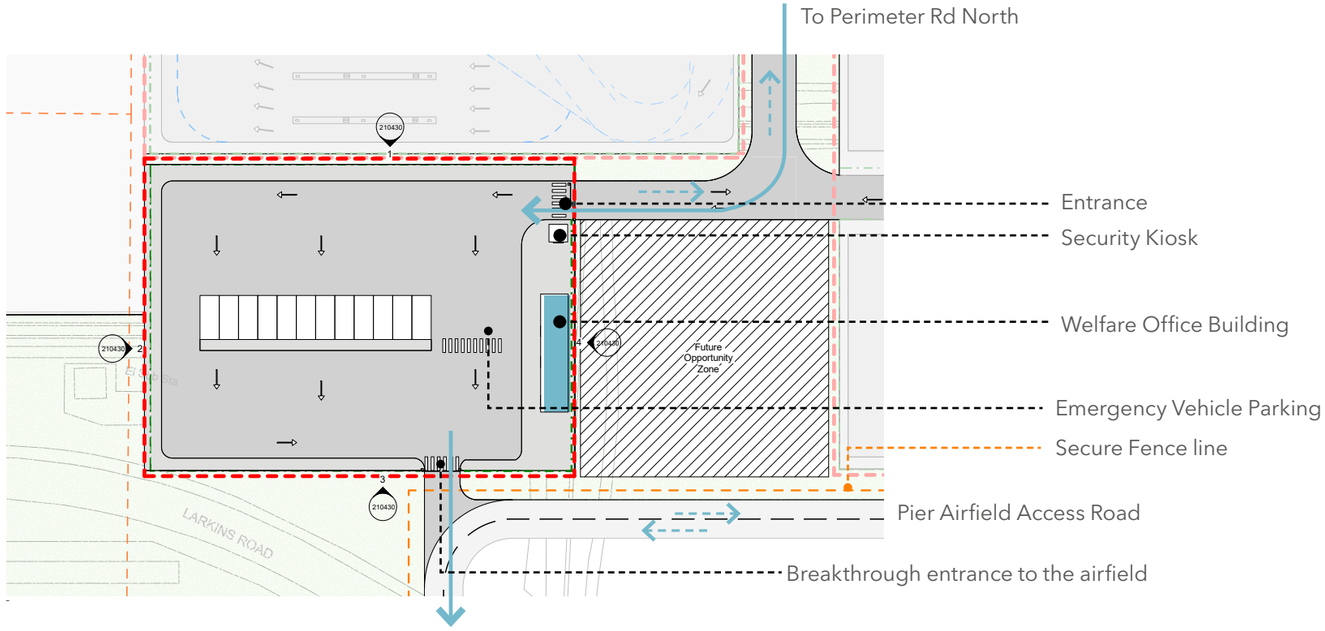


Figure 32. *Indicative Site Plan of Rendezvous Point North*

5.6.11 BUILDING HEIGHTS

5.6.11.1 The existing buildings at the site range in height. The warehousing, fuel farm structures and operational buildings are sparsely located and range between one and three storeys in height as shown on Figure 33.

5.6.11.2 The proposed built form in this zone will be concentrated to the west of the zone away from the existing buildings which are concentrated to the east.

5.6.11.3 The CARE facility would occupy an area of approximately 17,550 square metres, with the main building being up to 22 metres in height and a biomass boiler flue that would be up to 48 metres above ground level (diameter of 0.47 metres). There would be elements up to 5 metres below ground level.

5.6.11.4 The motor transport facilities building and compound would occupy an area of approximately 15,600 square metres, with a maximum building height of 15 metres above ground level and could include elements up to 5 metres below ground level.

5.6.11.5 The proposed new hangar would have a footprint of approximately 12,440 square meters and would be up to 32 meters high and could extend below ground level by up to 10 metres.

5.6.11.6 The proposed Rendezvous Point North will require an area of approximately 4,490 square metres with a maximum building height of 5 metres.

5.6.11.7 The maximum building heights are also illustrated on the Parameter Plans that form part of the DCO application. These are further discussed in Section 7 of this DAS.

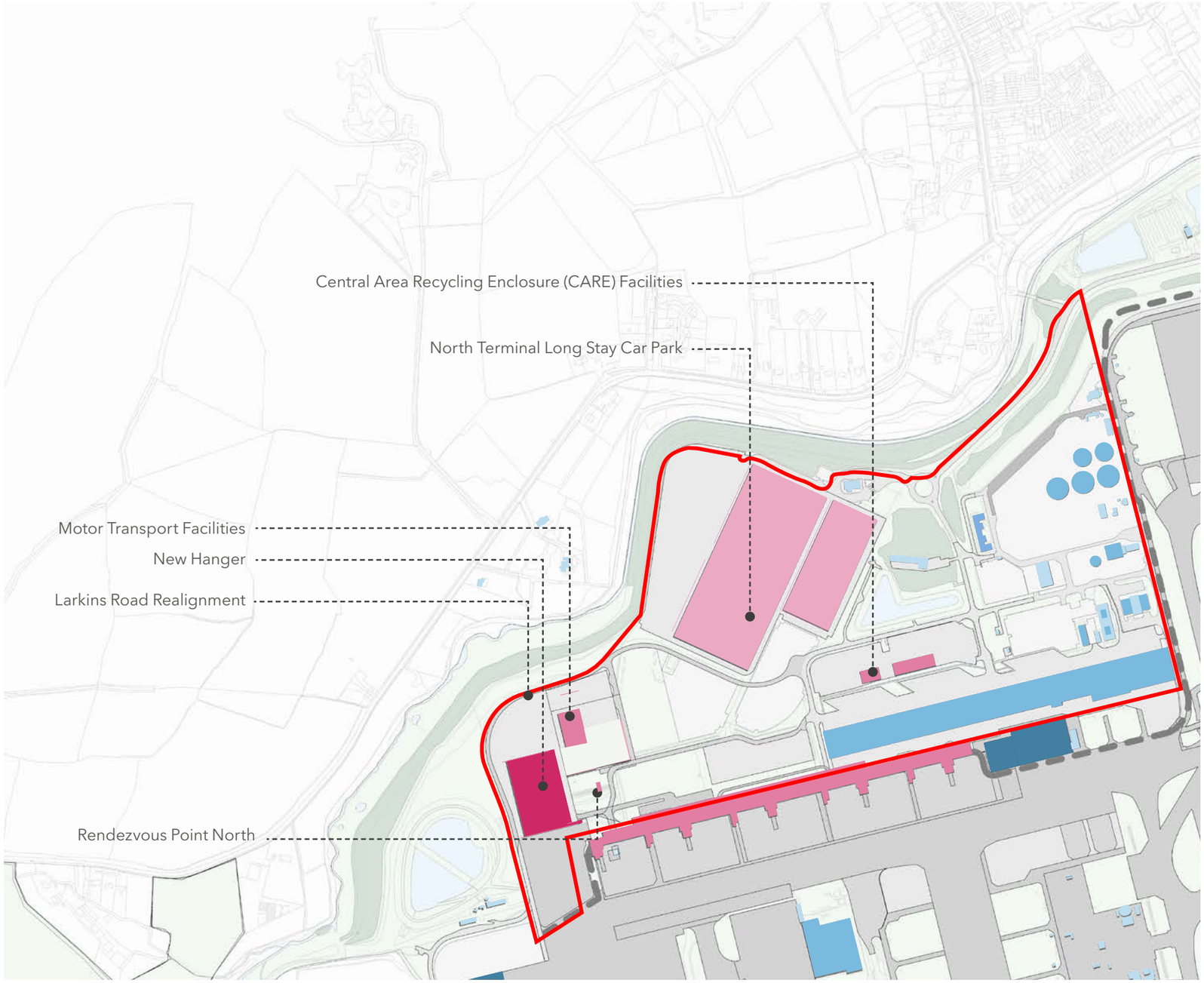


Figure 33. *Northwestern Zone - Indicative Building Heights*

5.6.12 ACCESS

5.6.12.1 Access arrangements within the zone are illustrated on Figure 34.

5.6.12.2 External vehicular access onto the airfield is primarily through security check points with the northern control point on Timberham Farm Road. There will also be emergency access through Rendezvous Point North. Access to specific features of the proposal are detailed below.

5.6.12.3 **CARE Facility:** All vehicles associated with the CARE facility will access the site from the north, via Larkins Road. The site is secured by an entry barrier. The barrier has been located to provide storage space for a minimum of one vehicle off the main access road. The facility has been designed to allow the delivery and waste vehicles to enter the site in a forward gear through the western section and leave via a one-way internal loop to an exit on the eastern side.

5.6.12.4 **Motor Transport Facilities:** The site works on a one way system to improve efficiency and safety with staff and visitor vehicle access being kept separate to the main truck and maintenance vehicle access routes.

5.6.12.5 **Car Park:** The existing entrance arrangement to the car park will remain.

5.6.12.6 **Hangar:** The hangar is an airside facility in the secure zone of the airfield, and which needs to be accessed by one of the security search check points around Gatwick Airport, the nearest of which is the existing northern approach security. Staff will be coached to the facility via the airside road network. This coach route to the hangar will pass beneath indicatively proposed Pier 7, which will include a height restriction on vehicles. It will then drop off staff to the rear of the hangar building.

5.6.12.7 There is also a crossing located immediately below the hangar apron with operational measures implemented to control that vehicles to avoid crossing when aircraft are accessing/exiting the hangar area.

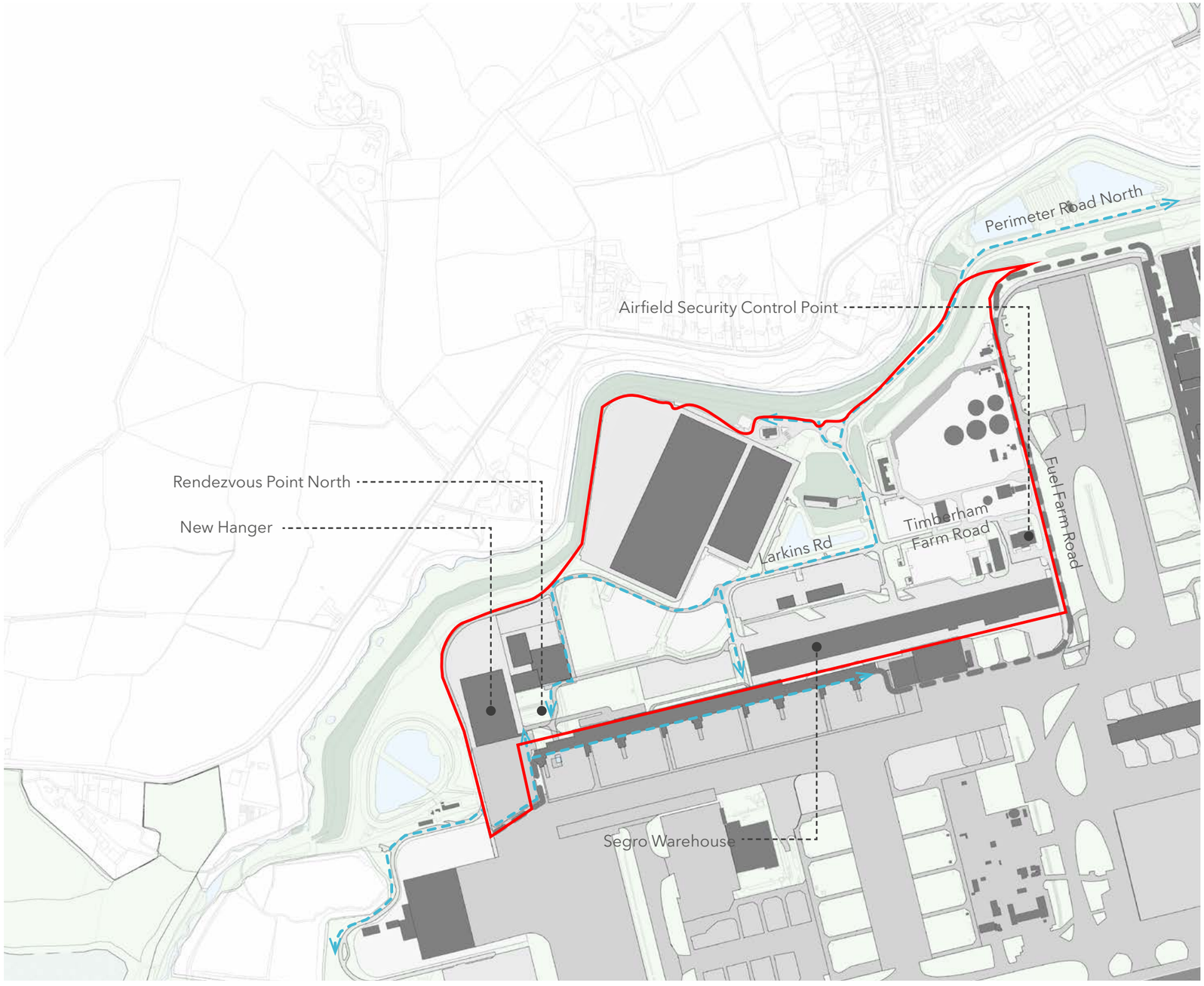


Figure 34. *Northwestern Zone Access Diagram*

5.7 NORTH TERMINAL CAMPUS ZONE

5.7.1 ZONE CHARACTERISTICS

5.7.1.1 The North Terminal Campus zone is one of the key passenger processing and commercial zones. It covers the northern area of the Gatwick estate as shown on Figure 35. The A23 London Road defines its northern boundary, with the River Mole and operational areas of the North-West zone to its west. The zone extends to the west to encompass the indicative Pier 7 site.

5.7.1.2 The zone contains the North Terminal building complex including the check-in and departure areas as well as baggage reclaim. The land use in this zone is primarily passenger-related with developments including hotels and multi-storey car parks. The North Terminal is well connected to the rest of Gatwick , with the ITTS connecting it to the South Terminal and Gatwick railway station.

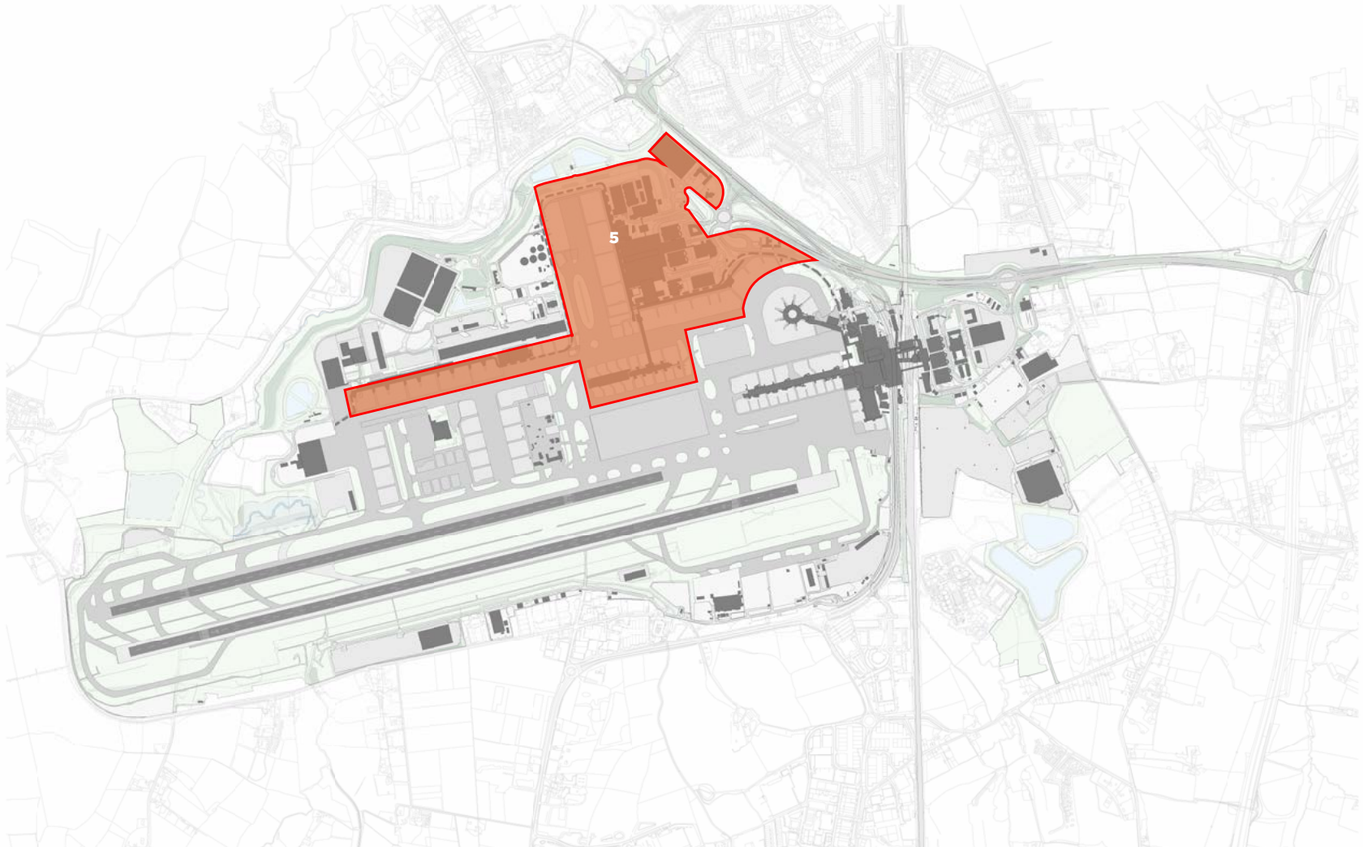


Figure 35. *Northern Terminal Campus Zone Characteristics*

Figure 36. *North Terminal Departures Level*

Figure 37. *Northern Terminal Forecourt*

Figure 38. *Northern Terminal Check-In*

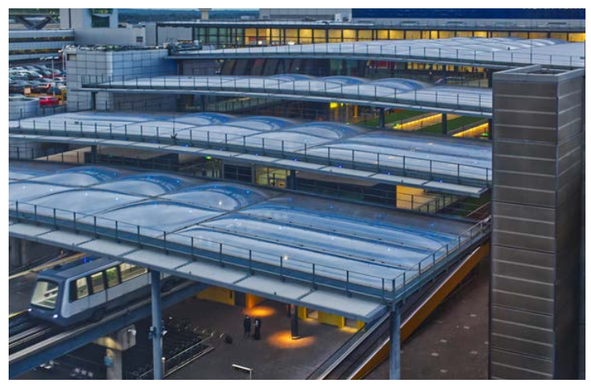


Figure 39. *Northern Terminal*

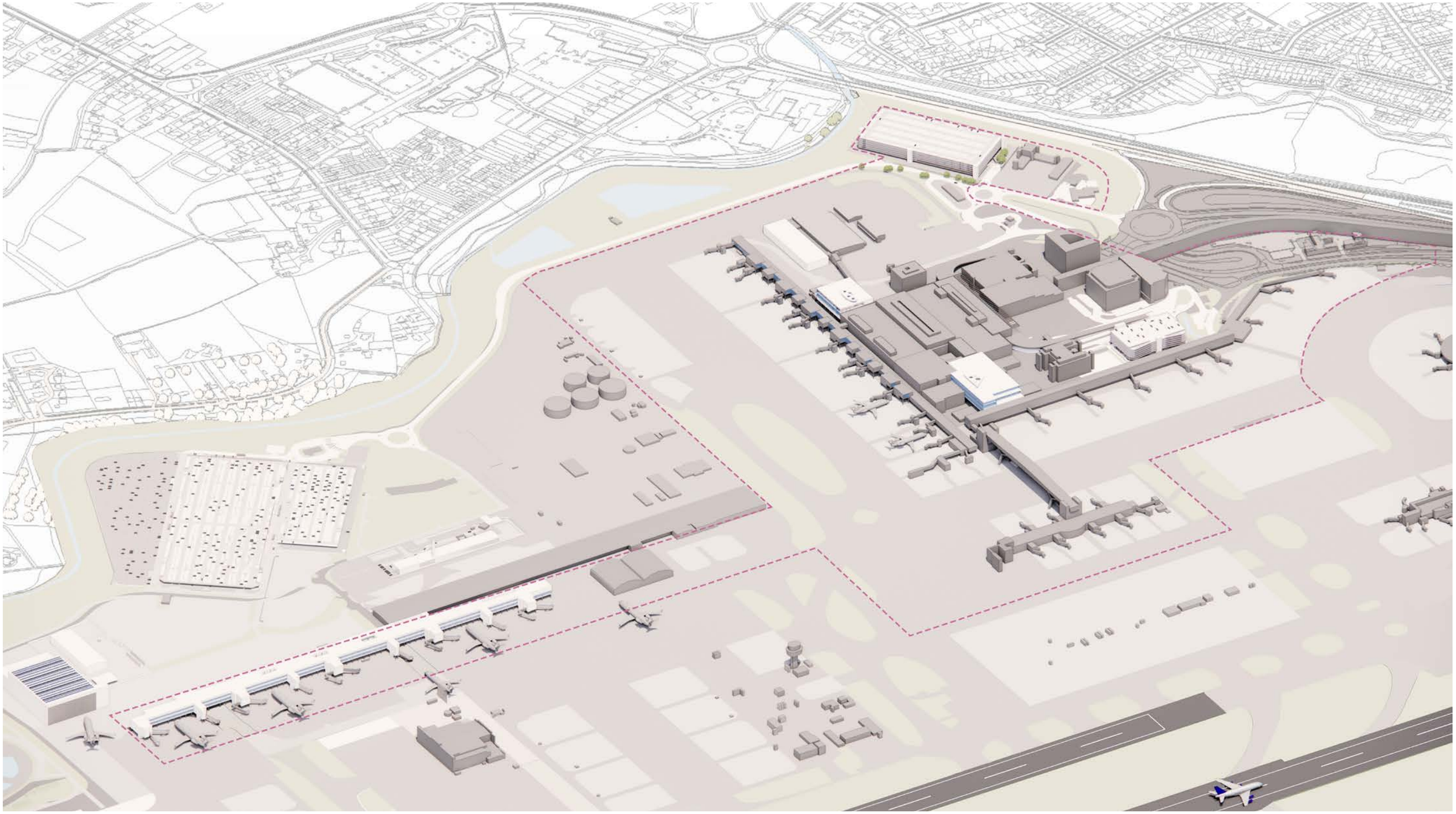


Figure 40. *Northern Terminal Campus Zone, Aerial View*

5.7.2 ZONE CONSTRAINTS

5.7.2.1 The zone is heavily constrained by the operational areas of the airfield, the terminal building and its piers as shown in darker grey. This combined with a number of commercial properties and businesses means any development needs careful consideration of the number and range of stakeholders affected.

5.7.2.2 There is a limited amount of vegetation within the zone, concentrated to the north of the terminal building adjacent to the River Mole corridor. Due to the large existing areas of impervious surface, the zone is susceptible to flood risk as illustrated on Figure 41.

5.7.2.3 There is a significant number of underground services that will require consideration as part of any redevelopment.

Figure 41. *North Terminal Campus Zone - Existing Site Constraints*

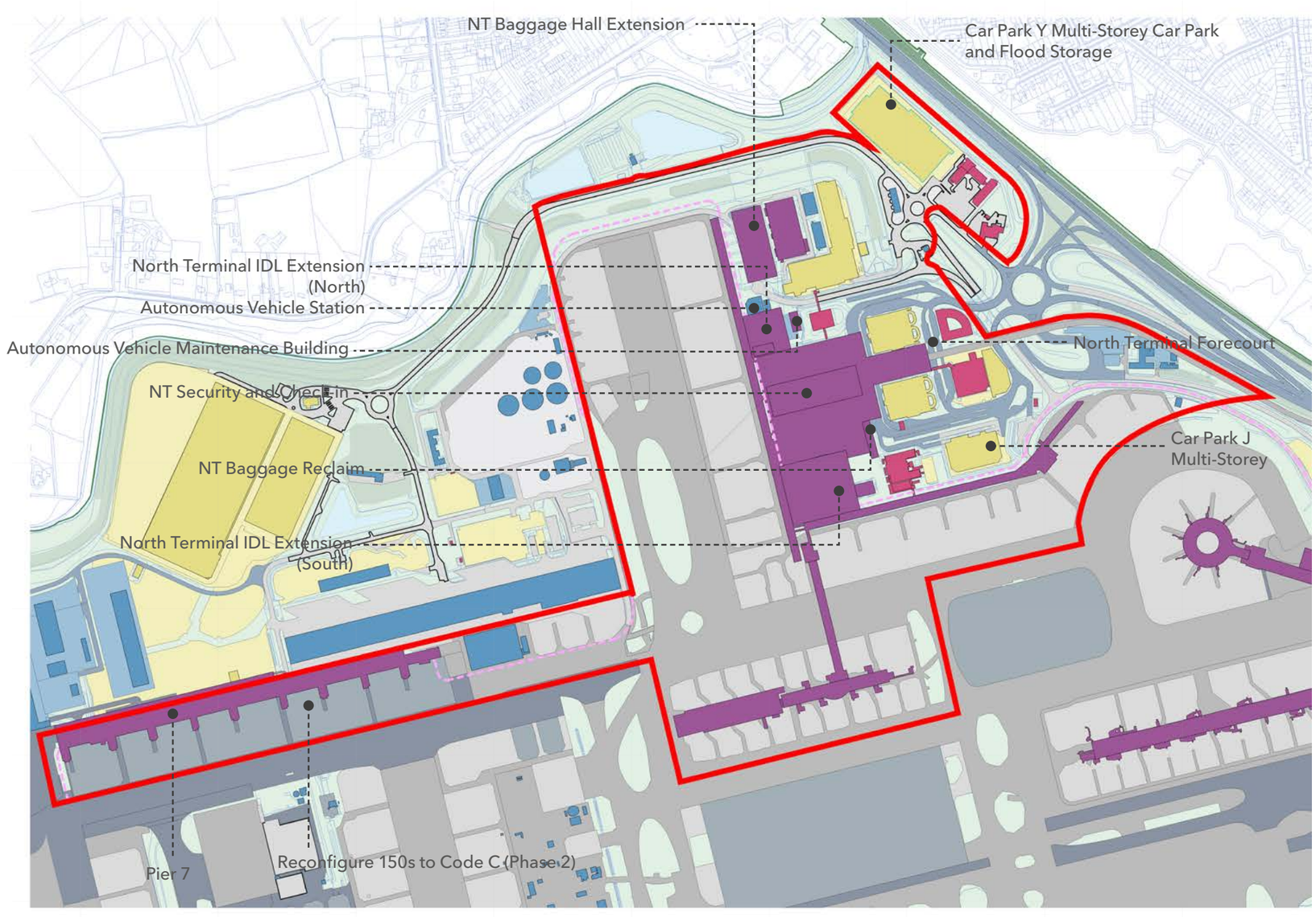
5.7.3 ZONE PROJECTS AND LAND USE

5.7.3.1 To support the expected growth in passenger numbers, the capacity of the terminals requires increasing. There are a number of 'in terminal' projects that are focused on increasing this capacity for a number of key operations in the passenger journey. These include check-in, the processing of baggage and immigration. The proposed land use illustrated on Figure 42 would remain consistent land uses.

5.7.3.2 There is also a demand to increase the passenger amenities provided, especially in the departures lounge with an increase in passenger dwell areas, retail, catering and airline lounges.

5.7.3.3 The projects indicatively proposed as part of the Northern Terminal zone include:

a. North Terminal International Departure Lounge (IDL) Extension (North & South);
b. North Terminal Baggage Reclaim;
c. North Terminal Security and Check-In Pier 7;
d. Autonomous Vehicle Route;
e. Autonomous Vehicle Maintenance Building;
f. Autonomous Vehicle Coaching Gates;
g. North Terminal Baggage Hall;
h. Northern Borders Office Spaces;
i. North Terminal Forecourt;
j. Car Park Y Multi-Storey Car Park & Flood Storage.



KEY

- Zone
- Terminal Buildings *
- Car Parking *
- Operational Buildings *
- Commercial *
- AV Route
- Airfield Stands
- Airfeild Taxiways
- Airfeild Runway
- Environmental Mitigation

* Darker shade indicates indicative buidling location on site

Figure 42. *North Terminal Campus Zone Projects & Land Use*

5.7.3.4 Extensions to the IDL will be to the north and south of the current facility as shown on Figure 43.

5.7.3.5 The northern expansion would occupy a footprint of approximately 3,300 square metres and result in additional floorspace of approximately 9,900 square metres over Levels 20, 30 and 40 to provide a mix of retail, catering and general circulation space. The ground floor would provide coaching facilities for autonomous vehicle transit to Pier 7.

5.7.3.6 The key design drivers are to create connectivity with the existing IDL and to provide a high quality passenger focused environment. The lounge is to provide experiential and immersive retail and food & beverage offers to the passengers.

5.7.3.7 The northern extension will create additional commercial area at Levels 20, 30 and 40 linking into the existing commercial offer in the lounge. The levels will be physically linked by escalators and a front of house (FOH) lift core.

5.7.3.8 The site sits to the north of the existing IDL in an area between Pier 5 and the link bridge to the transfer baggage facility (TBF). The extension will have an open shape promoting visibility of the commercial frontages. These will be reflected at each level allowing for good visual connection between levels with an atrium space with overlooking balconies at the upper levels. It is likely retail units will occupy the lower level with catering and airline lounges at the upper levels, reflecting the current retail strategy. The extension will provide views out for certain units either east or west over the airfield. Solar shading will be provided to limit glare and overheating on the southern facade.

5.7.3.9 The southern extension will occupy space over Levels 10, 20 and 30 and provide a mix of catering, retail and general circulation space. The site for the extension is between the IDL and Pier 4. Glazing to the west elevation will provide clear views over the airfield from the upper levels. The main connection to the existing IDL will be at Level 20, with an intuitive and clear visual link being made between the two areas.

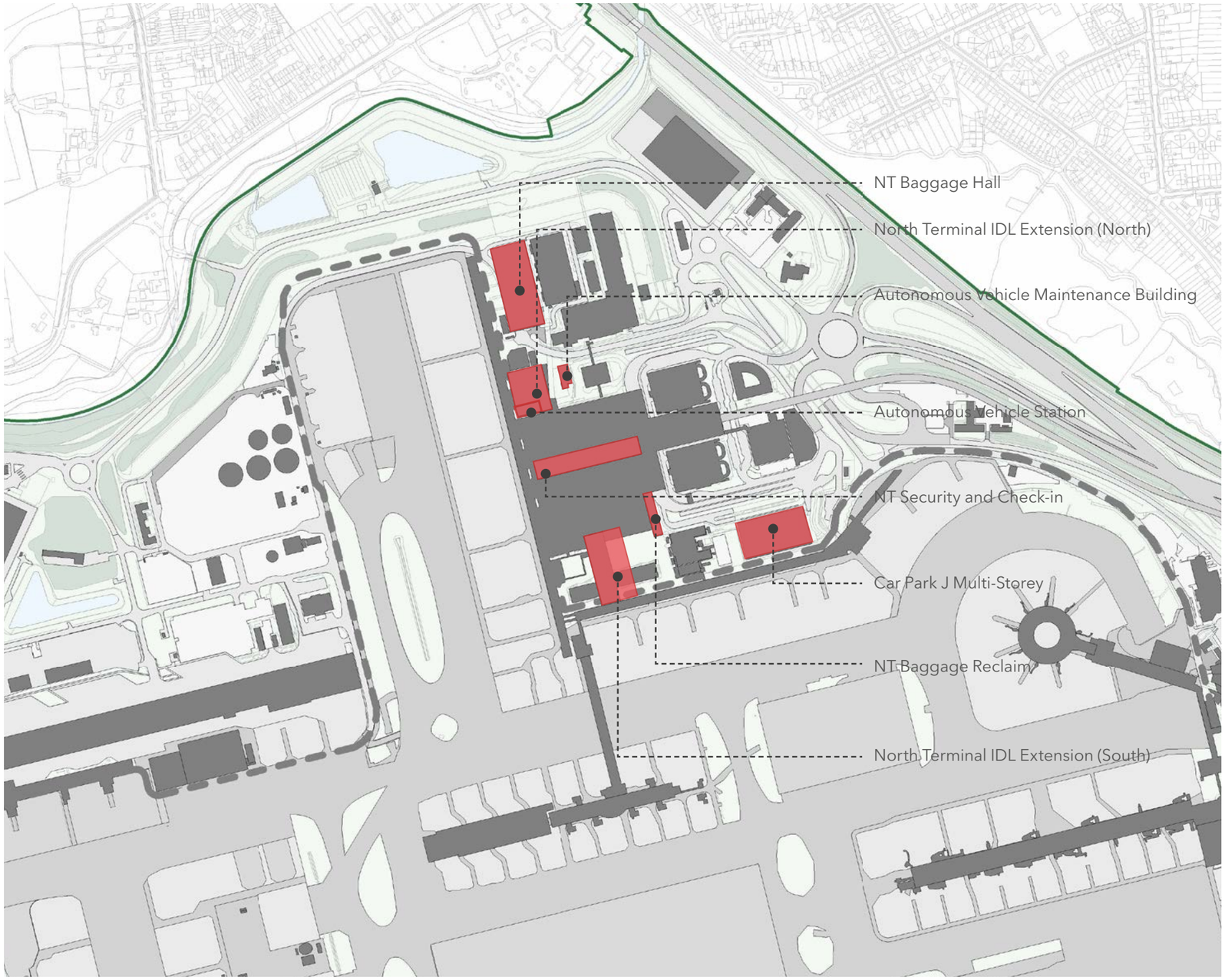


Figure 43. *Terminal Developments Site Context Plan*

5.7.4 AUTONOMOUS VEHICLE ROUTE

5.7.4.1 Pier 7 will need connections to the main terminals where passengers check-in and pass through security or for transferring passengers who leave or arrive from the pier. An airside route for autonomous vehicles will be created to form that link between Pier 7 and the North and South Terminal buildings as shown on Figure 45.

5.7.4.2 The exact vehicles that will be used will be determined in the future at an appropriate time, but they will be able to use normal road surfaces. Therefore, the route will use the existing road network and roads connecting the terminals including Racecourse Road, Tunnel Road and Fuel Farm Road.

5.7.4.3 A maintenance building will be required for the autonomous vehicles serving Pier 7. This will building will enable the maintenance and repair for up to 10% of the proposed autonomous fleet (up to six vehicles).

5.7.4.4 For operational efficiency, the building will be constructed airside close to the proposed autonomous vehicle route,near to the northern end of existing Pier 5. In additional to the workshop and storage areas, staff welfare and offices will be provided.

5.7.4.5 Autonomous vehicle stations will be established to connect passengers between the North Terminal and Pier 7 using the autonomous vehicle route. Figure 45 shows the indicative location of the station which will be situated along the airfield road network adjacent to existing Pier 5. At this location is the existing International Arrivals Coaching Station.

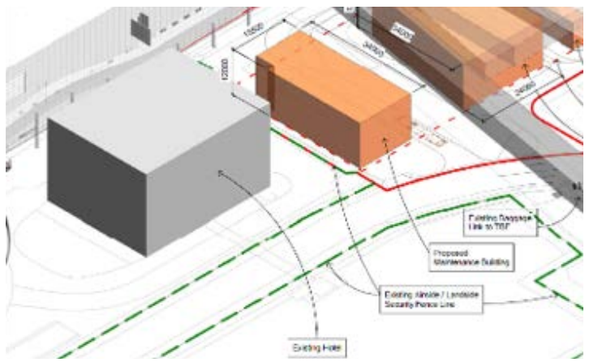


Figure 44. *Indicative Massing of Autonomous Vehicle Maintenance Building*

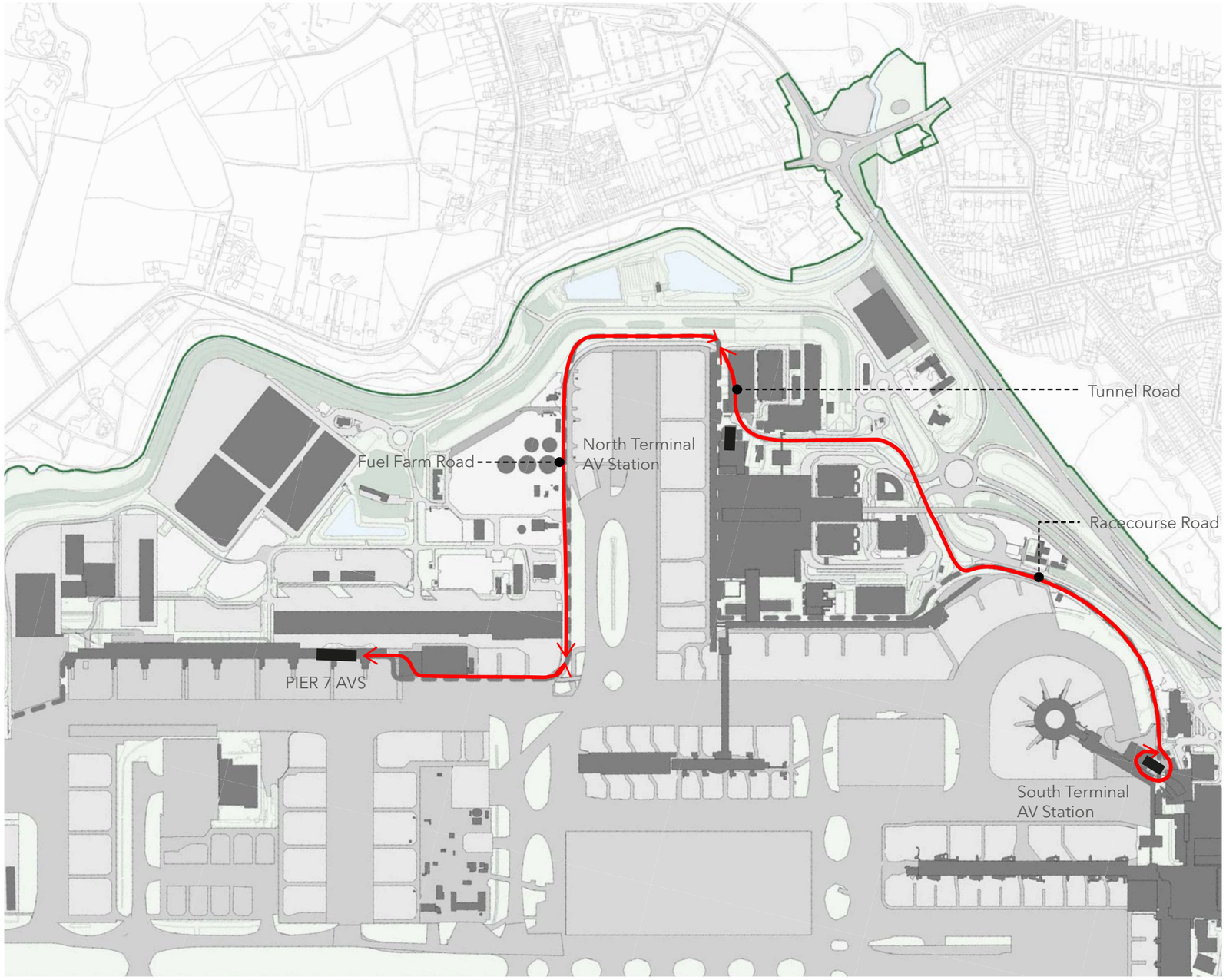


Figure 45. *Autonomous Vehicles Route Indicative Site Plan*

5.7.5 TERMINAL ARRANGEMENT

5.7.5.1 To support the expected growth in passenger numbers the capacity of the terminals increases.

5.7.5.2 There are a number of 'In Terminal' projects that are focused on increasing this capacity for a number of key operations in the passenger journey. These include check-in, the Figures 46 to 49 show the layout of the existing terminal and the indicative locations of the proposed works at each level.

5.7.5.3 The figures below represent the 'In Terminal' project scopes and their passenger flow from Level 00 (Operational Level) to Level 30 (Departures Level).

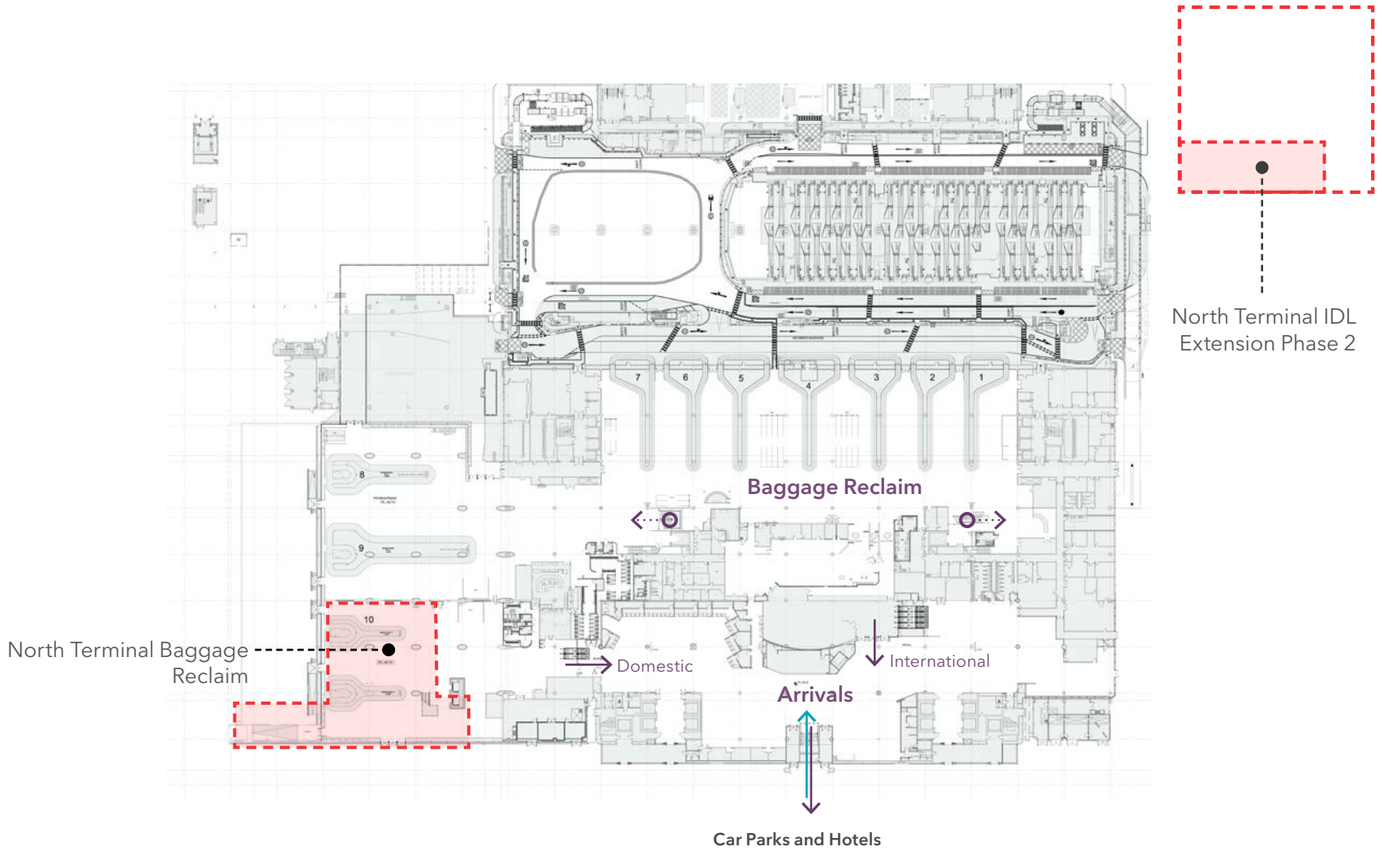


Figure 46. *North Terminal* Indicative *Scope Location Plan Level 00*

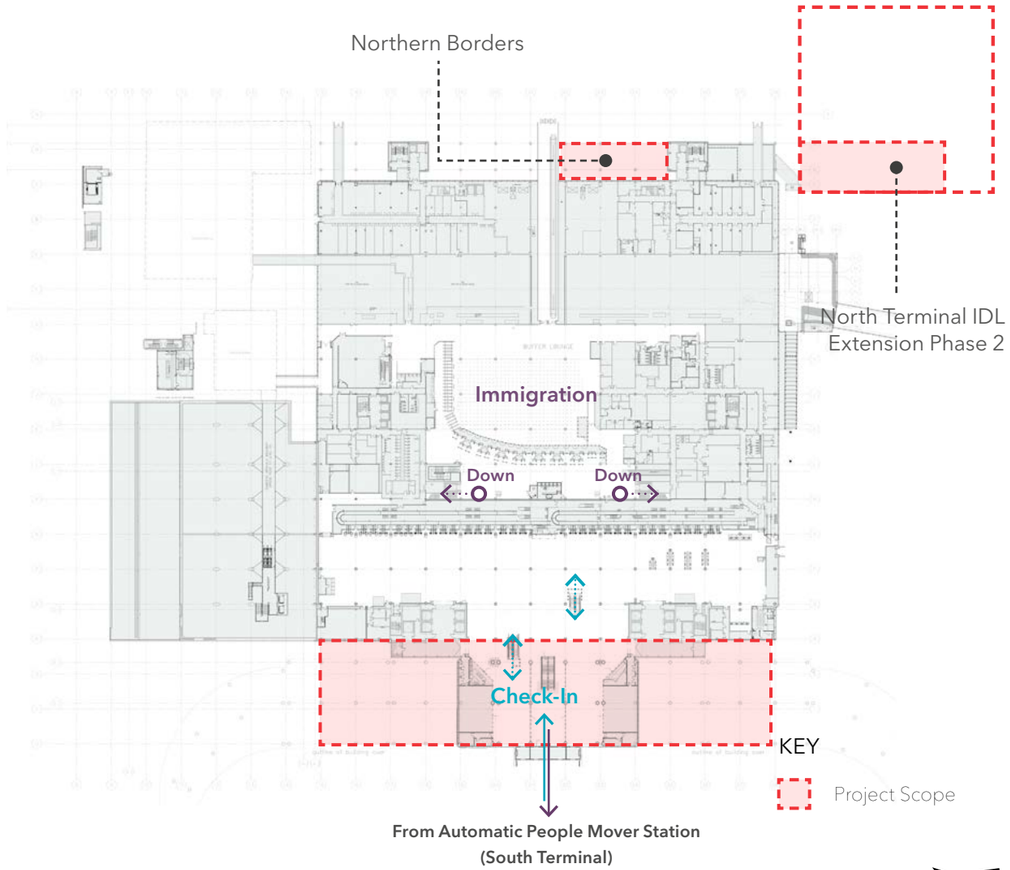


Figure 47. *North Terminal* Indicative *Scope Location Plan Level 10*

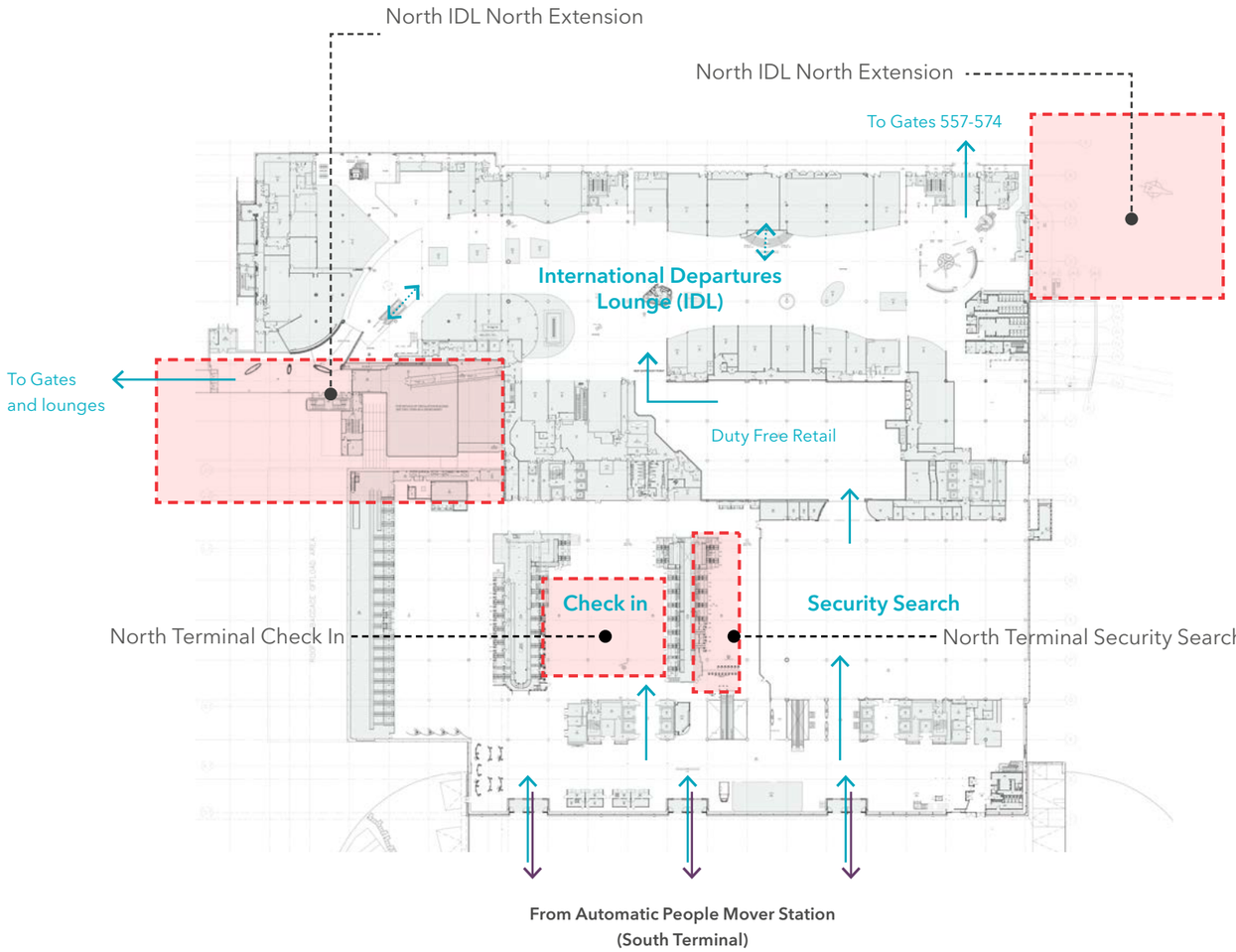


Figure 48. *North Terminal* Indicative *Scope Location Plan Level 20*

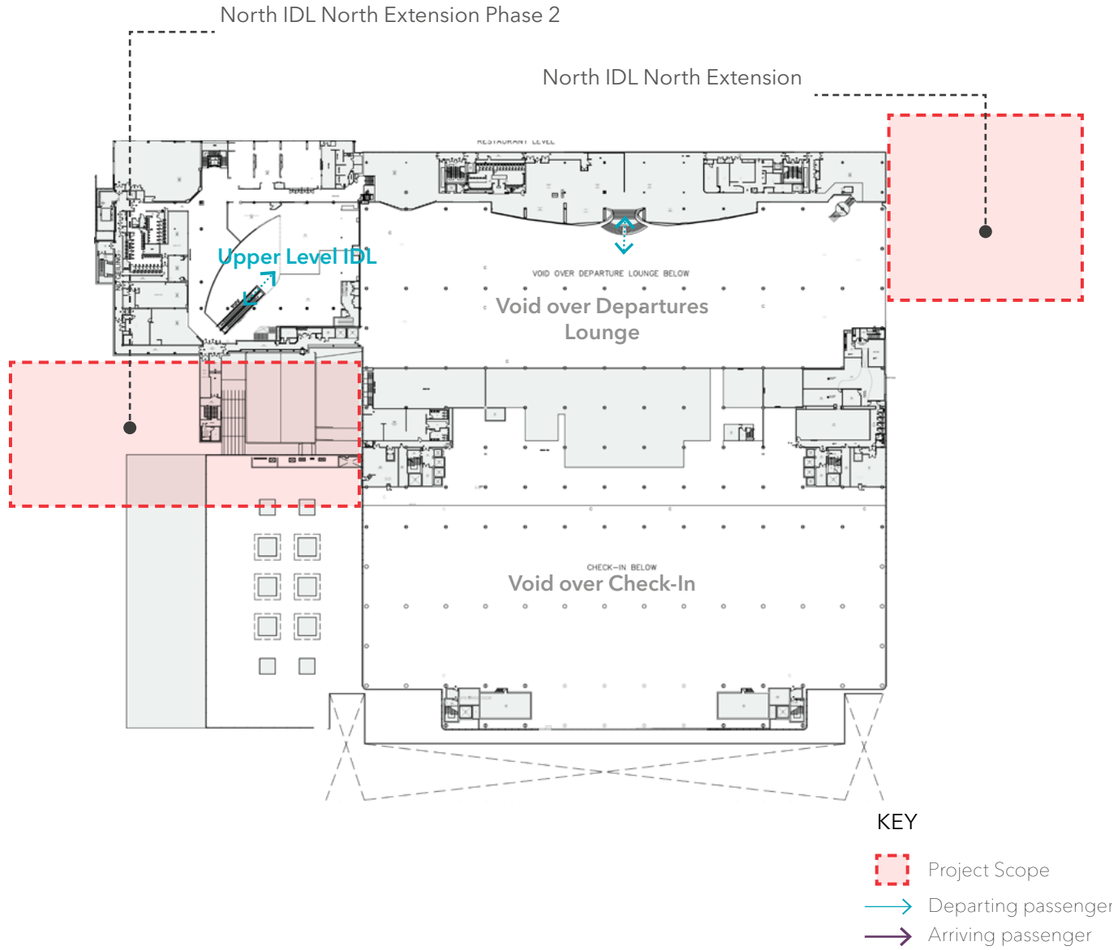


Figure 49. *North Terminal* Indicative *Scope Location Plan Level 30*

5.7.6 NORTH TERMINAL IDL EXTENSIONS

5.7.6.1 Extensions to the International Departure Lounge (IDL), to both the north and south of the current facility are required to accommodate the expected increase in passenger numbers. The IDL will be extended in two locations, with an area to the North of the existing lounge and one to the South as shown on Figure 50.

5.7.6.2 The key design drivers are to create connectivity with the existing IDL and to provide a high quality passenger focused environment.

5.7.6.3 The lounge is to provide experiential and immersive retail and food & beverage offers to the passengers.

5.7.6.4 The northern extension will create additional commercial area at Levels 20, 30 and 40 linking into the existing commercial offer in the lounge. The levels will be physically linked by escalators and a front of house (FOH) lift core. Figure 51 provides an illustration of the proposed internal layout of the proposed extension to the North Terminal

5.7.6.5 The site sits to the north of the existing IDL in an area between Pier 5 and the link bridge to the transfer baggage facility (TBF). The extension will have an open shape promoting visibility of the commercial frontages. These will be reflected at each level allowing for good visual connection between levels with an atrium space with overlooking balconies at the upper levels.

5.7.6.6 It is likely retail units will occupy the lower level with catering and airline lounges at the upper levels, reflecting the current retail strategy. The extension will provide views out for certain units either east or west over the airfield. Solar shading will be provided to limit glare and overheating on the southern facade.

5.7.6.7 Remote storage will be provided at level 10 with a back of house service lift linking it to the upper levels.

5.7.6.8 The **northern extension** will occupy a footprint of approximately 3,300 square metres and result in additional floorspace of approximately 9,900 square metres over the 3 levels. The extension will be up to approximately 32.5 metres in height (above ground level). The indicative massing of the proposed extension is shown on Figure 54.

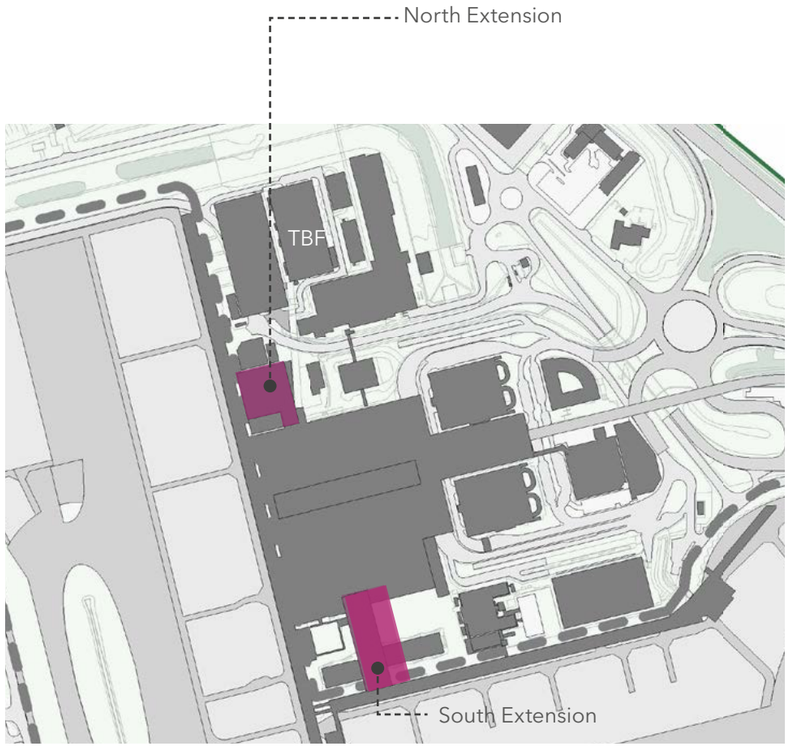


Figure 50. *North Terminal IDL Extension Site Context Plan*

Figure 51. *IDL Extension Level 20 Plan Showing Connection into existing IDL*

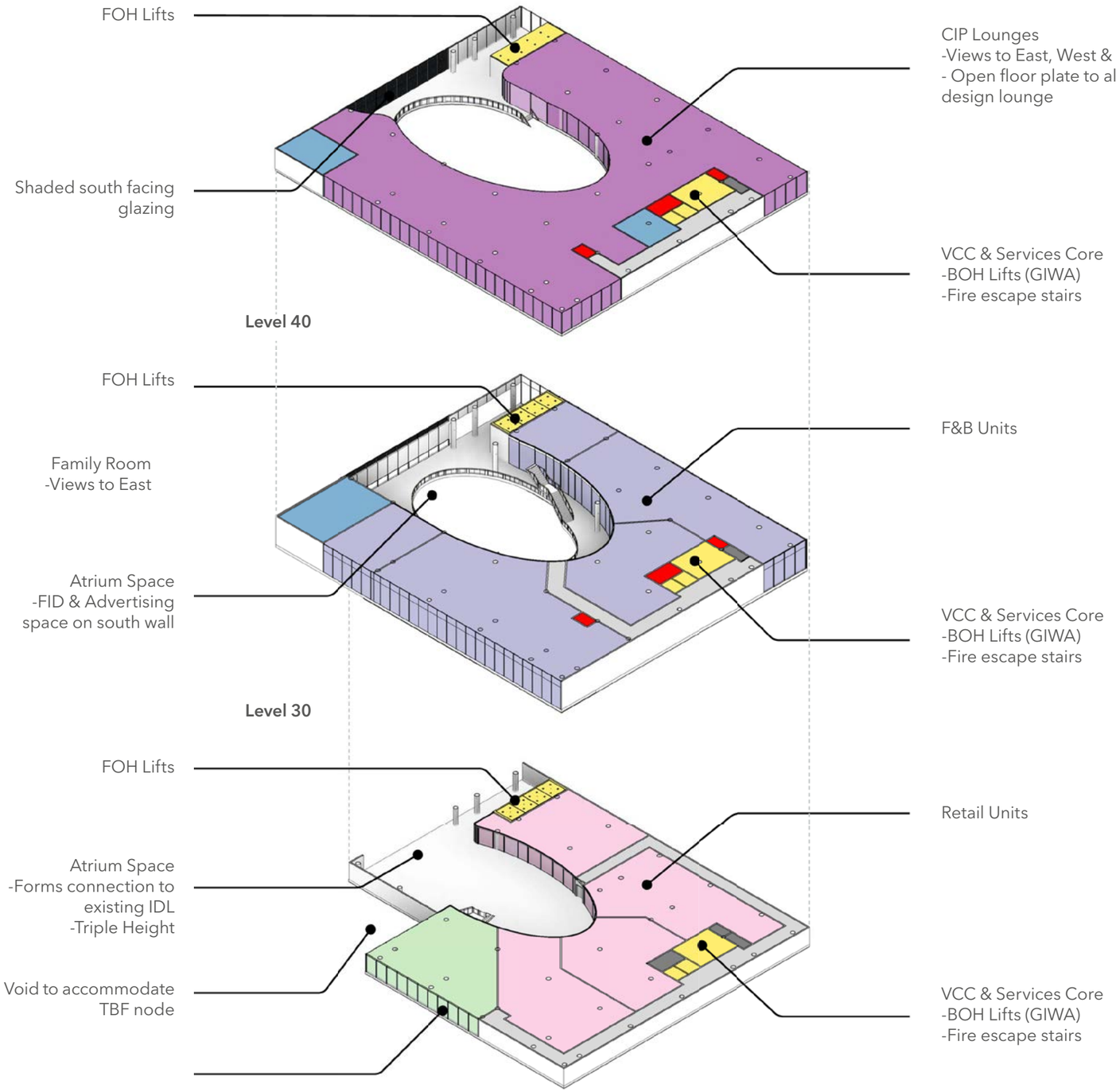


Figure 52. *North Terminal IDL Extension Indicative Axonometric*

NORTH TERMINAL CAMPUS ZONE

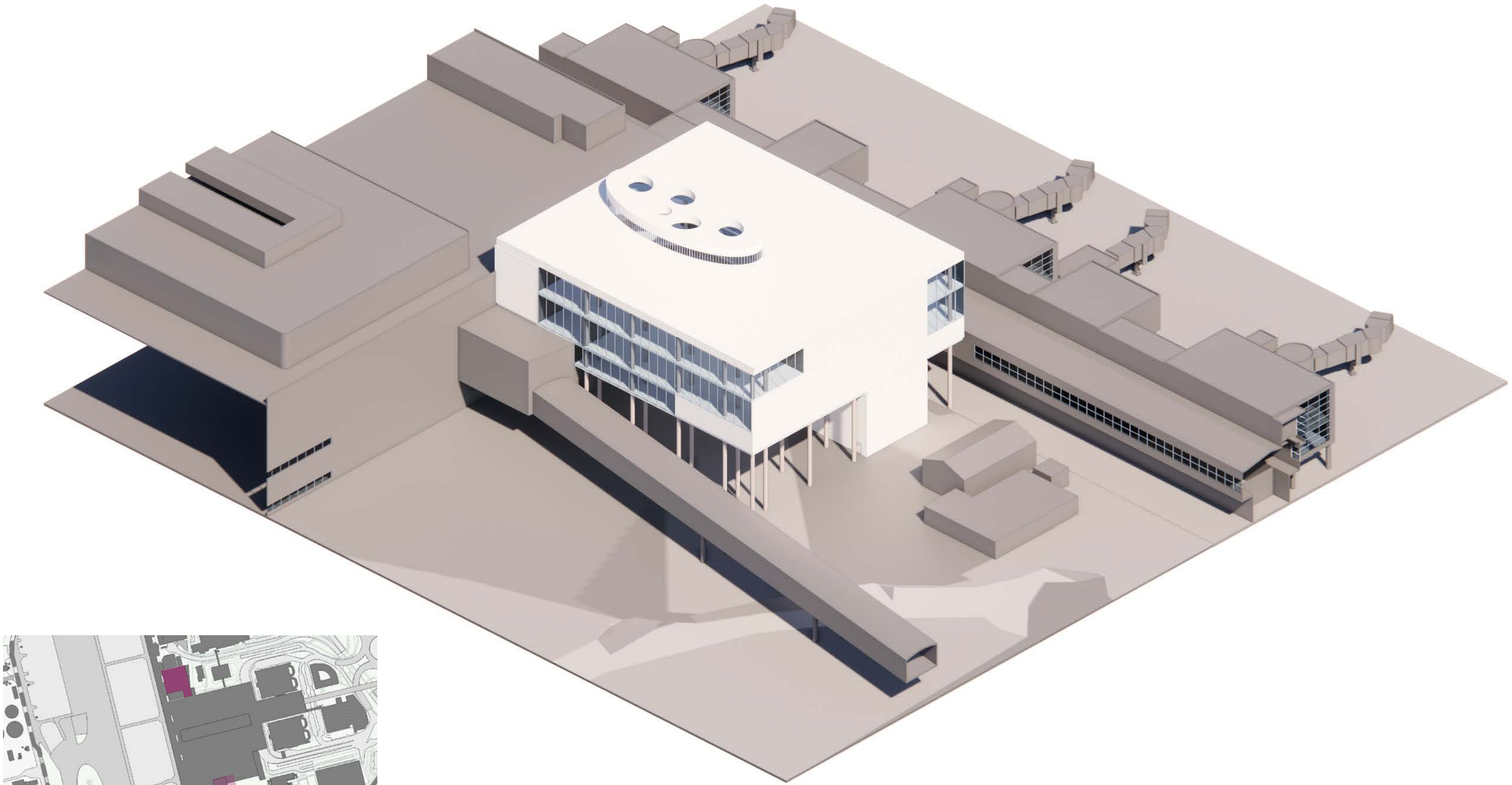


Figure 53. *North Terminal IDL Extension (North) Site Context Plan*

Figure 54. *Indicative Massing of Project - IDL North Extension*

5.7.6.9 The **southern extension** (location shown on Figure 56) will occupy space over Levels 10, 20 and 30 and provide a mix of catering, retail and general circulation space. The site for the extension is between the IDL and Pier 4. Figure 55 illustrates an indicative cross-section of the proposed extension to the south including the proposed uses per level. Figure 59 provides an illustration of the indicative massing of the southern extension.

5.7.6.10 Glazing to the west elevation will provide clear views over the airfield from the upper levels.

5.7.6.11 The main connection to the existing IDL will be at Level 20, with an intuitive and clear visual link being made between the two areas.

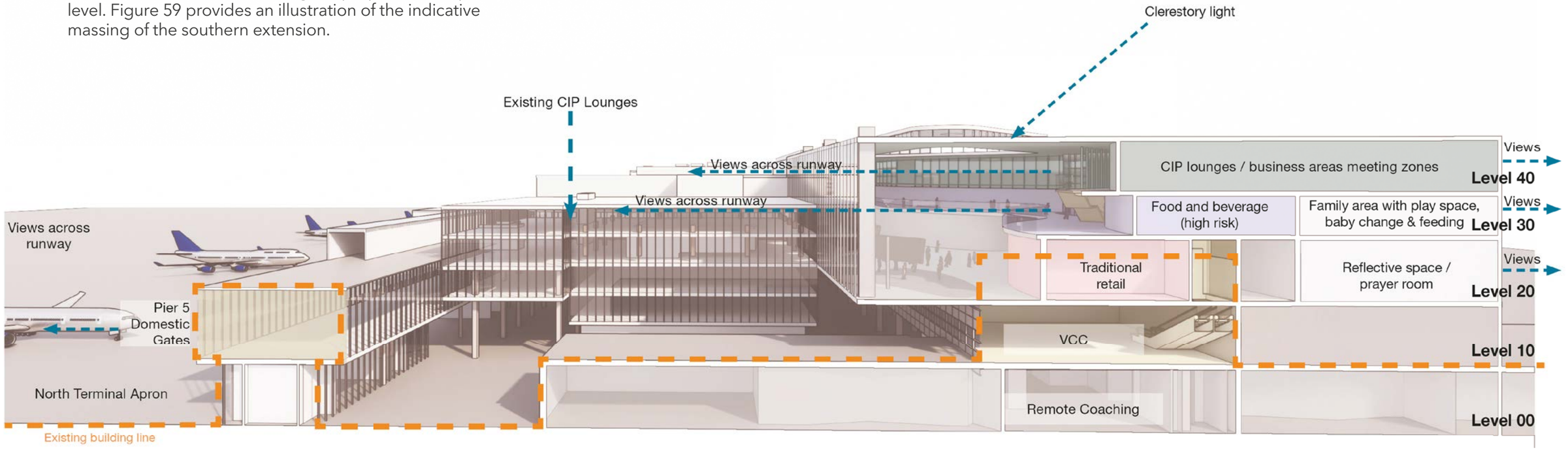


Figure 55. *North Terminal Campus Site Section*

Figure 56. *North Terminal IDL Extension (South) Site Context Plan*

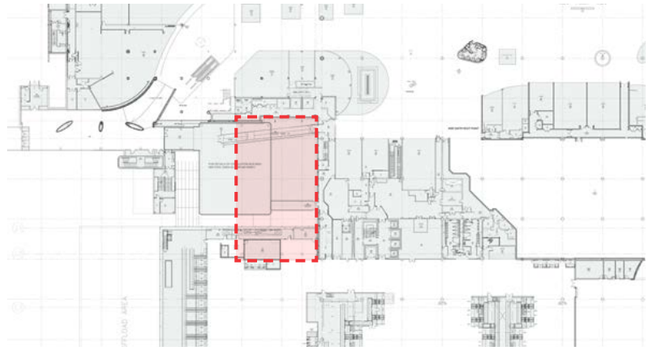


Figure 57. *Indicative LL20 Plan*

NORTH TERMINAL CAMPUS ZONE

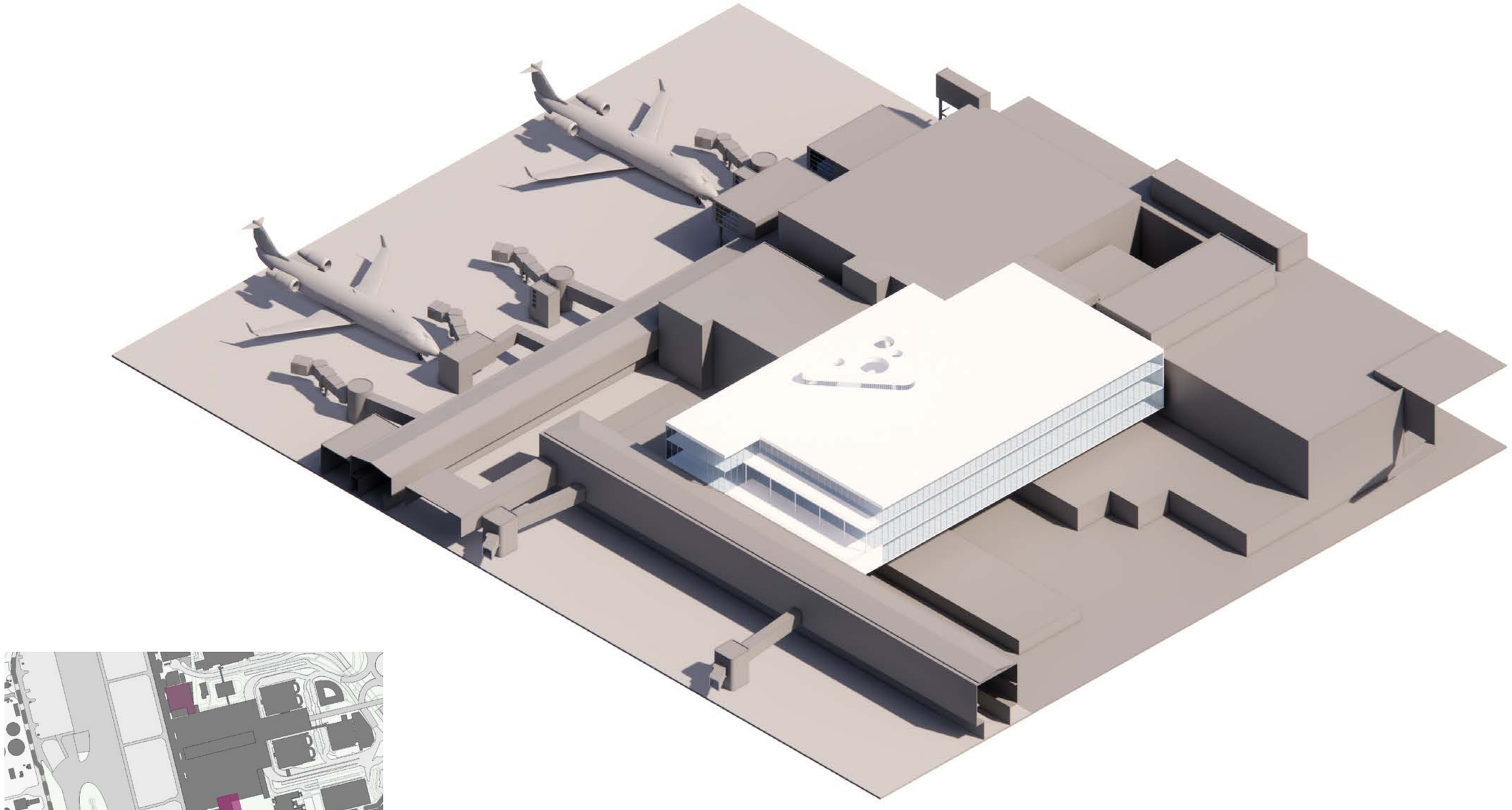


Figure 58. *North Terminal IDL Extension (South) Site Context Plan*

Figure 59. *Indicative Massing of Project - North Terminal IDL South Extension*

5.7.7 NORTH TERMINAL BAGGAGE RECLAIM

5.7.7.1 Additional capacity at the international arrivals baggage reclaim is required to meet the demand expected as a result of increased passenger numbers. To provide this capacity, the existing reclaim area will be extended into the existing domestic departures reclaim area which will in turn be extended further to replace the lost provision. The indicative massing of the extension to the baggage reclaim area is shown in green on Figure 61.

5.7.7.2 Carousels 8, 9, 10 and 11 (shown on Figure 62) will be configured as international arrivals reclaim carousels by relocating the partition wall between the international and domestic boundaries. An extension at apron level will be required for Carousel 12 to provide the necessary space and the routes for passenger access and circulation.

5.7.7.3 The terminal building will be extended to provide the additional area and re-provide the domestic reclaim area.

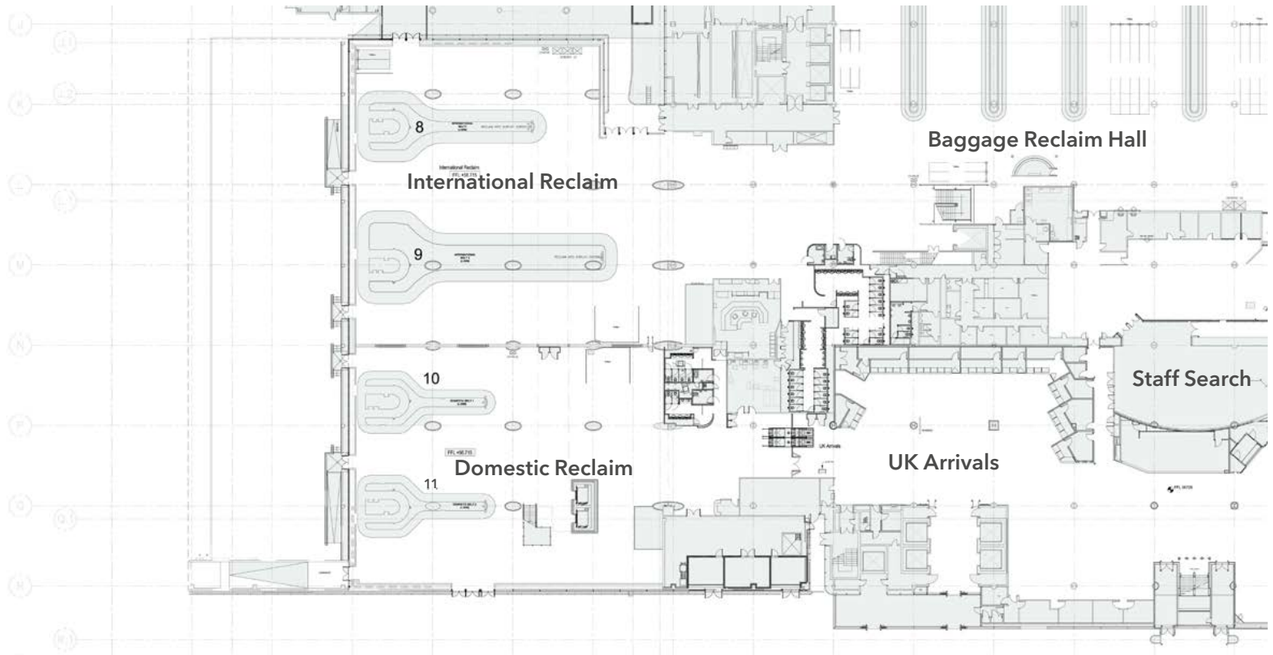


Figure 60. *North Terminal Baggage Reclaim Indicative Plan Level 00*

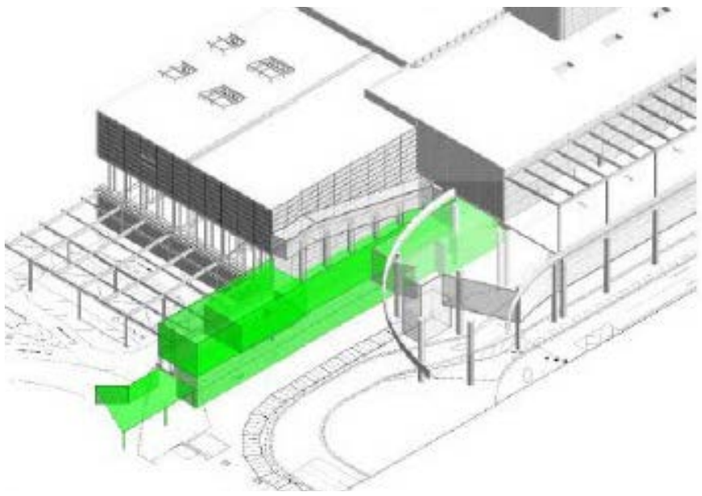


Figure 61. *North Terminal Baggage Reclaim Extension Indicative Massing*

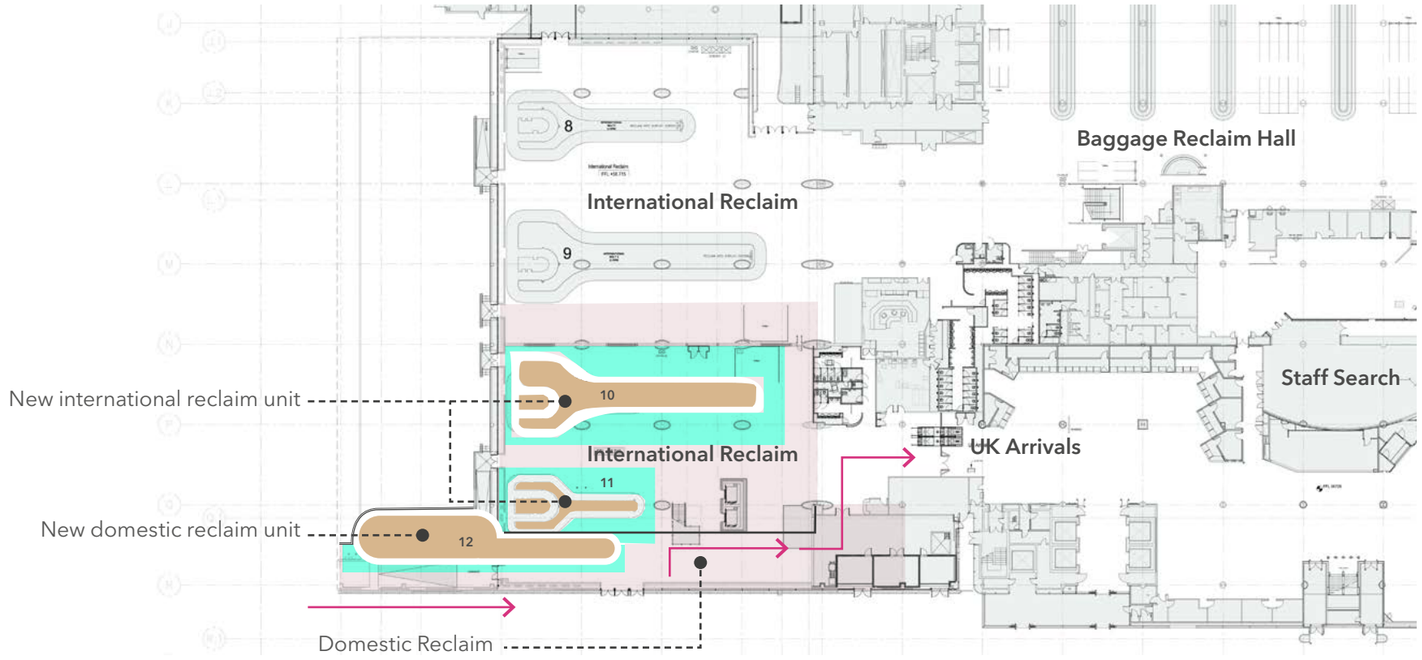


Figure 62. *North Terminal Baggage Reclaim Indicative Plan Level 00*

5.7.8 NORTH TERMINAL SECURITY AND CHECK-IN

5.7.8.1 Increased passenger numbers will require passenger process capacity to be increased in the North Terminal. This will expand the check in facilities and security search and require two projects to be undertaken.

5.7.8.2 **North Terminal Central Search:** reconfiguration of the existing check-in/ security boundary to create space for two additional security lanes. This includes removal of part of the current check-in facilities, re- provision of the secure boundary wall. This reconfiguration will allow for the provision of two new security scanner machines. The entrance and exit into the Central Search Area remains as existing. The location of these works are shown in pink on Figure 63.

5.7.8.3 **North Terminal Check-In Level 20:** The additional check-in capacity will be provided in two stages. The location of these works are shown in green on Figure 63 Firstly, additional check-in desks will be provided in Zones E & D of the level check-in hall. Following, a total of 64 check-in kiosks will be provided centrally and with two sets of 14 bag drops replacing the existing zone E and D check-in counters. A clear route will be maintained in the zone to allow access to the counters unchanged in the area.

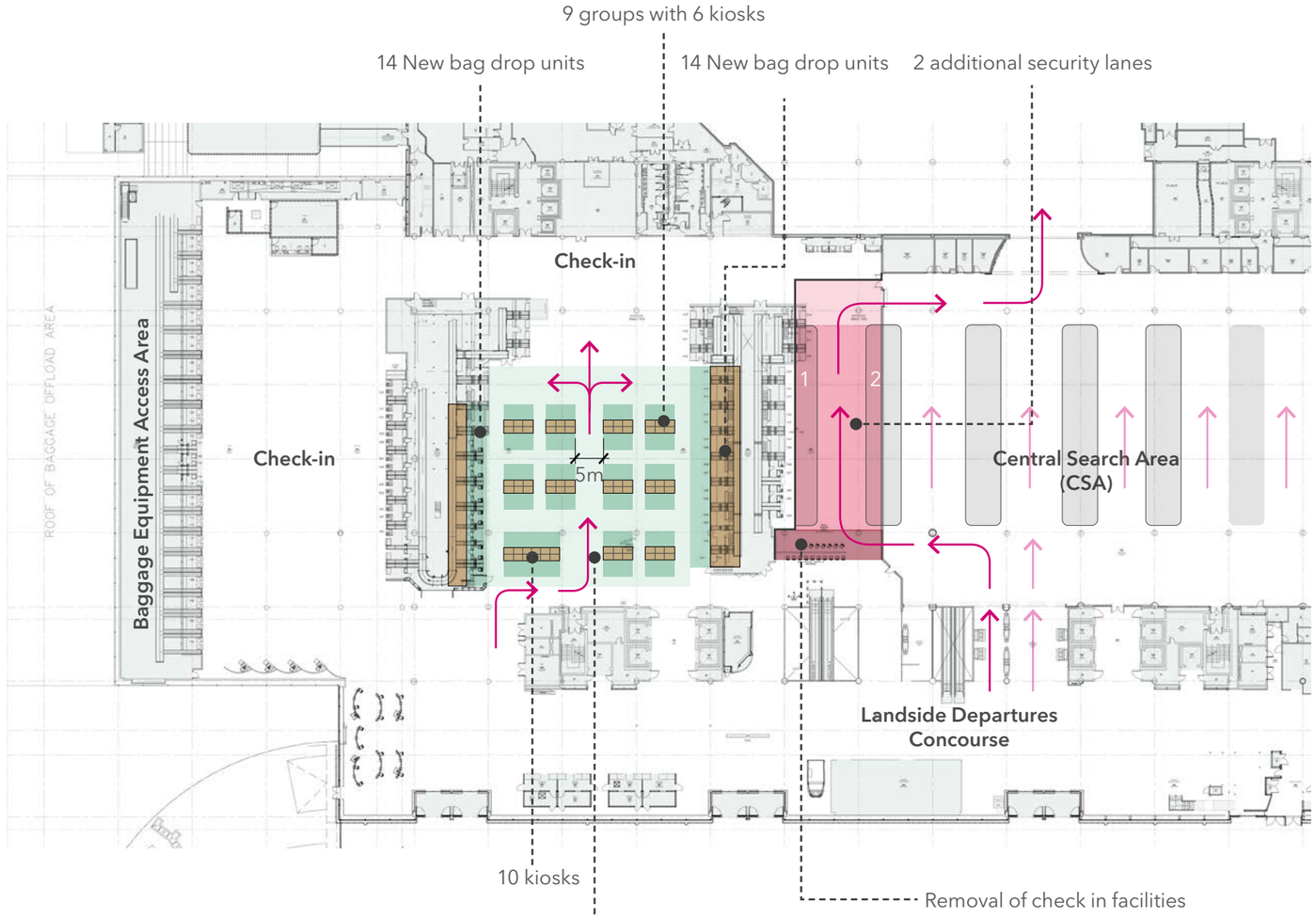


Figure 63. *Check-In and Central Search Indicative Plan Level 20*

5.7.9 CHECK-IN LEVEL 10

5.7.9.1 An extension is indicatively proposed at Level 10 to provide approximately 45% extra check-in floor area. The indicative location of the extension is illustrated in green on Figure 64. This will provide space for an additional 60 self-service bag drop units and queuing and circulation space in front.

5.7.9.2 The area would be accessed from the North Terminal ITTS station at this level and once the passengers have checked in their baggage they would use the vertical circulation lifts and escalators to go up to security at Level 20.

5.7.9.3 Collector lines would be routed such that they connect with the spine route of the existing baggage system located in the Main Bag Hall.

5.7.9.4 To service the new space, dedicated plant rooms will be connected to the new floor plates which are located under the existing vehicle ramps above.

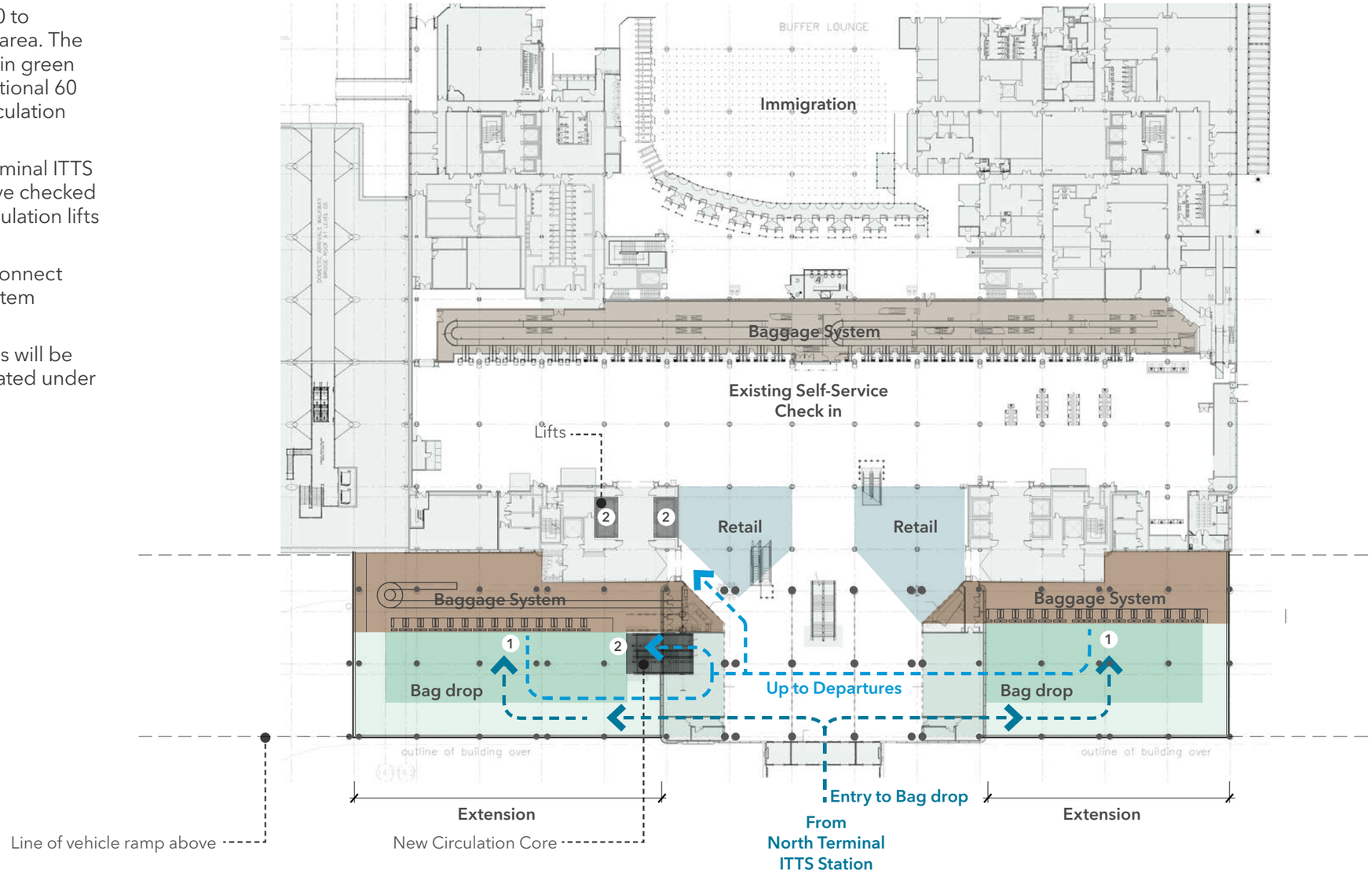


Figure 64. *Check-In Indicative Plan Level 10*

5.7.10 PIER 7

5.7.10.1 Additional aircraft stands and passenger gates are required to respond to the increase in passenger numbers and new pier is indicatively proposed to provide this capacity (Pier 7).

5.7.10.2 The site identified for Pier 7 is in the north west area of the airfield as shown on Figure 65. The site is currently occupied by a mix of existing apron, car parking and a land-side road which is depicted on Figure 73. The area identified for the development encroaches on part of the land currently owned by Cargo operators which will be reconciled as part of the Project.

5.7.10.3 On the eastern half of the site, there is a large cargo building, owned by Segro, and accompanying outdoor compound with direct access onto the apron. Between the cargo building and the taxi-way are existing EasyJet hangars, east of the indicatively proposed development area. There are also number of watercourses and substations in the area.

5.7.10.4 Pier 7 will consist of 9 large Code E stands or 14 Code C stands and will be served by the indicative Taxiway Lima extension. The indicative built form is illustrated in Figure 67.

5.7.10.5 The new pier will be split over three levels. The ground level as shown on Figure 68 will include an autonomous vehicle station which will be where passengers arrive from the North and South Terminals. Accommodation at this level will be limited, with waiting areas located in the station area and plant rooms for the building.

5.7.10.6 From the ground level, the passengers would circulate up to the first floor level. This level will be set high enough to allow for vehicles to pass under on the airside access road which serves the adjacent new hangar building. The first floor will have gates with passenger waiting areas, retail and catering units, passenger facilities such as WCs and airline lounges.

5.7.10.7 The second level will have circulation routes for arriving passengers, [1]toilets, servicing and administration functions These uses are depicted on Figure 68.

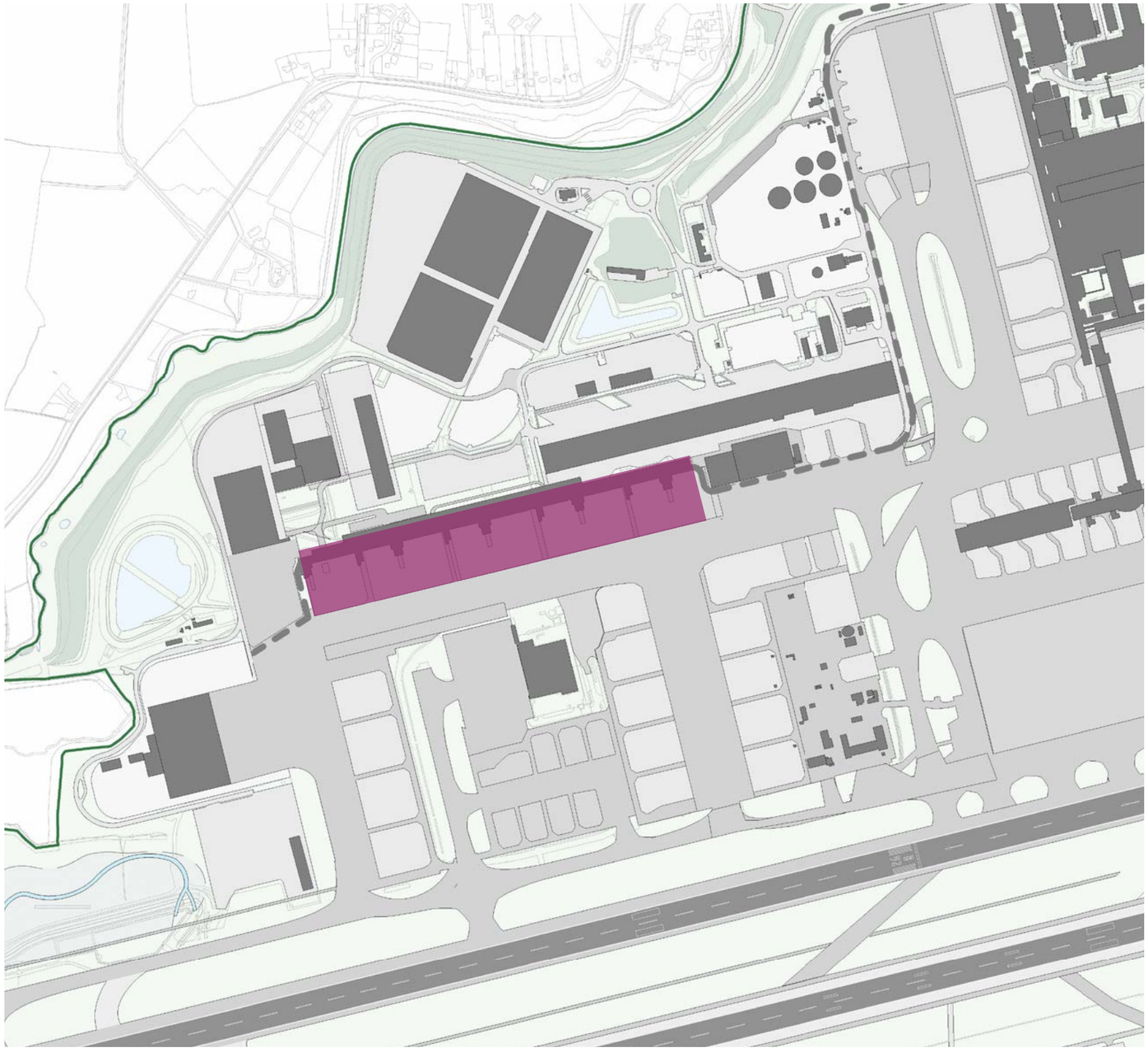


Figure 65. *Pier 7 Overall Site Location*

5.7.10.8 The form of Pier 7 is driven by the function it serves, with a linear form governed by the stand width and by the gate seating and circulation requirements along this length. As illustrated in Figure 66, there is also a repeated rhythm along the facade formed by each of the stair cores and jet bridges. These link the internal gate at first floor down to the apron level (for access to the plane via its own stairs from the apron) or direct onto the plane via the moveable 'jet bridge'.

5.7.10.9 Views out over the airfield and natural light are important to the quality of the internal spaces and will be provided for by large areas of glazed facade. However, with the airfield facade being south-facing, care is needed in its treatment to avoid solar glare or over heating of the space.

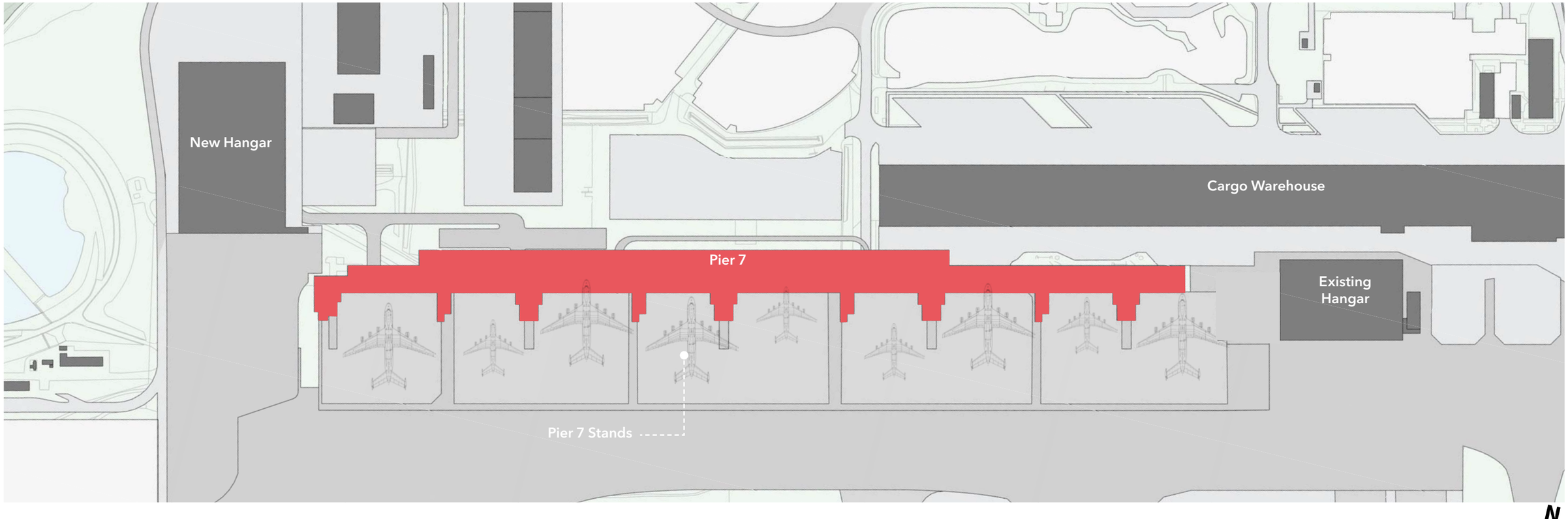


Figure 66. *Pier 7 Indicative Site Plan*

NORTH TERMINAL CAMPUS ZONE

KEY

- Arrivals
- Departures
- Gate Rooms
- Maintenance
- Nodes
- Other
- Passenger Amenities
- Passenger Amenities - Retail
- Services
- Services - Electrical
- Staff Amenities
- Stand
- Vertical Circulation

Figure 67. *Airfield View of Pier 7*

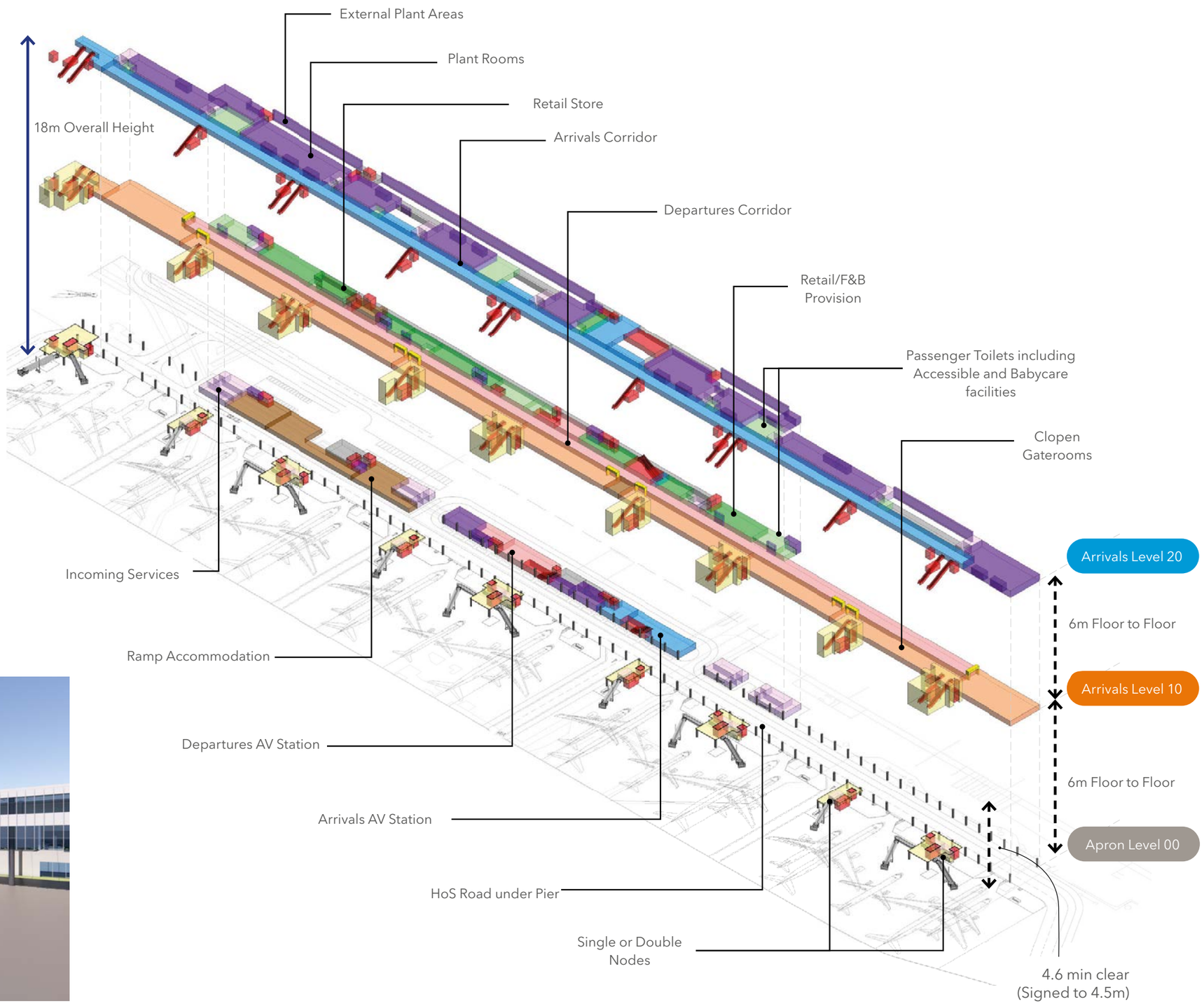


Figure 68. *Pier 7 Axonometric*

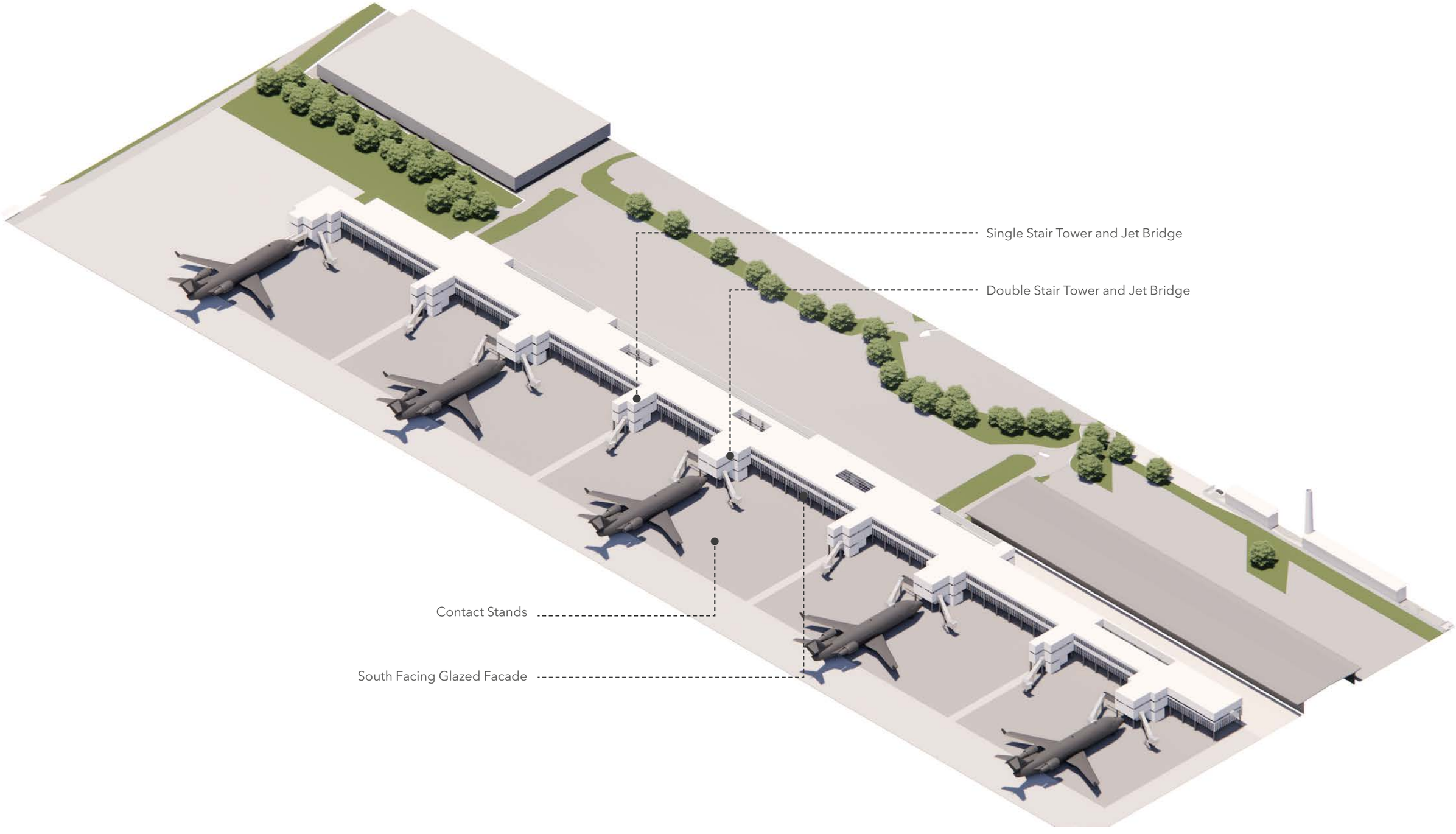


Figure 69. *Indicative Massing of Pier 7*

5.7.11 NORTH TERMINAL BAGGAGE HALL

5.7.11.1 An expansion of the existing baggage facilities at the North Terminal is required to allow for increased baggage handling capacity. The extension will be over an area of approximately 6,552 square metres, span two storeys and reaching a maximum height of 12.5 metres above ground level. The indicative massing is on Figure 71.

5.7.11.2 The site, located next to the existing Transfer Baggage Facility and Pier 5, is currently used for Ground Support Equipment parking and other operational services, and has enough room for 70 'make-up positions' which sort and process the baggage.

5.7.11.3 The new facility will establish a direct connection between the terminal check-in areas and the existing baggage system to the new make-up facility. To ensure seamless integration, the scope includes a link bridge connecting the North Terminal Main Baggage Hall and the Transfer Baggage Facility building.

5.7.11.4 The facility will house the baggage handling system, as well as support functions like offices, storage areas, and service rooms for the equipment.

Figure 70. *NT Baggage Hall Site Context Plan*

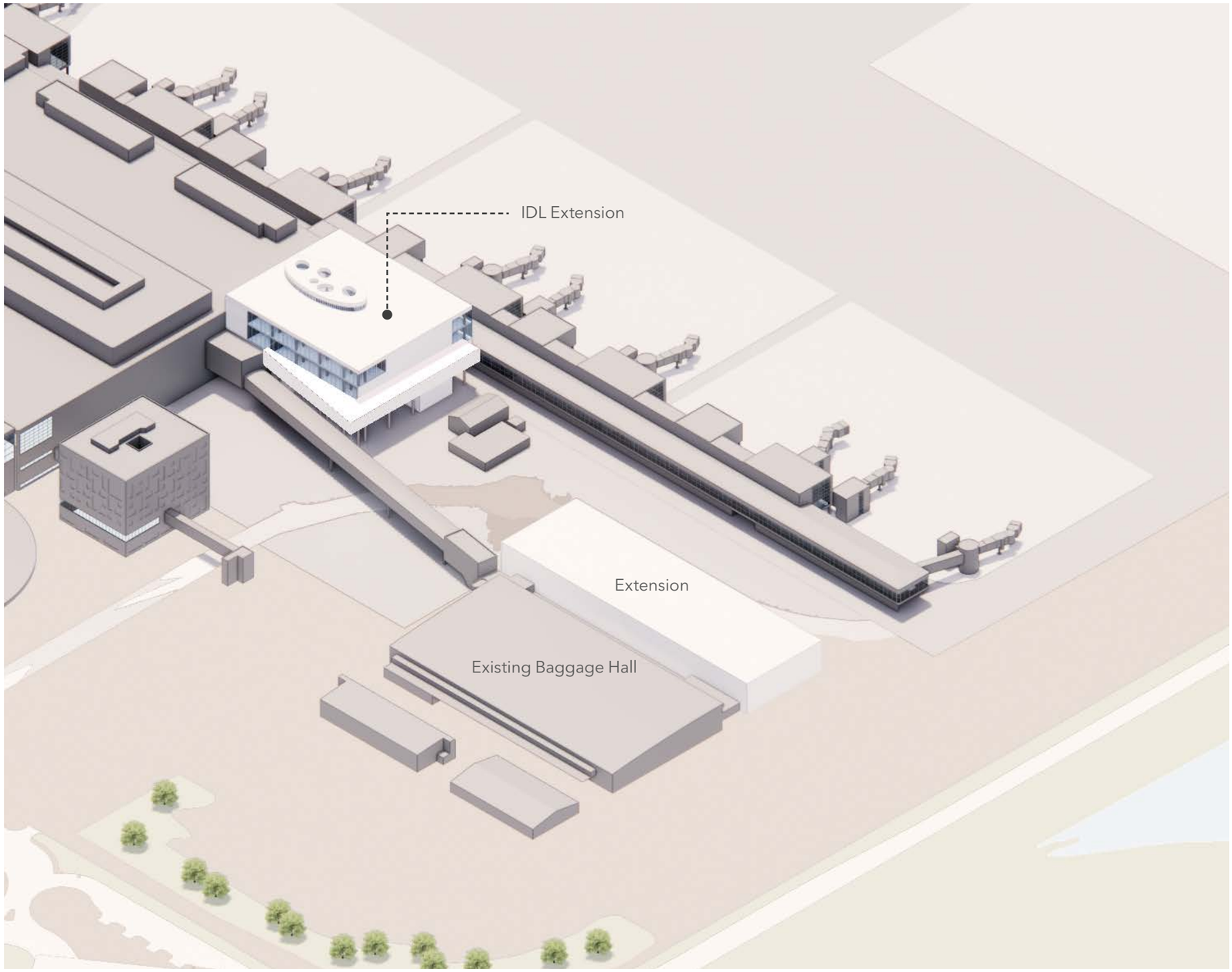


Figure 71. *Indicative Axonometric of NT Baggage Hall*

5.7.12 NORTH TERMINAL BORDERS

5.7.12.1 The increase in passenger numbers requires additional processing capacity in immigration. The indicative scope includes the expansion of the existing Border zone to the north into what is presently office space. The office space will be relocated to the void area at Level 10 (beneath the Level 20 IDL structure).

5.7.12.2 This additional space will provide for approximately 22 additional immigration counters which will be accessed from the existing queuing zone in the immigration hall.

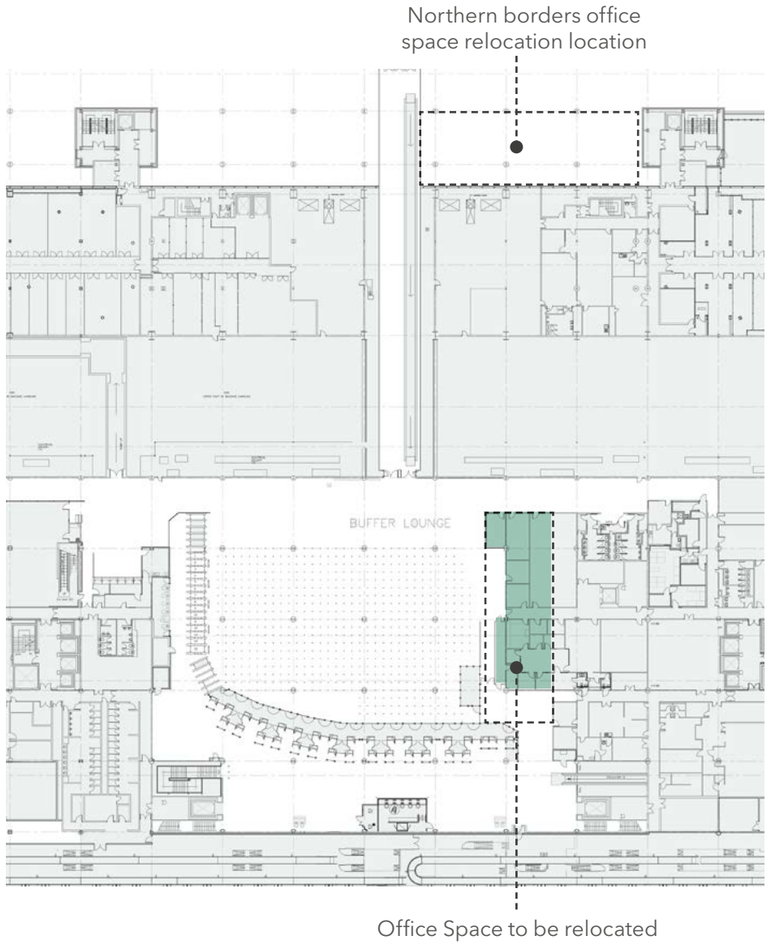


Figure 72. *NT Existing Borders Area*

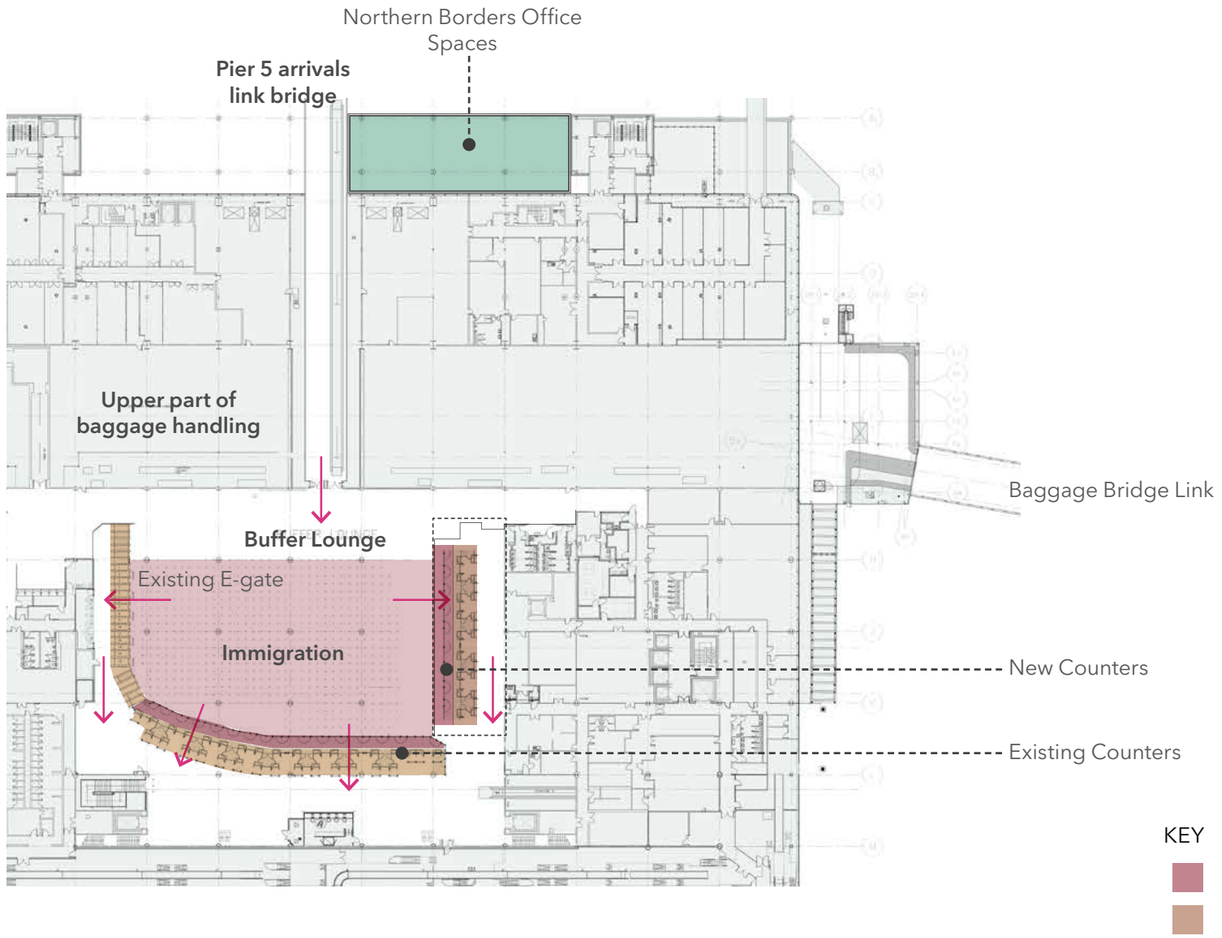


Figure 73. *NT Indicative Borders Alterations*

5.7.13 NORTH TERMINAL FORECOURT

5.7.13.1 The North Terminal Forecourt comprises North Terminal Approach, Furlong Way, Racecourse Way, Arrivals Road, Departures Road, Coach Road and Northway (Figure 74). These links provide access to the terminal frontage, drop-off areas, bus and coach stands, car rental facilities, short stay car park entrances and taxi ranks. Departures Road includes a restricted access link to the Upper Forecourt for premium drop-off (limited to certain airlines only). Long stay car parking at North Terminal is accessed via Longbridge Way as a separate access off North Terminal Roundabout.

5.7.13.2 The forecourts and approaches to both existing terminals will be enhanced, with routes providing access to the terminal frontage, car parks, hotels and pick-up and drop-off areas for different transport modes. The way in which access is managed for different modes may change in order to optimise the use of available capacity.

5.7.13.3 The detailed design of these works is to be determined at the next stage of design and will be integrated at this time with the more developed Surface Access works. Figure 75 provides an over view of the scope area of the works.

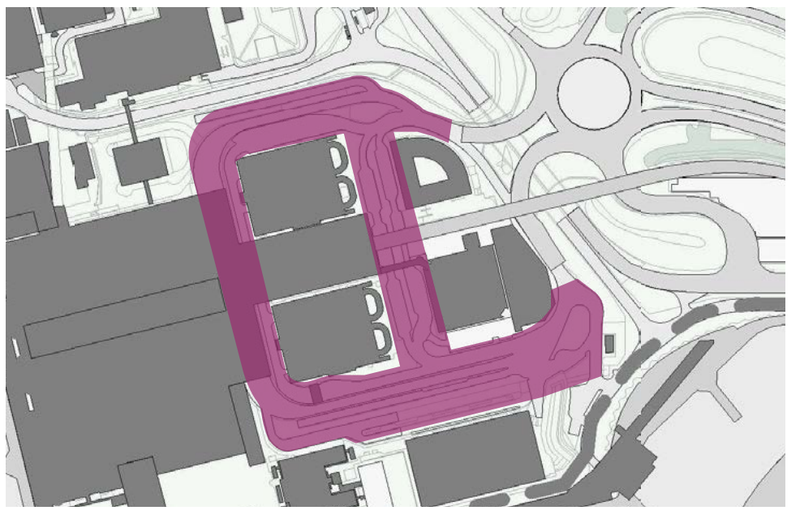


Figure 74. *NT Forecourt Site Context Plan*

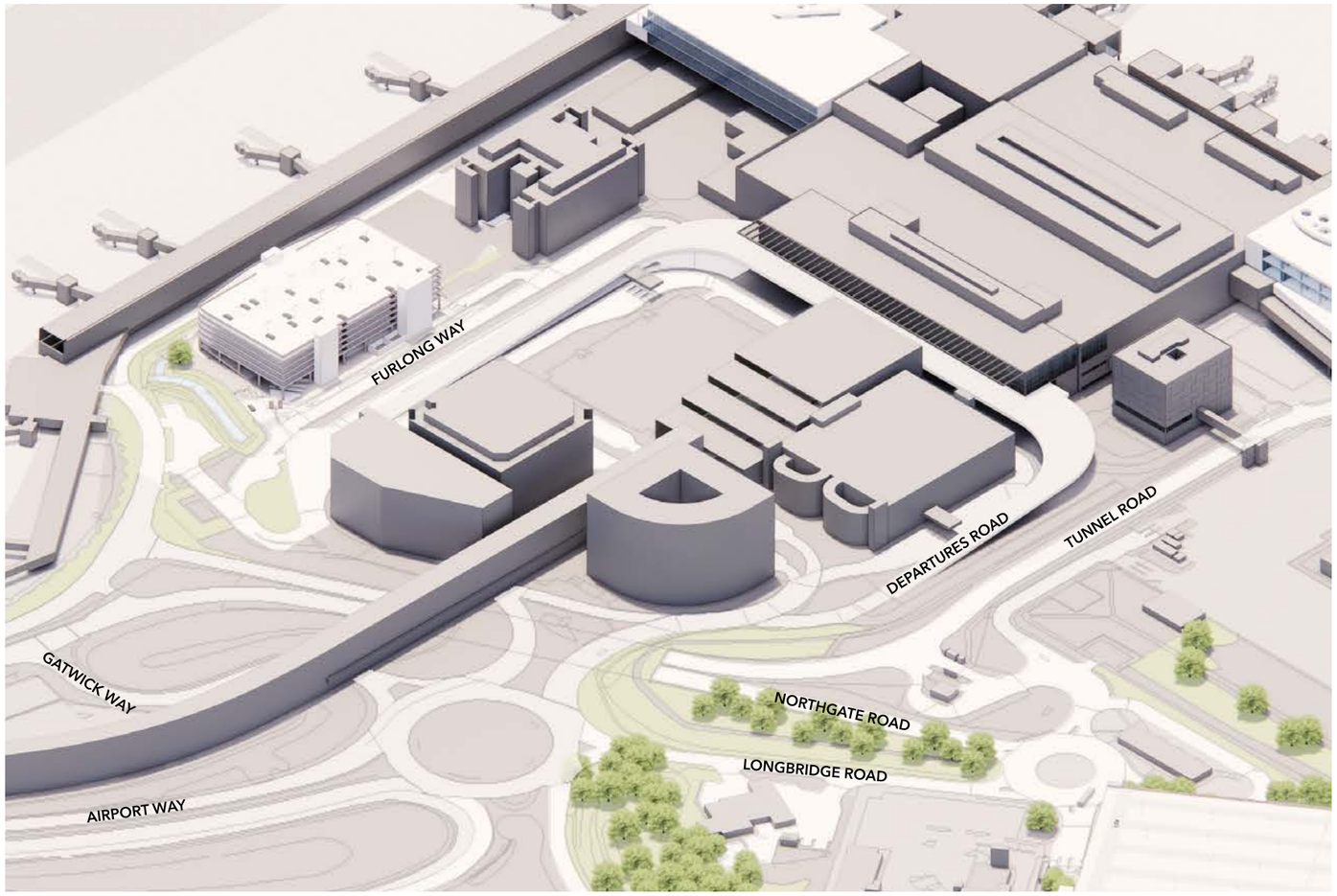


Figure 75. *NT Forecourt Overall Site Location*

N

5.7.14 CAR PARK J MULTI-STOREY CAR PARK

5.7.14.1 Additional parking is also indicative at existing Car Park J. This site is currently surface parking with bus stops. As it is a short distance to the lower level of the North Terminal, it is ideal for the provision of self-park passenger parking. Secure fencing separates the car park from the airfield is located along the southern boundary, with Pier 4 and its airside access road situated on the other side of the fence line.

5.7.14.2 The new multi-storey car park will add 890 parking spaces to the existing parking spaces. The building will be designed for car, motorcycle, and bicycle storage. The design will incorporate parking decks, ramps, stair cores, and lifts to make accessing all levels easy for visitors. Additionally, there will be ticketing areas to streamline the parking process and make it more convenient for visitors.

5.7.14.3 The lower level of the car park has been designed specifically for bus and coach pick-up and drop-off, with designated pedestrian routes to ensure safe and easy access for passengers and visitors. This design feature will ensure that the car park is well-integrated into the surrounding transport infrastructure, making it easy for visitors to access other parts of the terminal.

5.7.14.4 The multi-storey car park is to be an open deck structure to allow for natural ventilation. Stair and lift cores will also be provided to suit access and escape requirements.

5.7.14.5 The top deck will have lighting standards, CCTV and safety barriers. The provision of roof top photovoltaic (PV) panels will also be considered as part of the design development and wider energy strategies.

Figure 76. *Car Park J Multi-Storey Overall Site Location*

Figure 77. *Indicative Massing of Car Park J Multi-Storey*

5.7.15 CAR PARK Y MULTI-STOREY CAR PARK AND FLOOD STORAGE

5.7.15.1 Additional parking is required in order to meet demand generated by the expected increase in passenger numbers. To accommodate this, existing Car Park Y site (Shown on Figure 78) has been selected to provide this by being redeveloped from surface parking to a multi-storey car park. The site will be dually used for flood storage to mitigate stormwater runoff during storm events.

5.7.15.2 The existing surface car park is located to the north-east of the North Terminal and sits landside, in a prominent location adjacent the north terminal and associated hotels. It is accessed via Perimeter Road North and Longbridge Way on the south, with a roundabout providing access to the site. There are mature trees to the north east between the site and the River Mole and to the north-west between the site and the A23.

5.7.15.3 The indicative car park will provide an additional 3,035 spaces to that already provided at the site. It is expected that this car park will operate as a self-park site with a bus route circulating that provides transfers to the terminal.

Figure 78. *Car Park Y Multi-Storey Car Park and Flood Storage Site Location*

Figure 79. *Indicative Massing of Car Park Y Multi-Storey Car Park and Flood Storage*

5.7.15.4 An attenuation facility would be provided at Car Park Y the greater the amount of storage provided, the greater the benefit in terms of flood extent and depth. Provision of up to 32,000 cubic metres of capacity significantly reduces risk of flooding to the North Terminal. This will also assist with reducing the number and duration of emergency discharges from Pond D to the River Mole in the event of a flood.

5.7.15.5 The structure would fit within the footprint of and structurally support the proposed multi storey car park that would be built above the storage facility (as illustrated on Figure 82). The depth of floor would be at 49.5 metres AOD with an outlet box culvert of 3 metres by 1.2 metres. The inlet to culvert would be at 53.3 metres AOD connecting to the existing inlet structure of pond D. The excavation depth would be approximately 8-10 metres deep depending on the foundation solution.

5.7.15.6 The site would be backfilled and restored to a car park upon completion, and this would be at 57 metres AOD. The storage would be up to 125 by 75 metres with a footprint of 9,375 square metres.

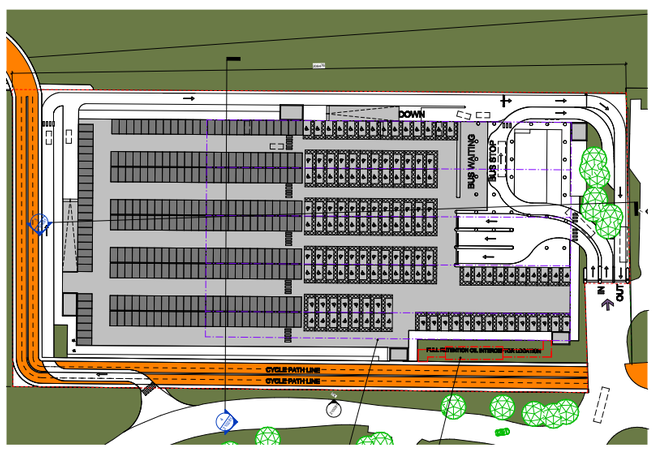


Figure 80. *Indicative Site Plan of Multi-Storey Car Park*

Figure 81. *Airfield View of Car Park Y Multi-Storey Car Park and Flood Storage*

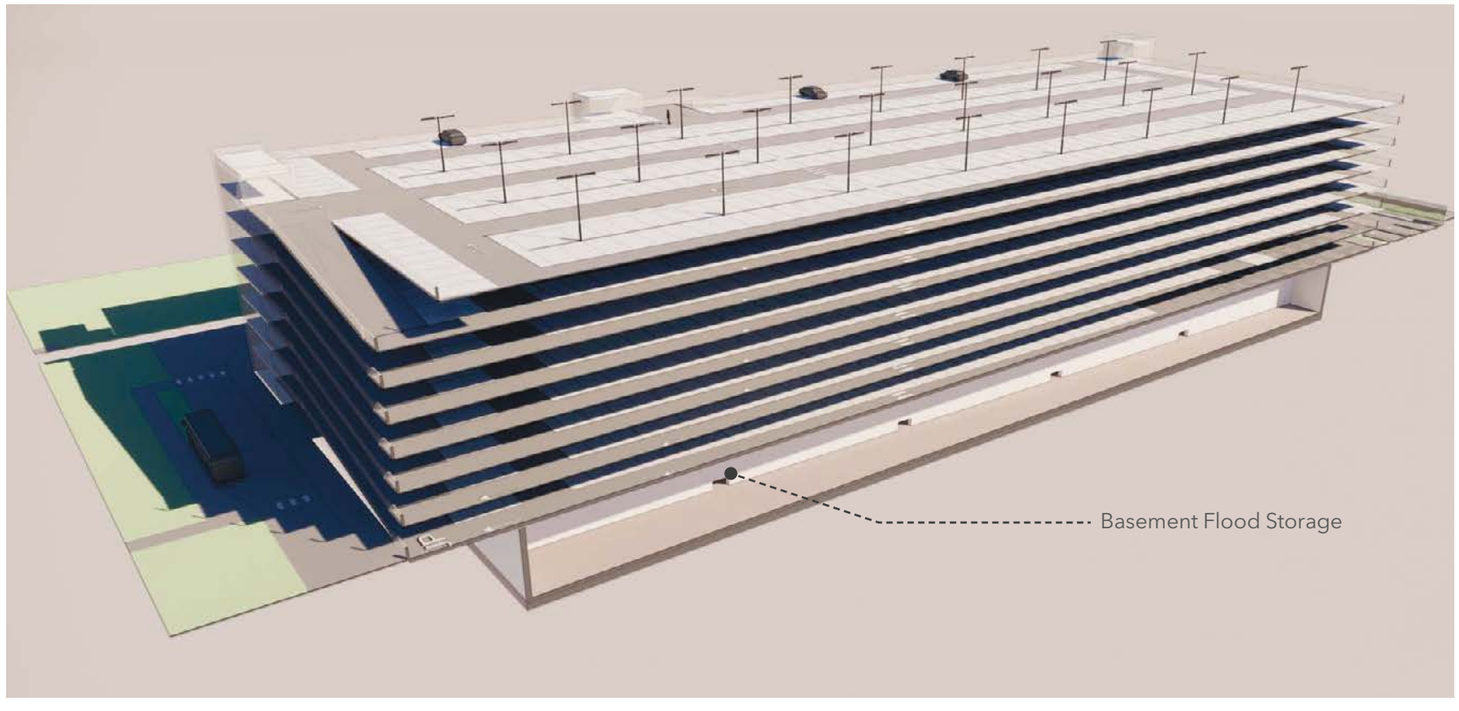


Figure 82. *Indicative Massing of Car Park Y Multi-Storey Car Park and Flood Storage*

5.7.16 BUILDING HEIGHTS

5.7.16.1 The North Terminal zone is densely development with many buildings over four storeys with the group of buildings making up the North Terminal being over 20 metres in height. Whilst there is localised planting and tree cover, the zone is urbanised in its nature and has a significant area of hard-standing apron areas to the North Terminal and its piers.

5.7.16.2 The indicatively proposed works to the North Terminal will not see an increase in the height of the terminal building itself. The most substantial change in height within this zone will be associated with the development of the two new car parking buildings. Their indicatively proposed heights will be consistent with the surrounding built form.

5.7.16.3 The northern extension to the North Terminal would be 3,300 square metres and result in additional floorspace of approximately 9,900 square metres over the three levels. The extension will be up to approximately 32.5 metres in height (above ground level).

5.7.16.4 The baggage hall extension will be over an area of approximately 6,552 square metres, spanning two storeys and reaching a maximum height of 12.5 metres above ground level.

5.7.16.5 Pier 7 would occupy an area of approximately 10.1 hectares, with a maximum building height of up to 18 metres.

5.7.16.6 Car Park J would have a footprint of approximately 1 hectare and would have a maximum building height of 27 metres. Car Park Y would have an approximate footprint of 1.9 hectares and a maximum height of 27 metres.

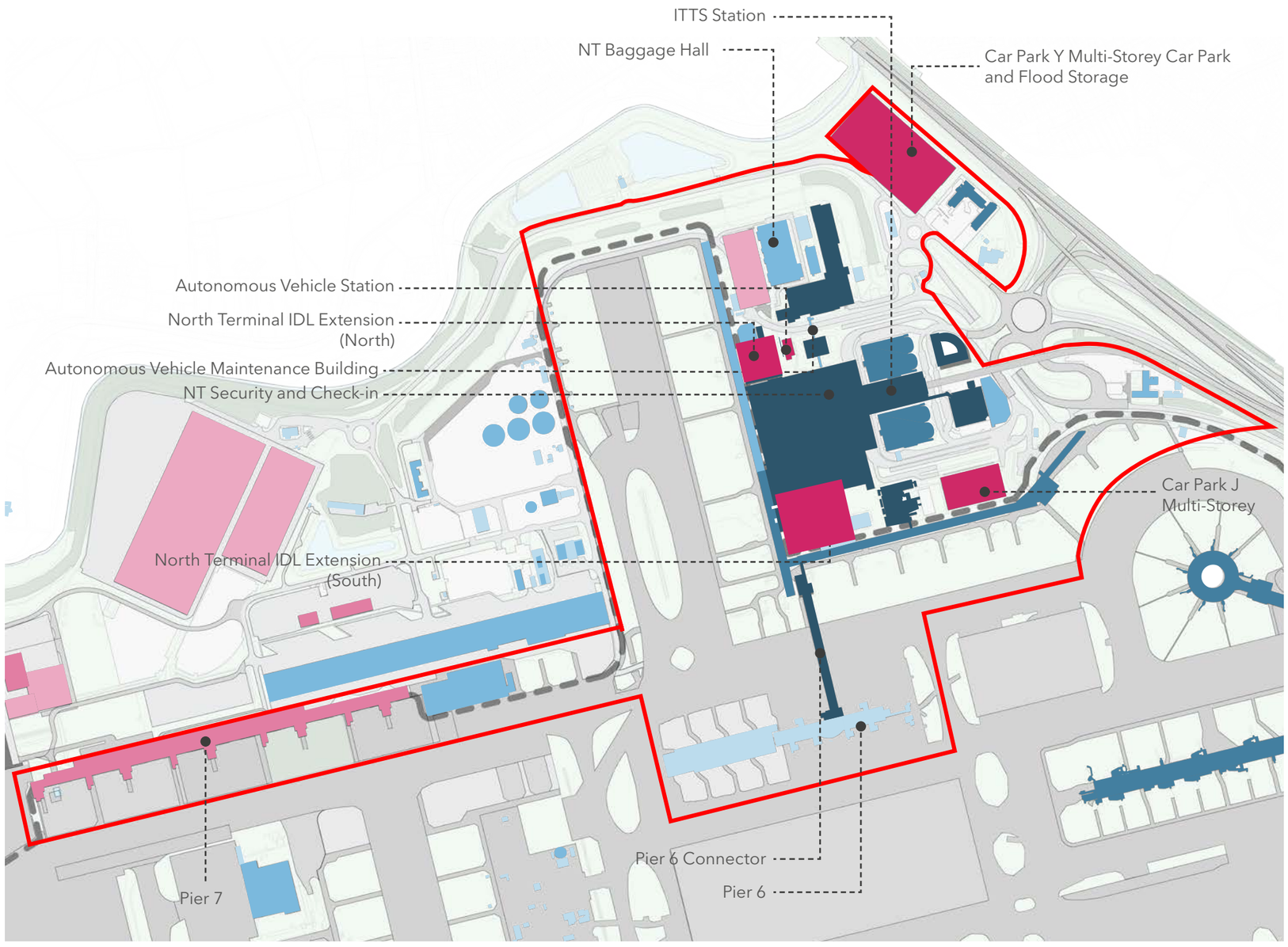


Figure 83. *North Terminal Zone Building Heights*

5.7.17 ACCESS

5.7.17.1 Most passengers arriving at the terminal will arrive on the ITTS (the Shuttle) from the South Terminal (and its mainline railway station) or one of the nearby car parks. Road access to the terminal is from the North Terminal roundabout which connects to the A23 and M23. The blue routes shown on Figure 84 illustrate the landside roads and the connections to and within the North Terminal zone.

5.7.17.2 Multi-Storey Car Park Y will be accessed from the roundabout connecting Perimeter Road North and Longbridge Roundabout. The existing access is shared with the adjacent hotel, and this access will be maintained.

5.7.17.3 To ensure that cars waiting to enter the car park do not cause congestion on the roundabout or hinder access to the hotel, suitable queuing lanes have been indicatively proposed. Furthermore, a bus stop will be installed to pick up passengers and visitors and transport them to the terminals.

5.7.17.4 Once at the terminal building, the main access into the terminal for passengers is at the arrivals or upper departures levels, with lifts and escalators serving those levels at the ITTS station and in the main terminal building.

5.7.17.5 The main terminal houses a number of security control search areas allowing passengers and staff access to the restricted or 'airside' parts of the and airfield. A new Autonomous vehicle route will take passengers from the main terminal to the new Pier 7.

5.7.17.6 Additionally, a cycle path runs along the northern and western edges of the site, with the building plan for this key active travel provision in place.

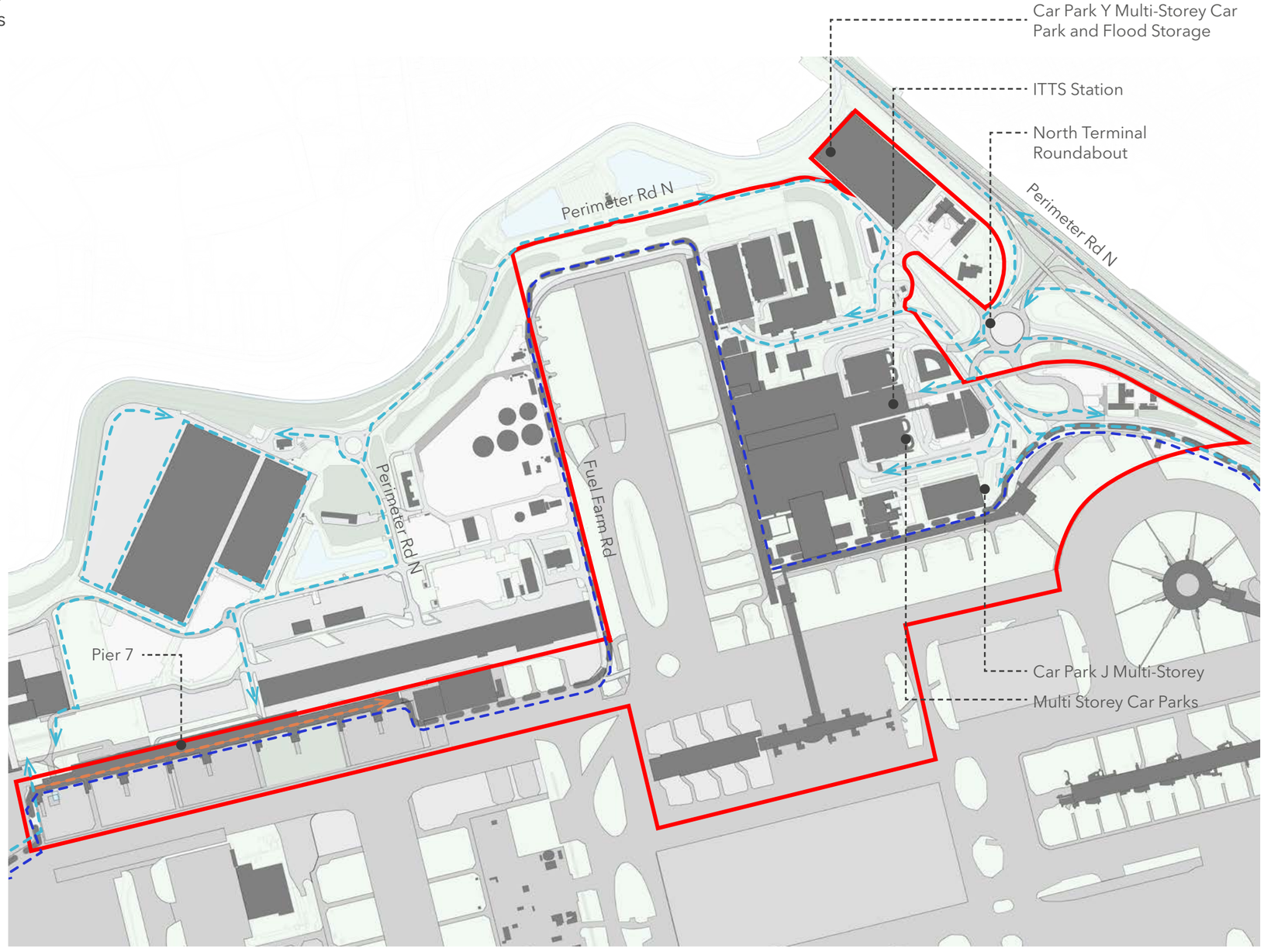


Figure 84. *North Terminal Zone Access Diagram*

5.8 SURFACE ACCESS CORRIDOR

5.8.1 ZONE CHARACTERISTICS

5.8.1.1 The Surface Access Corridor zone (Figure 85) contains the main arterial highways connections to the Gatwick Airport and local community that are located across the northern and eastern section of the masterplan. The zone has the Gatwick estate to the south and a mixture of farmland, recreational areas and residential areas to the north. The zone provides access to the South Terminal building and carparking area.

5.8.1.2 The zone is defined by three stretches of road with the most westerly extent containing Longbridge roundabout and the A23 London Road. This connects to both terminals and the link road Airport Way. Airport Way then feeds into the M23 from Southern Terminal Roundabout eastwards until it reaches Junction 9 of the M23. There are also areas of pedestrian walkways and grassland with some dense tree areas within the grassland at the side of the main roads (Figures 87 & 88).

5.8.1.3 The zone has views over Riverside Garden Park. The Gatwick Police Station is located near the southern border of the Surface Access Corridor. However, there are no significant buildings in the zone itself.

5.8.1.4 This zone's main function is to provide access to the north and south terminal buildings, to the commercial areas and to other assets including car park facilities. The key existing access points in and out of the from the strategic road network are via North Terminal Roundabout and South Terminal Roundabout with onward connectivity to surrounding areas via the M23 and local roads.

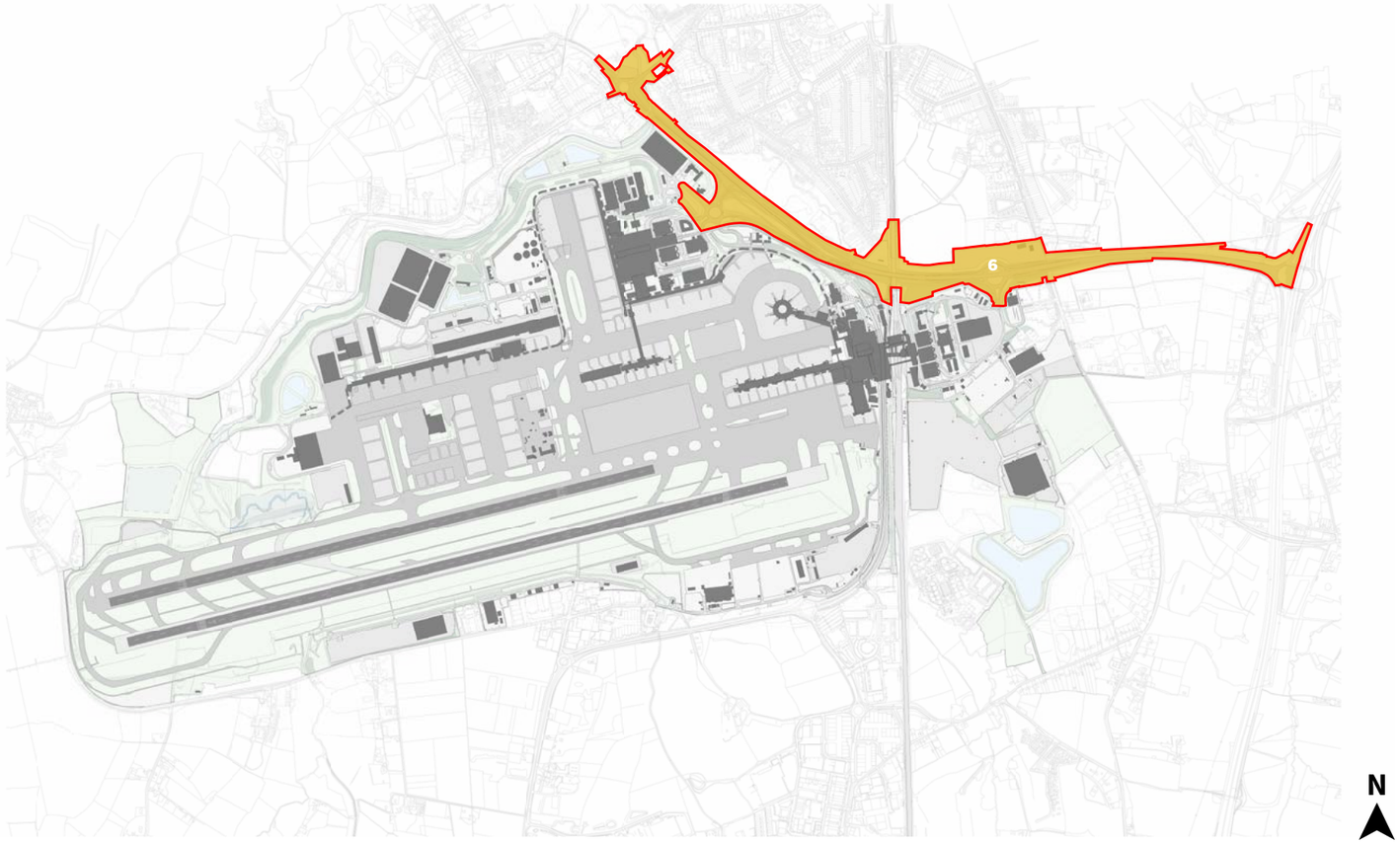


Figure 85. *Surface Access Corridor Zone Characteristics*

Figure 86. *Perimeter Road North view towards NT Hotels*

Figure 87. *A23 Footway Looking North-Wast*

Figure 88. *A23 Footway Looking South-East*

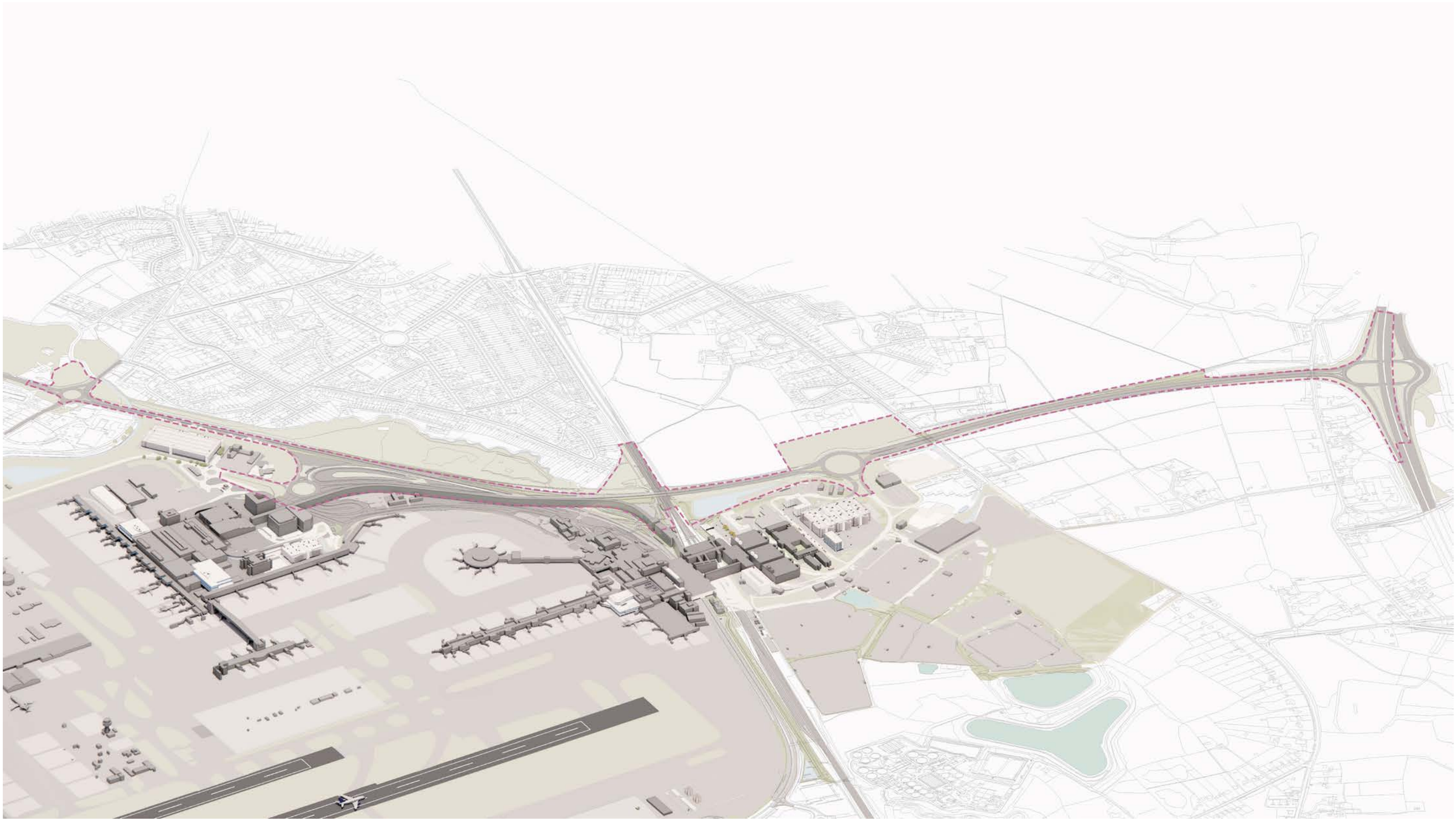


Figure 89. *Illustrative View of Surface Access Corridor Zone Location*

5.8.2 ZONE CONSTRAINTS

5.8.2.1 As shown on Figure 90. There are two areas of open space adjacent to the highway corridor. Riverside Garden Park borders the northern length of the A23. Church Meadow is situated to the north of the Longbridge Roundabout.

5.8.2.2 The highway corridor and open space area both include associated planting including areas of mature and semi mature trees.

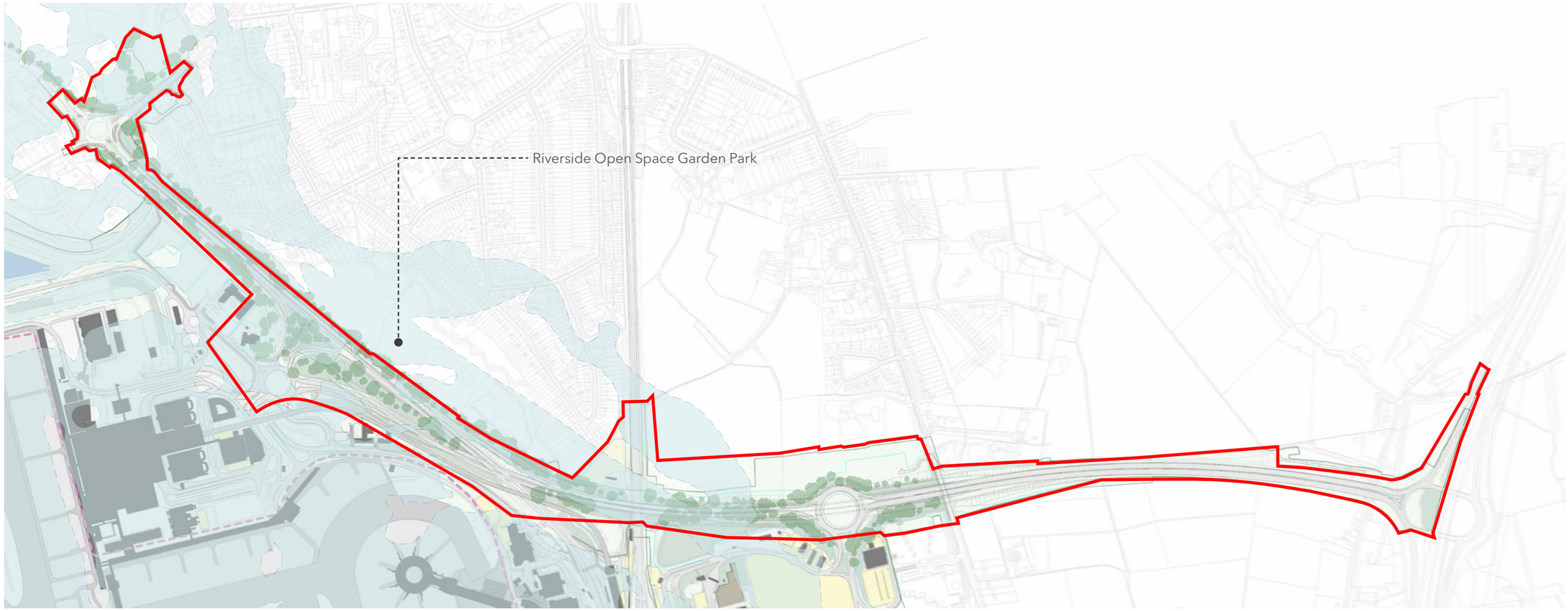


Figure 90. *Existing Site Constraints - Surface Access Corridor*

5.8.3 ZONE PROJECTS AND LAND USE

5.8.3.1 The proposed works within this zone are surface access improvements which are consistent with the existing transport land use (Figure 91). Replacement areas of open space will also be provided at either end the zone to compensate for the loss generated by the highways works. Overall, the land use will see an intensification of existing uses rather than new uses being introduced to the zone.

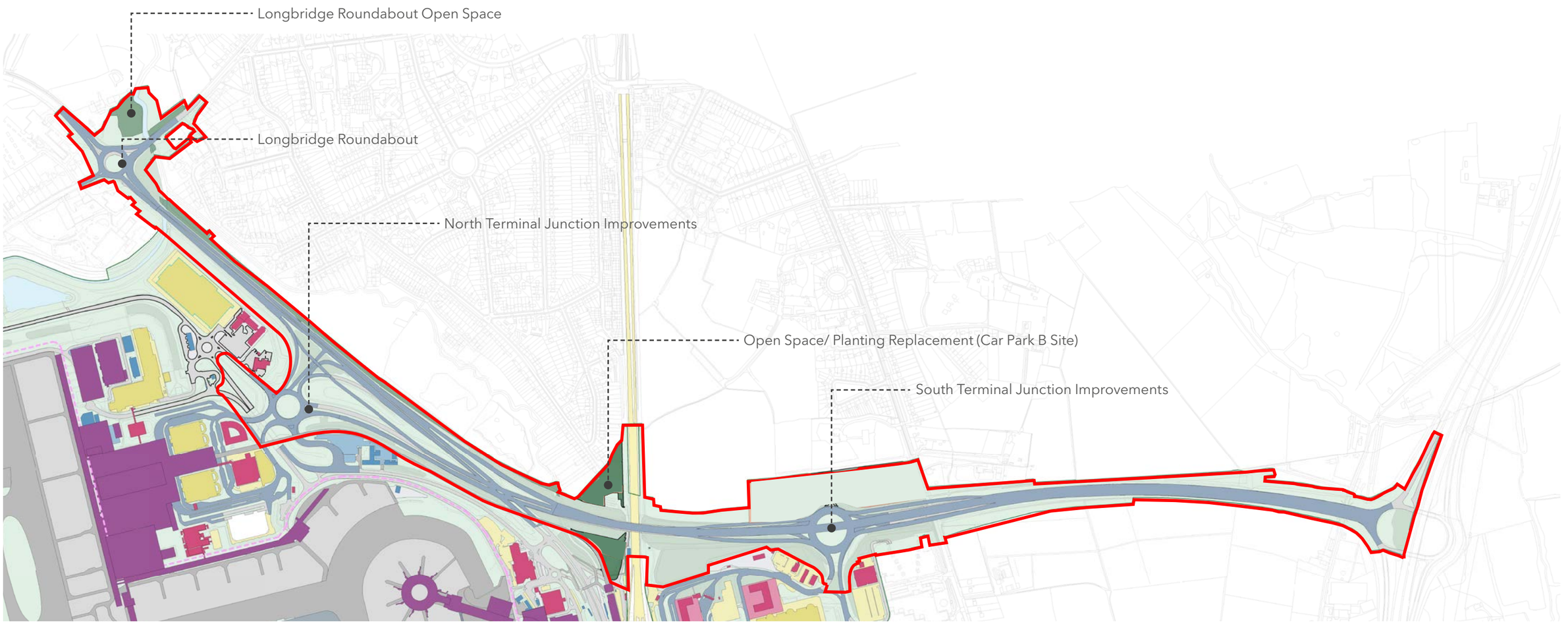


Figure 91. *Zone Projects & Land Use - Surface Access Corridor*

5.8.4 ZONE WORKS

5.8.4.1 Improvements are proposed for the highways and active travel routes that serve both the South Terminal and North Terminal roundabouts. The designs and details have been subject to road traffic assessment and detailed engagement with highway authorities, including National Highways. The proposals for surface access reflect refinements made following consultation responses and engagement with National Highways and local highway authorities regarding junction layouts and active travel routes for pedestrians and cyclists.

5.8.4.2 The project also includes a range of active travel infrastructure proposals including upgrades to existing active travel infrastructure in the vicinity of the indicatively proposed junction modifications and the provision of new active travel infrastructure links and highway crossings to improve connectivity and safety for pedestrians and cyclists.

5.8.4.3 In summary, the works indicatively proposed in this zone are:

a. Longbridge Roundabout.
b. Longbridge Roundabout Replacement Open Space (Church Meadows).
c. North Terminal Junction Improvements.
d. South Terminal Junction Improvements.
e. Replacement Open Space (Car Park B Site).

Figure 92. *Zone Works Diagram - Surface Access Corridor*


KEY
Meadow Grassland
Amenity Grass
Woodland
Ground Cover
Reinstated Habitat
Replacement Open Space
Wet Grassland
Individual Tree
Replacement Open Space (Car Park B Site)
South Terminal Junction Improvements

5.8.5 LONGBRIDGE ROUNDABOUT

5.8.5.1 Works are proposed to the Longbridge Roundabout, including alterations to the existing layout. Options have been considered in relation to operational capacity, compliance with design standards and impact on surrounding land and property.

5.8.5.2 It is proposed to substantially improve the roundabout and provide increased lane widths on the circulatory carriageway to better accommodate vehicle turning movements. (Figure 93) The current lanes create a capacity restriction due to goods vehicles needing to straddle two lanes for certain manoeuvres. Enhanced active travel infrastructure would be provided in the vicinity of the roundabout comprising:

- Significant sections of segregated path for pedestrians and cyclists and signalised crossings allowing enhanced access across all arms of the roundabout.
- Provision of a shared use path between the roundabout and Riverside Garden Park including the provision of a new proposed shared pedestrian and cyclist ramp to the south-east of A23 London Road River Mole bridge to provide enhanced connectivity to and from the park for pedestrians and cyclists.
- Cyclist ramp on A23 Brighton Road eastbound at the termination point of the shared use path to enable cyclists to rejoin the road carriageway.

5.8.5.3 The proposed new roundabout would have a slightly larger diameter and would extend further west and north to accommodate the wider circulating lanes, enhanced active travel infrastructure and improved capacity on exit and entry lanes, particularly for the A23 Brighton Road arm to and from Horley. The existing segregated left turn lane from the A23 Brighton Road southbound into the A23 London Road eastbound would be widened along with the associated structures supporting this section of the highway and would incorporate a shared use path heading east from the roundabout.

5.8.5.4 A third lane northbound would be introduced on the A23 London Road between the North Terminal Flyover Link merge and Longbridge roundabout. The A23 Brighton Road bridge over the River Mole would be replaced with a widened bridge to accommodate a widened highway and active travel infrastructure at this location.

Figure 93. *Longbridge Roundabout Indicative Plan*

Figure 94. *Indicative Proposed Longbridge Roundabout Highways Layout – Indicative Massing of Project*

Figure 95. *Existing Longbridge Roundabout Layout*

5.8.5.5 Sections of segregated path for pedestrians and cyclists, with signalised crossings, will be provided to enhance access at all arms of the roundabout. A shared use path will also be constructed between the roundabout and Riverside Garden Park including a new shared pedestrian and cyclist ramp to the south-east of the A23 London Road River Mole bridge to provide enhanced connectivity to and from the park for pedestrians and cyclists.

5.8.5.6 The land to the north of the Longbridge Roundabout comprises rough grassland surrounded by trees and hedgerows. Church Meadows and Church Road Burial Ground lie to the east of the River Mole.

5.8.5.7 The indicative upgrade of the Longbridge Roundabout will impact existing areas of woodland and highway planting.

5.8.5.8 The Order Limits have been modified following the Autumn2021 consultation which enables retention of an area of vegetation to the east of the roundabout and south west of the River Mole.

5.8.5.9 Approximately 0.5 hectares of land to the north east of Longbridge Roundabout would be used for ecological mitigation. This would comprise landscape and ecological mitigation planting and a pedestrian footbridge of approximately 45 metres across the River Mole. An indicative proposal is shown on Figure 97. The land on the west bank of the River Mole would offset the loss of recreational public open space in Riverside Garden Park and Church Meadows.

Figure 96. *Longbridge Roundabout Open Space / Ecological Mitigation Site Context Plan*

Figure 97. *Longbridge Roundabout Open Space / Ecological Mitigation Indicative Plan*

5.8.6 NORTH TERMINAL JUNCTION IMPROVEMENTS

5.8.6.1 The North Terminal Roundabout is the entry point to the North Terminal and local access roads, including the northern and east perimeter roads (Figure 98). The existing layout consists of a circular five-arm at-grade roundabout to the north east of the North Terminal and south west of the A23 London Road. There is currently no direct entry to the roundabout southbound from Horley and no direct exit from the roundabout on to the A23 London Road southbound towards Crawley.

5.8.6.2 Local improvements are proposed in the absence of the Project (see **ES Chapter 4: Existing Site and Operation** (Doc Ref. 5.1). These improvements would include local widening on the junction entry/exit lanes for the North Terminal Roundabout, together with signalisation of the roundabout and provision of enhanced signage.

5.8.6.3 A partial grade-separated junction design is proposed. The size of the existing roundabout would be increased to a larger diameter to create extra capacity and changes made to entry and exit routes (Figure 99). As part of this solution, an elevated flyover (North Terminal Flyover Link) would be built to carry traffic between Airport Way (from South Terminal and the M23) and the A23 London Road towards Horley. This would provide extra capacity for movements to and from Gatwick Ariport and would separate and non- traffic, reducing conflict in peak periods, thereby reducing congestion. Additional improvements would be made to Gatwick Way to accommodate an increase in traffic flow towards Northgate Road.

5.8.6.4 The exit from the roundabout eastbound towards Airport Way would be replaced by a connection via a new signalised junction with the A23 London Road (A23 London Road / North Terminal Link Signal-Controlled Junction) and an enhanced free-flow A23 London Road Southbound Diverge to Airport Way Eastbound. This would remove the need for a merge between traffic leaving the southbound A23 heading towards the M23 and the eastbound Airport Way.

5.8.6.5 The new junction on the A23 London Road would also facilitate a direct movement from Gatwick to the southbound A23 towards Crawley, removing a current constraint. It is also proposed to introduce a pedestrian crossing at this junction linking the existing footway along the north side of the A23, which would be improved, to Longbridge Way. Northbound traffic from the roundabout heading towards Horley on the A23 London Road would also use this signalized junction with the proposed North Terminal Link replacing the existing arm from the roundabout. Northbound traffic on A23 London Road heading towards North Terminal Roundabout would utilise the proposed replacement A23 London Road Northbound Left-in Diverge to North Terminal Roundabout.

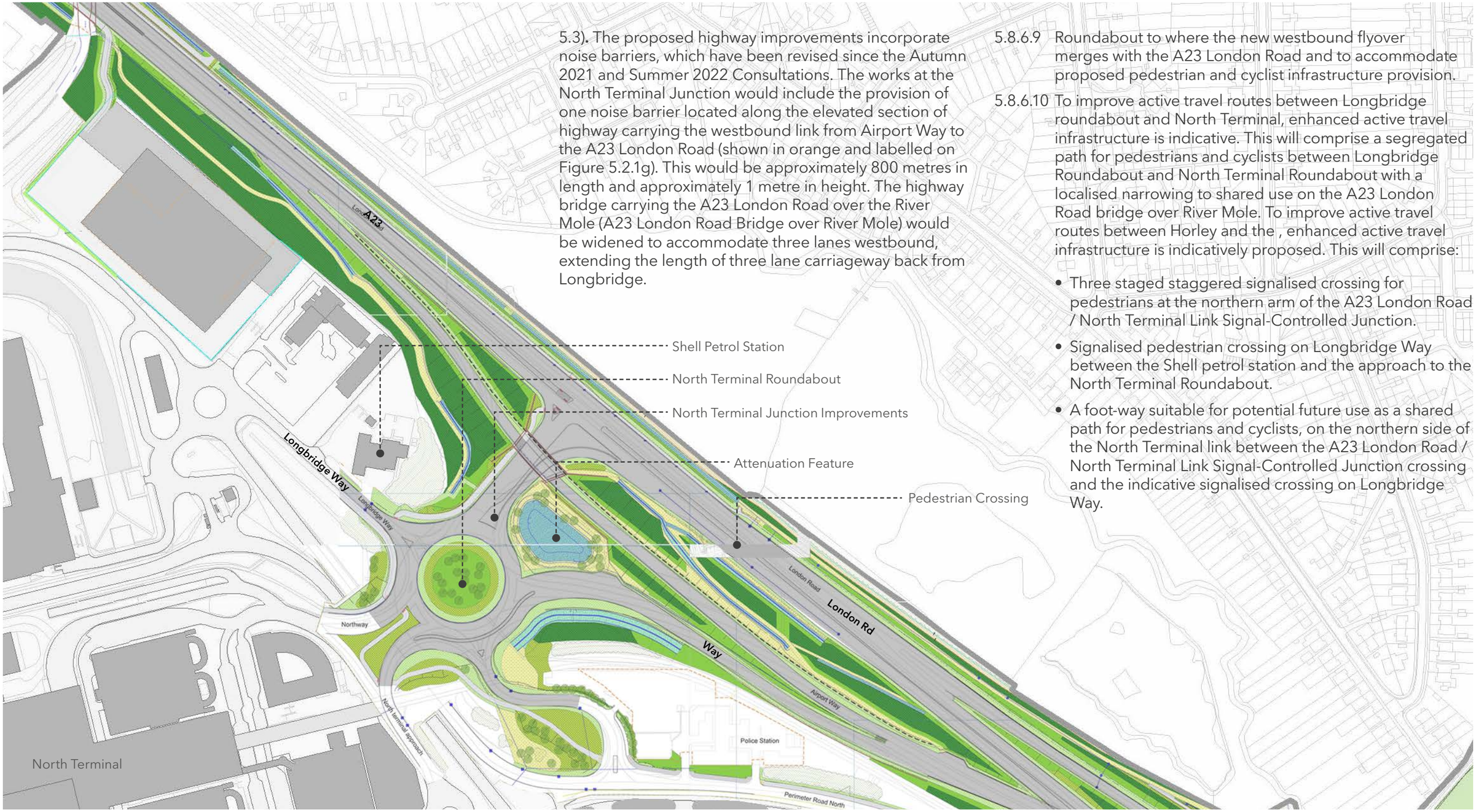
5.8.6.6 The road surface level of the elevated link (North Terminal Flyover Link) from Airport Way towards Horley would sit approximately 8 metres above ground level to provide the required clearances as stipulated by National Highways' safety and design standards.

5.8.6.7 The flyover structure (North Terminal Flyover Bridge) is anticipated to require one span to cross the at-grade carriageways of North Terminal Link and A23 London Road Northbound Left-in Diverge to North Terminal Roundabout and the bridge is expected to comprise a typical steel beam superstructure with a concrete slab deck on concrete abutments and piers, with piled foundations. The structure span would be approximately 45 meters long. Retaining walls would be required to separate adjacent links and other infrastructure assets at different levels or gradients. The bund behind the Premier Inn and petrol station on Longbridge Way would be altered to accommodate the earthworks that would support the flyover.

5.8.6.8 Way including the Airport Way Rail Bridge would be widened to accommodate a third lane westbound over the railway line, which would require alterations to the embankment on the south side of Airport Way to the east and west of the railway. National Cycle Route 21 currently passes beneath Airport Way in close proximity to the embankment works and this section would need to be temporarily closed during construction to ensure the safety of users. A temporary alternative route would be provided so that access is maintained throughout construction (as shown in Annex 1, Figure A in Appendix 19.8.2 Public Rights of Way Management Strategy (Doc Ref

Figure 98. *Existing North Terminal Roundabout Layout*

Figure 99. *Indicative Proposed North Terminal Roundabout Highways Layout – Indicative Massing of Project*



5.3). The proposed highway improvements incorporate noise barriers, which have been revised since the Autumn 2021 and Summer 2022 Consultations. The works at the North Terminal Junction would include the provision of one noise barrier located along the elevated section of highway carrying the westbound link from Airport Way to the A23 London Road (shown in orange and labelled on Figure 5.2.1g). This would be approximately 800 metres in length and approximately 1 metre in height. The highway bridge carrying the A23 London Road over the River Mole (A23 London Road Bridge over River Mole) would be widened to accommodate three lanes westbound, extending the length of three lane carriageway back from Longbridge.

5.8.6.9 Roundabout to where the new westbound flyover merges with the A23 London Road and to accommodate proposed pedestrian and cyclist infrastructure provision.

5.8.6.10 To improve active travel routes between Longbridge roundabout and North Terminal, enhanced active travel infrastructure is indicative. This will comprise a segregated path for pedestrians and cyclists between Longbridge Roundabout and North Terminal Roundabout with a localised narrowing to shared use on the A23 London Road bridge over River Mole. To improve active travel routes between Horley and the , enhanced active travel infrastructure is indicatively proposed. This will comprise:

- Three staged staggered signalised crossing for pedestrians at the northern arm of the A23 London Road / North Terminal Link Signal-Controlled Junction.
- Signalised pedestrian crossing on Longbridge Way between the Shell petrol station and the approach to the North Terminal Roundabout.
- A foot-way suitable for potential future use as a shared path for pedestrians and cyclists, on the northern side of the North Terminal link between the A23 London Road / North Terminal Link Signal-Controlled Junction crossing and the indicative signalised crossing on Longbridge Way.

Figure 100. *North Terminal Junction Improvements Indicative Plan*

5.8.7 SOUTH TERMINAL JUNCTION IMPROVEMENTS

5.8.7.1 The South Terminal Roundabout, M23 Junction 9a (also known as the Welcome Roundabout) is the sole entry point into the South Terminal area and for local access roads, including the South Terminal forecourt, long stay car parks and commercial premises (shown in Figure 101). It is served by the M23 Spur to the east (leading from the M23 Junction 9) and Airport Way from the west (leading from North Terminal roundabout). The majority of Gatwick Airport traffic accesses the from the M23 and traffic for both North Terminal and South Terminal must pass through this roundabout.

5.8.7.2 The westbound M23 Spur was upgraded as part of the National Highways M23 Junctions 8 to 10 Smart Motorway Project, completed in Summer 2020. As part of that work, the hard shoulder of the westbound carriageway became a permanent running lane, providing a total of three lanes approaching Gatwick Airport. The eastbound M23 Spur was not widened at the time of the westbound works. Further local improvements to South Terminal Roundabout, involving signalisation and minor widening of entries/exits, are proposed in the absence of the Project (these form part of the future baseline and are outlined in Section 4.4, Chapter 4: Existing Site and Operation(Doc Ref. 5.1).

5.8.7.3 The South Terminal roundabout is proposed to be fully signalized (Figure 102). The M23 Spur would be reclassified as an A road (to be known as Gatwick Spur). The main carriageway would be raised, through the provision of a flyover bridge (South Terminal Flyover Bridge) above the existing roundabout, with on and off slip roads in both directions linking the flyover to the roundabout.

5.8.7.4 The elevated Gatwick Spur/ Way would be approximately 8 metres above the existing ground level at its midpoint after allowing for deck construction and surfacing. The length of the flyover structure would be approximately 130 metres. Earthworks would support the approach to the bridge and reinforced earthwalls or retaining walls would be required between the main carriageway and slip roads.

5.8.7.5 The flyover structure will be approximately 130 metres in length. Earthworks will be required to support the approach to the bridge with reinforced earth-walls or retaining walls required between the main carriageway and slip roads.

5.8.7.6 The improvements also include landscape planting proposals including native woodland, scrub, ground-cover and grassland habitats.

Figure 101. *Existing South Terminal Roundabout*

Figure 102. *Indicative South Terminal Roundabout Highways Layout – Indicative Massing of Project*

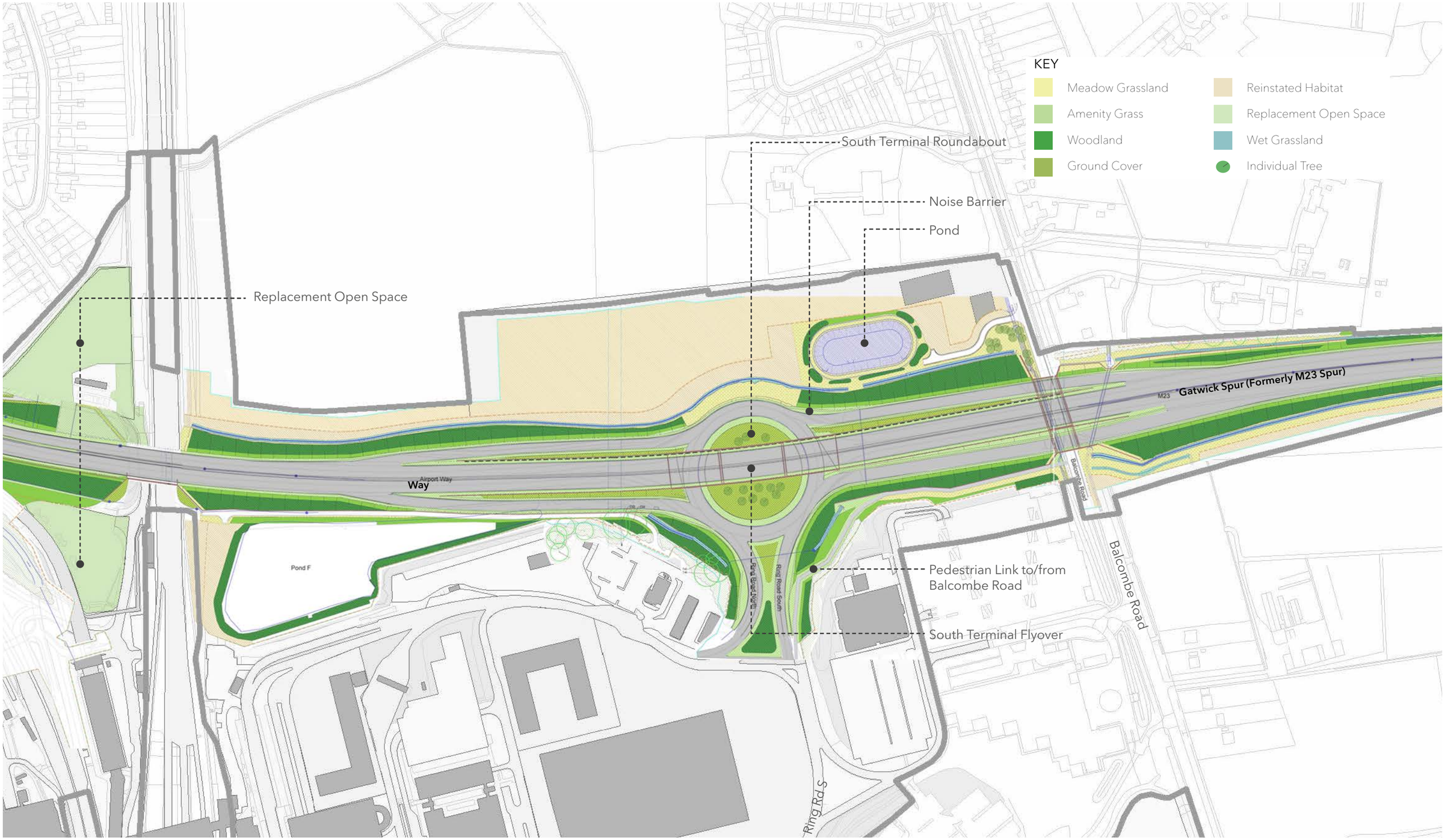


Figure 103. *South Terminal Junction Improvements Indicative Plan*

5.8.8 OPEN SPACE / PLANTING REPLACEMENT

5.8.8.1 Existing Car Park B, which is used for staff parking, is divided between two areas of hard stand either side of the A23, immediately west of the railway and to the east of Riverside Garden Park and Gatwick Stream.

5.8.8.2 New publicly accessible open space is indicatively proposed that links the two areas as shown on Figure 104. Approximately 0.79 hectares of land immediately to the west of the London to Brighton railway line, north of the current A23 and approximately 0.64 hectares of land south of the current A23. This area is currently used as staff car parking and is proposed to provide replacement open space for the impacts at Riverside Garden Park.

5.8.8.3 The northern land parcel will include a mosaic of woodland habitats and grassy glades to provide ecological benefit and replacement for vegetation loss in Riverside Garden Park. The area will be linked by a footpath to Riverside Garden Park to ensure connectivity between the existing and new public open spaces. (Shown on Figure 105)

5.8.8.4 The southern parcel will include planting that extend beneath the ITTS to enable the space to link with the green corridor of the Gatwick Stream and maximise the benefits to the urban character and ecology. Replacement of car parking with diverse green infrastructure will provide a significant amenity and ecological benefit.

5.8.8.5 A pedestrian link from Car Park B North Side to Riverside Canal is required as part of the replacement of the public open space affected by the North Terminal junction works to ensure that it is contiguous to the existing area of the park.

5.8.8.6 A new public footpath will link from the existing public right of way beside the River Mole, through the new sequence of public open spaces to the Charlwood Road. The area will incorporate a footbridge over the inlet to the new flood compensation area (FCA).

5.8.8.7 Seating areas set within native trees and shrubs will provide a green space on the edge of Gatwick Airport and in close proximity to South Terminal for the local community and people working at and visiting Gatwick Airport .

Figure 104. *Open Space / Planting Replacement Overall Site Location*

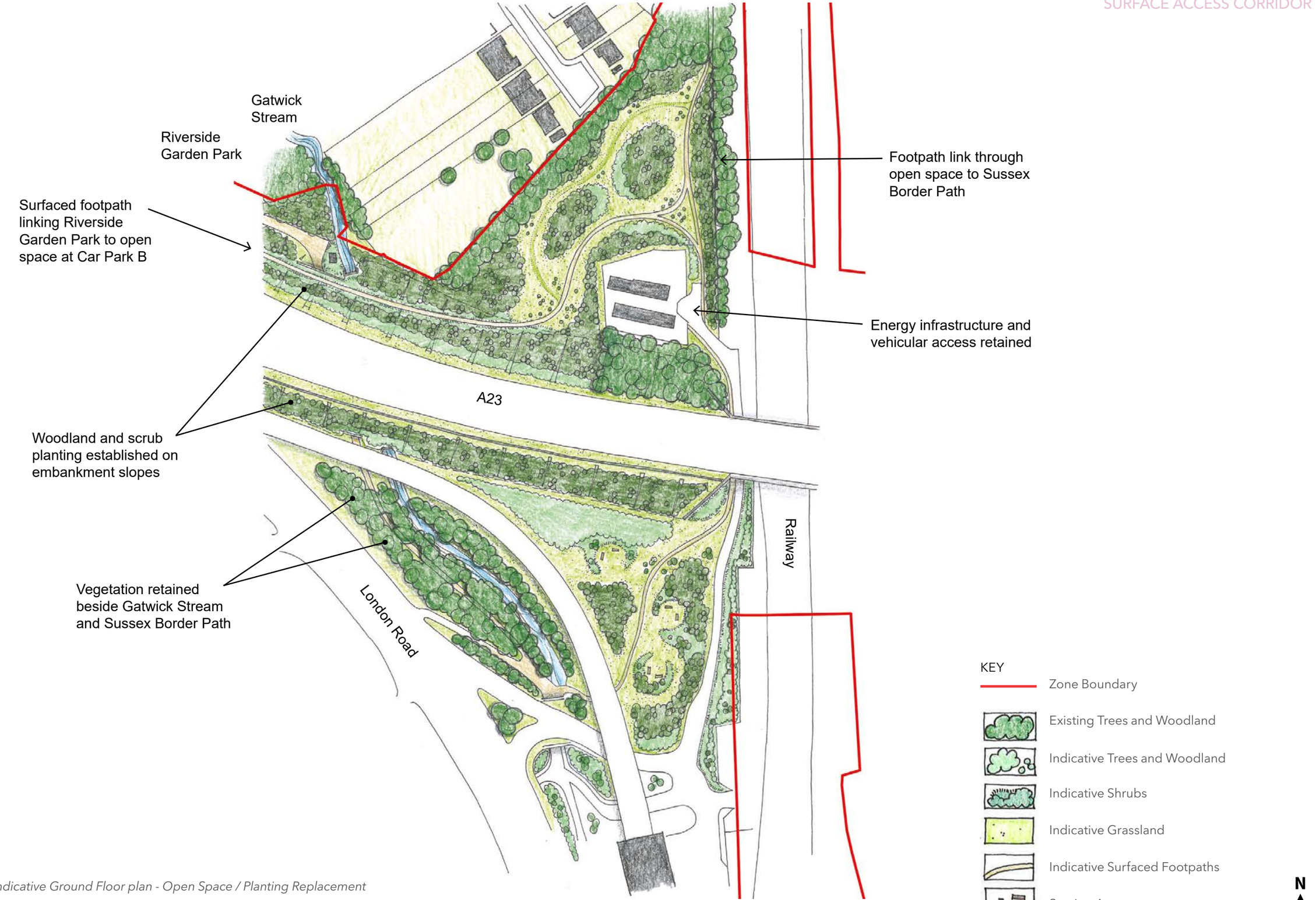


Figure 105. *Indicative Ground Floor plan - Open Space / Planting Replacement*

5.8.9 KEY BUILDINGS & HEIGHTS

5.8.9.1 There are no buildings within this zone and therefore no building heights available. The zone is, however, located near the terminal buildings where the building heights range from 0-5 metres to 20+ metres.

KEY

EXISTING BUILDINGS

- 0 - 5 metres
- 5 -10 metres
- 10 - 20 metres
- 20+ metres

INDICATIVE BUILDINGS

- 0 - 5 metres
- 5 -10 metres
- 10 - 20 metres
- 20+ metres

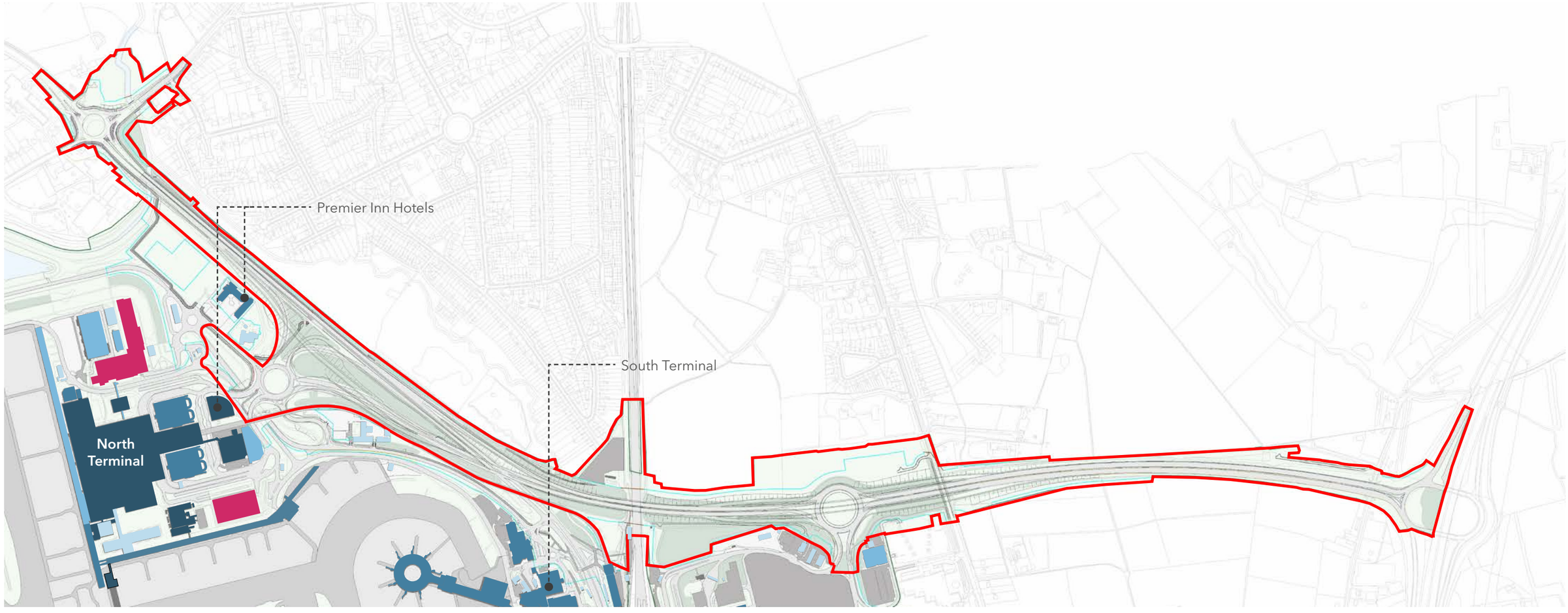


Figure 106. *Building Heights - Surface Access Corridor*

5.8.10 ACCESS

5.8.10.1 As previously stated, this zone's main function is to provide access to the North and South Terminal buildings, to the commercial areas and to other assets including car park facilities. The key existing access points in and out of Gatwick to from the strategic road network are via North Terminal Roundabout and South Terminal Roundabout with onward connectivity to surrounding areas via the M23 and local roads.

5.8.10.2 The highway improvement elements of the project extend from the M23 Junction 9 to Gatwick South Terminal Roundabout, then via Way to Gatwick North Terminal Roundabout and then via slip road connection to A23 London Road to the Longbridge Roundabout junction. At Longbridge roundabout the project includes a limited extent of the roundabout approach roads (A23 London Road, A217, Povey Cross Road and A23 Brighton Road). The project also includes modifications to additional local road and road connections.

5.8.10.3 The indicatively proposed grade separation measures at North and South Terminal roundabouts, combined with the other junction improvement and link upgrades are to provide increased highway capacity to mitigate the traffic growth forecast in the area. The proposed measures are also anticipated to improve the safety and resilience of the highway network in the vicinity of Gatwick Airport. The projects design and construction methodology seeks to minimise disruption to road users during construction and to minimise the impact to key areas of ecological, landscape or recreational value in the vicinity of the works.

5.8.10.4 The scheme includes a range of active travel infrastructure proposals including upgrades to existing active travel infrastructure in the vicinity of the proposed junction modifications and the provision of new active travel infrastructure links and highway crossings to improve connectivity and safety for pedestrians and cyclists.

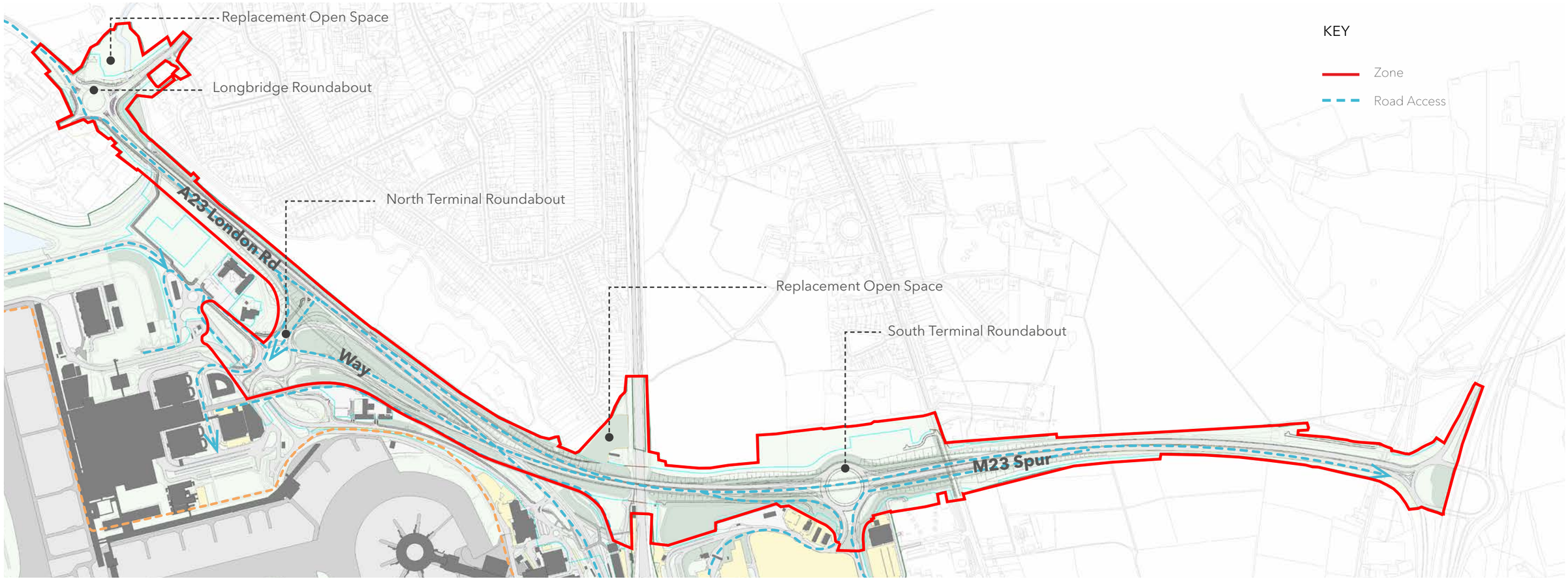


Figure 107. *Access Zone- Surface Access Corridor*

GLOSSARY

Glossary

Introduction

1.1.1 This document contains a list of definitions and abbreviations, collectively called the Project Glossary, that are commonly used across the DCO Application. Individual application documents contain separate glossaries with additional terms that are specific to the content of the document.

Definitions

Airport Boundary – the boundary of Gatwick Airport is defined on the Airport Boundary Plan (Figure 108). The airport is divided in two landside and airside areas, described below.

Airside – the area within the Airport Boundary that relates to the aircraft movement area of an airport, adjacent terrain and buildings or portions thereof, and to which access for the general public is restricted. For example, this includes the airfield, runways, taxiways and hangers. The Airside area is shown on the Landside and Airside Boundary Plan (Figure 109).

Air Transport Movement ("ATM") – a landing or take-off of an aircraft.

Application Site – (also referred to as the 'Project Boundary' and 'Site Boundary') – the application site is defined by the Order Limits shown on the **Location Plan** (Doc Ref. 4.1).

Autumn 2021 Consultation – the statutory consultation which ran for 12 weeks from 9 September to 1 December 2021. The consultation set out the key elements required to enable dual runway operations and support increased passenger numbers, along with a Preliminary Environmental Information Report which presented the preliminary findings of the environmental impact assessment of the Project's proposals as at that point in time.

Associated Development – development within the Order Limits that is associated to the Northern Runway Project in line with Section 115 of the Planning Act 2008.

Development Consent Order ("DCO") – the Development Consent Order will secure the extent of the consent and what development can be carried out and grants the undertaker the powers which are necessary to deliver the Project. A draft Development Consent Order is submitted as part of the DCO Application.

DCO Requirements – a requirement under the Development Consent Order which is proposed to control the construction, operation and maintenance of the development (if consented).

Environmental Statement – presents the findings of the Environmental Impact Assessment for the Project and forms Book 5 of the Application. EIA is the process of identifying and assessing the significant effects likely to arise from the Project. This requires consideration of the likely changes to the environment, where these arise as a consequence of the Project, through comparison with the existing and future baseline conditions and describing any mitigation measures which are required.

Gatwick Airport – an international airport located in the county of West Sussex between the towns of Crawley and Horley. Gatwick Airport is majority owned by VINCI Airports, with the remainder owned by a consortium of investors managed by Global Infrastructure Partners.

Gatwick Airport Limited – the company licensed to operate Gatwick Airport (i.e. the 'airport operator') by the Civil Aviation Authority and the Applicant for the Application for development consent for the Project under the Planning Act 2008.

Gatwick Diamond – business led private/public sector partnership promoting economic growth in a defined area between Croydon and Brighton. Part of the Coast to Capital Local Enterprise Partnership.

Landside – the area within the Airport Boundary (and outside the Airside) to which the general public has unrestricted access. For example, this includes access roads, car parking areas, public transport interchanges, hotels, offices and terminal check-in areas. The Landside area is shown on the Landside and Airside Boundary Plan (Figure 109).

Nationally Significant Infrastructure Projects ("NSIPs") – major infrastructure projects relating to energy, transport, water, waste water or waste and which are defined under the Planning Act 2008. The 2008 Act sets out thresholds above which certain types of infrastructure development is considered to be nationally significant and requires permission through a Development Consent Order. The Northern Runway Project is classed as a NSIP due to the passenger increase and the road improvements needed to support it.

National Highways – a government-owned company charged with planning, building, operating, maintaining and improving motorways and major A roads in England (collectively called the strategic road network). National Highways was formerly titled the Highways Agency and Highways England.

Northern Runway Project – (also referred to as the 'Project' or the 'Proposed Development') – comprising the proposals for which development consent is being sought under the Planning Act 2008. The Northern Runway Project proposes alterations to the existing northern runway at Gatwick Airport which, together with the lifting of the current planning restrictions on its use, would enable dual runway operations. The Project includes a range of infrastructure and facilities which, with the alterations to the northern runway, would enable an increase in the airport's passenger throughput capacity.

Off-Airport Land – land falling within the Order Limits of the Northern Runway Project outside the Airport Boundary. This principally relates to the surface access improvement works, including improvements to highways and active travel routes, that are part of the Northern Runway Project.

Order Land – land over which the application is seeking compulsory acquisition or temporary possession powers.

Order Limits – the limits shown on the Location Plan (Doc Ref. 4.1) comprising the extent of the proposed Project boundary.

Passenger Throughput – the number of air passengers that use the airport, including arrivals and departures. The throughput is usually referred to on an annual basis, i.e. the annual passenger throughput.

Preliminary Environmental Information Report ("PEIR") ,– presents the preliminary findings of the environmental impact assessment. The Autumn 2021 Consultation presented the preliminary environmental information to enable consultees to understand the likely significant environmental effects of the scheme proposals based on the environmental information available at the time and measures proposed to avoid, prevent, reduce or mitigate any residual environmental effects.

Section 106 Agreement – a legal agreement between the Applicant and specific Local Authorities that will set out the planning obligations that are not considered appropriate to be secured as requirements to the DCO.

Summer 2022 Consultation – a hybrid statutory/non-statutory consultation which ran for six weeks from 14 June to 27 July 2022. The targeted, statutory consultation element considered changes to the proposed highway improvement works; and the non-statutory Project update element included an update on other proposed changes to other aspects of the proposals which were not considered to lead to any new or materially different significant environmental effects from those reported in the Autumn 2021 Consultation.

Inter-terminal transit system ("ITTS") – the automatic shuttle service at Gatwick Airport that runs between the North and South Terminals for airport passengers, visitors or staff travelling by foot.

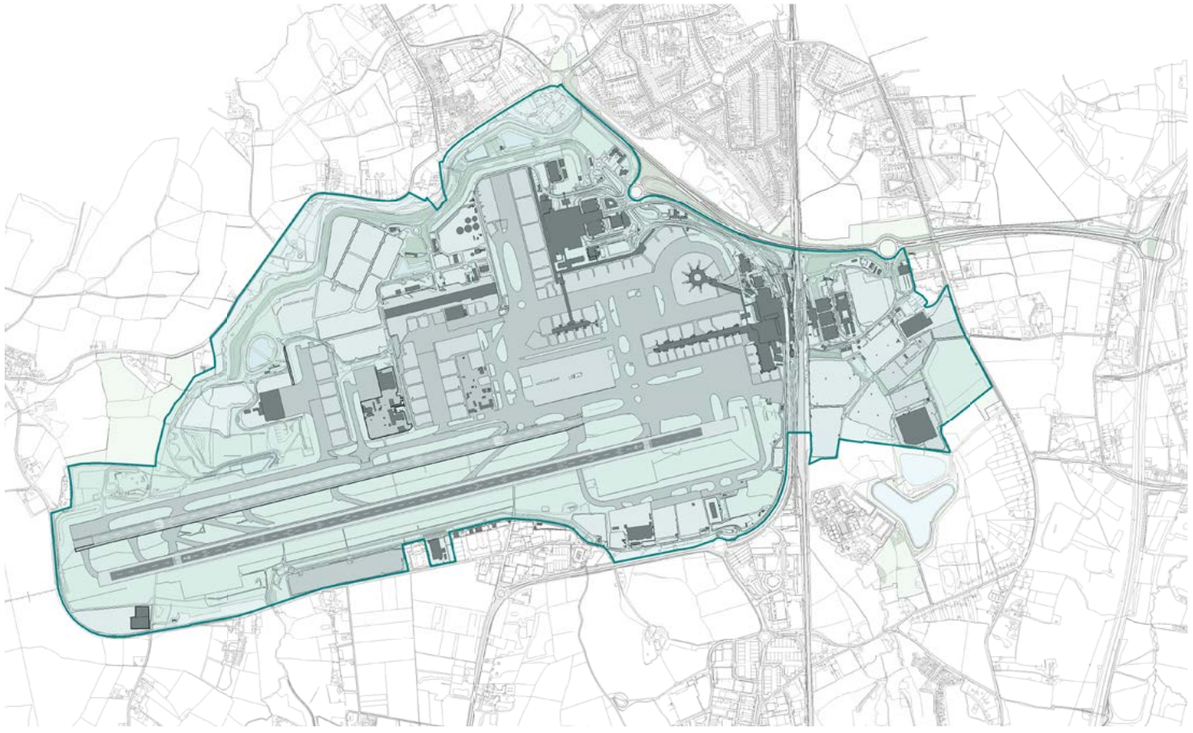


Figure 108. *Gatwick Airport - Airport Extent*

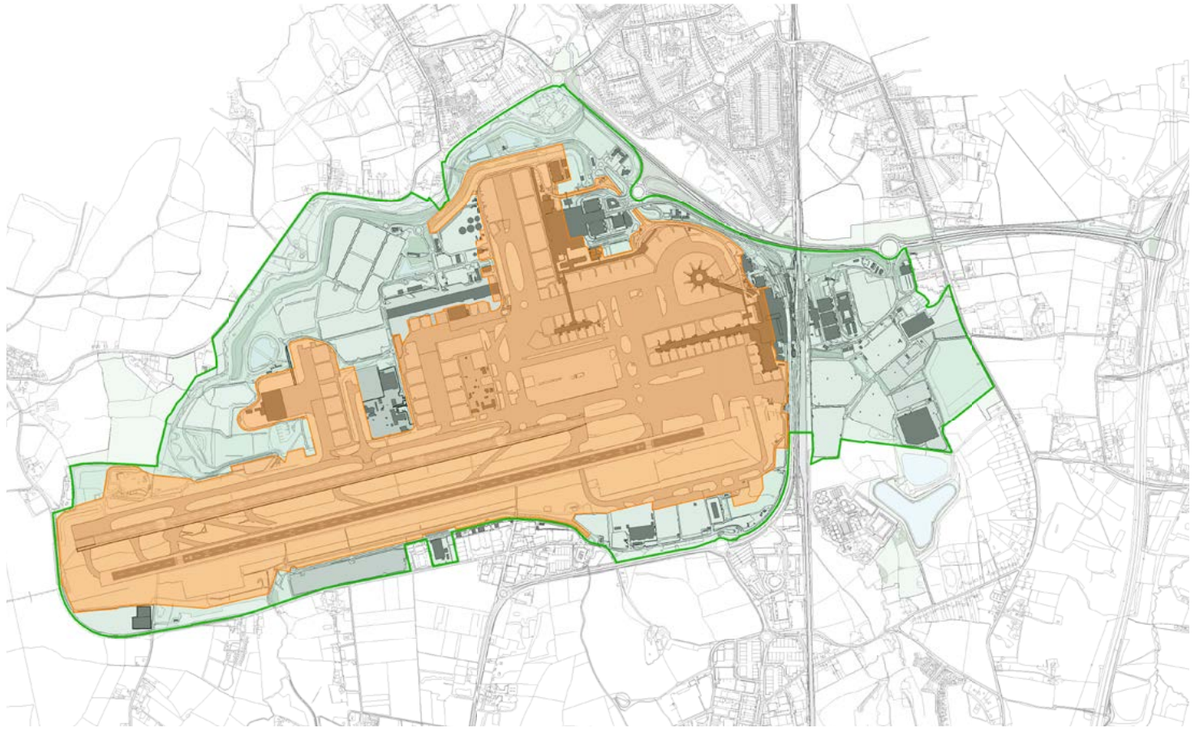


Figure 109. *Gatwick Airport - Landside/Airside*

Abbreviations

ANPS – Airport National Policy Statement
APF – Aviation Policy Framework
ATC – Air Traffic Control
ATM – Air Transport Movement
BAA –British Airports Authority - the former owners of Gatwick Airport
BOH – Back of House - None Public Areas
CAA – Civil Aviation Authority
CAP –Carbon Action Plan
CMMP – Construction Materials Management Plan
CoCP – Code of Construction Practice
CTMP – Construction Traffic Management Plan
CWTP –Construction Workforce Travel Plan
DCO – Development Consent Order – the form of planning consent for Nationally Significant Infrastructure Projects
DfT – Department for Transport
EIA – Environmental Impact Assessment
ES – Environmental Statement
FRA – Flood Risk Assessment
FOH – Front of House - Public Areas
GAL – Gatwick Airport Limited
GATCOM – Gatwick Airport Consultative Committee
ICAO – International Civil Aviation Administration
IDL – International Departures Lounge
ITTS – Inter-terminal transit system (or 'shuttle')
LEP – Local Enterprise Partnership
LGW – London Gatwick Airport
LTO – Landing and Take-off cycle
mppa – Million passengers per annum
MRM – Mitigation Route Map
MSCP – Multi-storey Car Park
NATS – National Air Traffic Services
NRP – Northern Runway Project
NSIP – Nationally Significant Infrastructure Project
NT – North Terminal
oLEMP – Outline Landscape and Ecology Management Plan
PEIR – Preliminary Environmental Information Report
RET – Rapid Exit Taxiway
SAC – Surface Access Commitments
ST – South Terminal
STW – Sewage Treatment Works
TA – Transport Assessment
WMP – Water Management Plan

List of Figures

DETAILED PROPOSAL BY ZONE

GLOSSARY

DESIGN AND ACCESS STATEMENT VOLUME 3

LONDON GATWICK