

a covered plaza area.

To the west the proposed terminal extension extends over the four floors and a small extension is added to the existing basement for service and plant access. The bulk of the accommodation is on the ground and first floor with a smaller service and operational spine on the second floor. This extension incorporates:

- Level -10 (basement) - a basement extension linking the existing basement with a new vertical access core including service lifts and stairwell with staff and goods search/storage facilities;
- Level 00 (ground floor) - a re-configuration of the baggage reclaim areas with an extension to the international baggage reclaim which will now accommodate additional conveyors, a re-sited domestic baggage reclaim, ground handling facilities and a landside arrivals concourse with retail and catering units on the ground floor;
- Level 10 (first floor/apron level) - an enlarged central search area with staff accommodation, an expansion to the departures lounge retail area and new immigration complex on the first floor accessed from the arrivals walkways and airside coaching drop off via a vertical circulation core of stairs, lifts and escalator; and
- Level 20 (second floor) - a service corridor with both storage and staff accommodation on the second floor.

To the south, the proposed terminal extension extends over two floors. This extension incorporates:

- Level 10 (first floor/apron level) – This building replaces the current coach deck. This coach deck currently provides access for coaches to service terminal coaching gates. These coaching gates will be decommissioned. Consequently, this generates space for new toilet facilities, PRM facilities, departures concourse and retail layout improvements, covered passenger arrival corridors, re-sited domestic baggage reclaim access from apron; and
- Level 20 (second floor) - an extension to the existing food and beverage (F&B) area on the mezzanine floor to include additional space which in turn allows for improvements to passenger circulation within the current concourses. The proposed West Terminal Extension Phase 2 links to the existing Western Walkway to maintain departing and arriving passenger circulation routes.

The associated vertical circulation cores for arriving passengers will provide more efficient links from level 10 (apron level) up to the primary arrivals route on level 20.

Air handling units are sited on the airside roofs of both extensions (see floor plans) and are screened from view to the north by the mezzanine spines and to the south by the walkway.

To the north, the proposed canopies on Level 00 (ground floor) provide a covered plaza to gather, orientate and direct both arriving and departing passengers. An opportunity for an external vertical circulation core will provide a more direct secondary means of access to the central search area for pre-checked in departing passengers.

The westerly extension to the terminal, and the associated increase in capacity as a result of this development, has a subsequent effect on the service yard component of the facility. The existing delivery yard is to be expanded to better serve the 12 mppa capacity and will primarily be used for all terminal retail, catering and operational partner deliveries and to manage waste from across the airport.

5.3.2 Amount

The terminal building is a system of interactive components, each of which needs to be planned to provide a balanced passenger process from forecourt through to aircraft.

The floor areas (m²) of the existing terminal and proposed extensions are set out in Fig. 5.3.2 below.

	Existing Terminal <small>Includes EWCG + Mezz F&B</small>	South Extension	West Extension	Totals
Level -10	4,455	n/a	995	5,450
Level 00	12,160	n/a	3,500	15,660
Level 10	12,720	1,820	4,475	19,015
Level 20	8,100	1,710	2,065	11,875
Totals	37,435	3,530	11,035	52,000

Fig 5.3.2 Terminal Floor Areas

The floor area and processing unit (x-rays, immigration desks, baggage belts etc.) requirements are generally determined by capacity projections.

The retail provision will be concentrated in the departure lounge. Landside retail is provided in the ground floor landside concourse, comprising food and beverage, confectionary/tobacco/news and arrivals gift shops.

The capacity of a passenger terminal building is a function of three factors:

- The design passenger flow rate;
- A space standard relating to the space per passenger available at each facility within the building; and
- A service standard relating to the level of service provided at each facility (such as the queuing time).

Passenger flows through the building are subject to daily, weekly and seasonal peaks, consistent with most airports. It is best practice to plan to accommodate the passenger throughput appropriate to the thirtieth busiest hour of the year, so that the terminal building operates at or below capacity for all but thirty hours of the year. BAL applies space and service standards appropriate to an optimum level of service as defined by the International Air Transport Association (IATA).

The proposals to increase passenger throughput towards 12 mppa will lead to an increase in the number of deliveries and waste being produced, which means that further space is required for handling goods and storing waste. The proposed service yard will benefit from an increase in size to approx. 0.43 Ha (including undercroft areas). There is also an increasing requirement to recycle more waste on site which means that additional storage and sortation space is required for each recycling stream. A covered area is incorporated into the design by way of the undercroft element beneath the first floor plate.

5.3.3 Layout

The airport configuration is basically designed to accommodate two procedures; departing and arriving. The proposed extensions integrate with the existing terminal operations and maintain the strategy of segregating departures and arrivals within the building. Figs. 5.3.3A, 5.3.3B, 5.3.3C and 5.3.3D illustrate the proposed floor plans and provide in detail the layout of each floor. Circulation routes are key to understanding the layout of the terminal.

i. Departures

- Departing passengers (departures), both domestic and international will access the terminal building from the transport interchange and car parks via a bridge link from the multi-storey car park, and proposed canopies to the north of the terminal on a landscaped plaza.
- Passengers check-in and/or bag drop in the check-in halls and then access the first floor landside departures concourse via escalators, stairs and lifts.

ii. Arrivals

- From the first floor landside departures concourse, passengers access the main airside departure lounge via a central security complex incorporating large queuing/processing areas.
- The terminal airside departures area consists of seating and retail units at aircraft parking apron level (Level 10), and an upper mezzanine level (Level 20) with bars, restaurants and associated seating. The domestic and international departures route to the vast majority of boarding gates in the east and west walkways and piers is via the mezzanine floor which is accessed from the apron level retail area by escalators/stair core in the east extension and two existing lift and stair cores which currently provide mezzanine access.
- Arriving passengers (arrivals) access the arrivals corridors in the east and west walkways/piers either via arrivals gates and stairs from apron level, or directly from airbridges. To reach the terminal building, arriving passengers use corridors which are completely segregated from departures and potential crossover situations are avoided by the use of vertical circulation to and from boarding and arrivals gates.
- International arrivals access a vertical circulation core with escalators, stairs and lifts to the immigration hall sited on the intermediate (apron) level 10 within the terminal. This core provides movement down from the arrivals walkways.
- Having cleared immigration, arriving passengers access the ground floor international baggage reclaim area via another vertical circulation core with escalators, stairs and lifts.
- Domestic arrivals access a separate domestic baggage reclaim area via vertical circulation from apron level access.
- All arrivals exit the terminal via a landside arrivals concourse incorporating some retail and F&B units and out onto the pedestrian plaza with a covered canopy access to the bridge linking the plaza to the transport interchange and car parks.



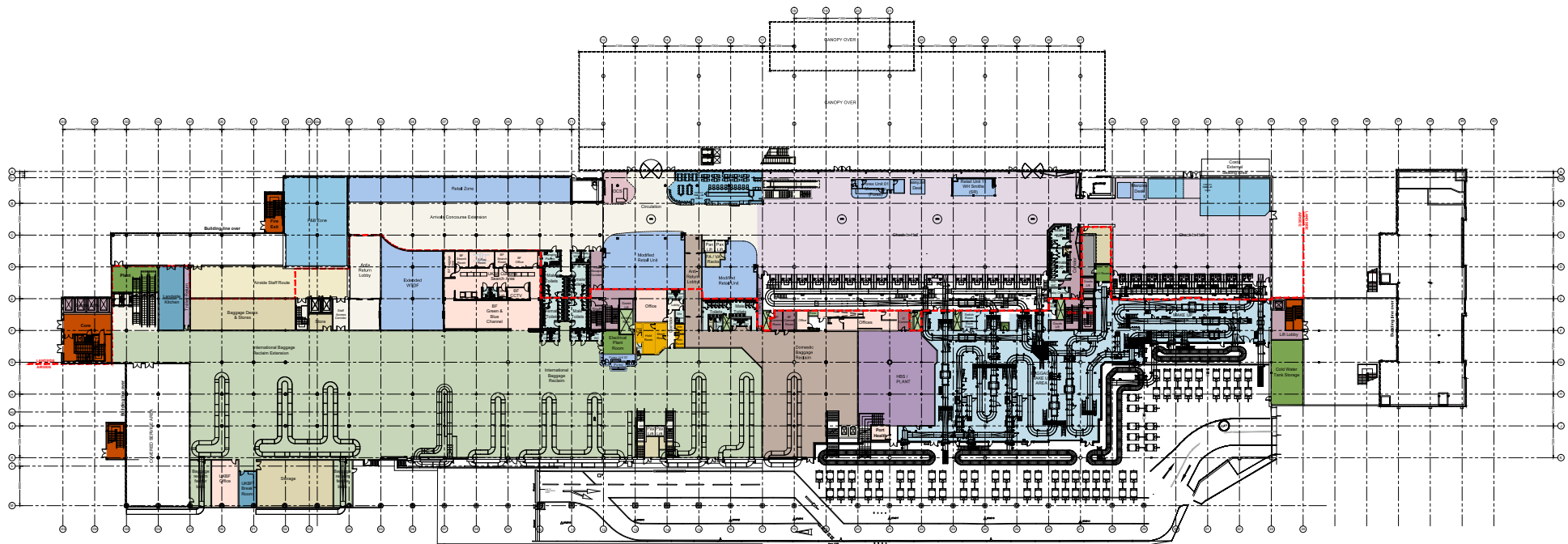


Fig. 5.3.3B Ground Floor Plan

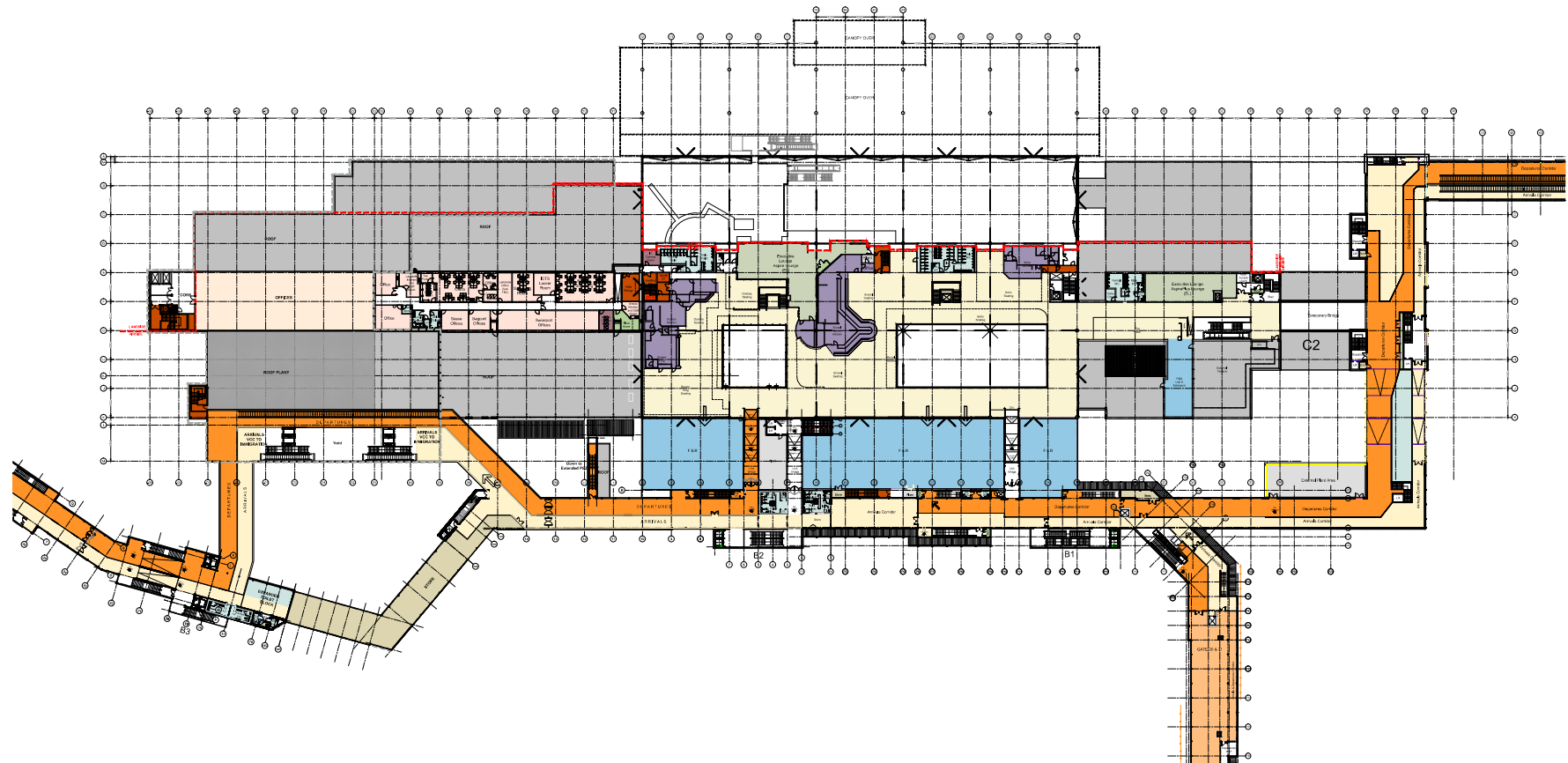


Fig. 5.3.3C Mezzanine Floor Plan

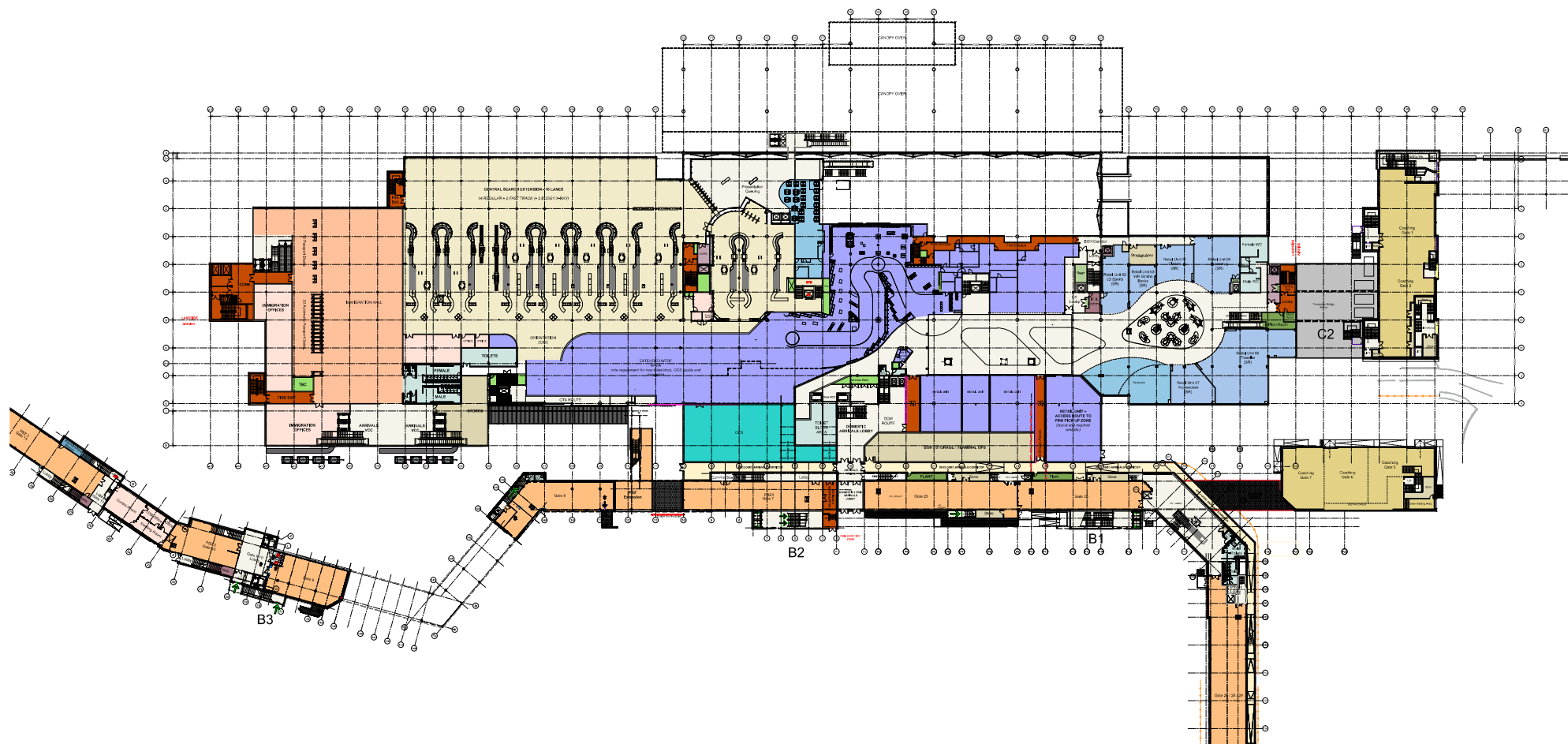


Fig. 5.3.3D First Floor Plan

iii. Operational Offices

The increase in capacity and some re-configuration of the existing terminal introduces the necessity to provide additional offices and back of house facilities for staff, mainly in security, retail and catering, immigration and customs (UK Border Agency).

iv. Service yard

The service yard is bounded by the existing roads, drop off zone and proposed plaza to the north, the extended terminal to the east, vehicular circulation to the west and existing passenger operation buildings to the south. These parameters define the plan layout. The management of the functional layout of this area will be better defined at detail design stage. That said, the increased retail and catering accommodation, security regulations and the terminal re-configuration require an updated deliveries strategy. All deliveries will access the new larger service yard to the west of the terminal. Goods in will be through the basement to the West Terminal Extension Phase 2. Landside deliveries will access the ground floor of the terminal directly from this yard and airside deliveries will access the terminal through an expanded security checkpoint within the building and via service lifts to first and second floor storage areas.

5.3.4 Scale and Appearance

The existing terminal building is recognised as a landmark building and it is therefore important that the proposed extensions are modelled to maintain it as a visual centrepiece while at the same time reflecting its rhythm and simplicity. The existing building is formed in tubular steel modules with a fully glazed curtain wall system virtually surrounding the building. Where function dictates, the glass modules are replaced with metal faced cladding.

In terms of scale, the West Terminal Extension is set out with a 7.2 metre by 7.2 metre structural grid and two storey landside frontage is 9.3 metres high, while the set back upper storage spine is 12.9 metres high (level with the existing terminal eaves).

The South Terminal Extension is set out with a 7.2 metre structural grid where applicable and infills the space between the southside of the terminal and the northside of the Western Walkway and Central Pier. The roof to this infill development extends from terminal eaves level to interface and overlaps the existing Western Walkway and Central Pier roof. The height of this upper eave is approximately 9 metres above apron level, so this will not be visible from exterior due to the existing walkway, so the design of this element has focused on function. The associated vertical circulation cores for arriving passengers are efficient in layout to minimise effect on airside operations. The heights of these are dictated by existing floor levels and lift core heights.

The proposed canopies to the north are based on the primary structure of the terminal and the height of the main canopy matches that of the terminal eaves. The lower height canopy at the interface with the MSCP bridge is similar but at a smaller scale. These canopies will have a transparent ETFE (ethylene tetrafluoroethylene) roof.

With regards to the appearance, the roof structure is the paramount visual feature of the existing building and it was felt important to deliver consistency within the expanded development.

The public landside facades of West Terminal Extension are two storey glass structures. These make reference to the existing building in glazing pattern and structure, but pay due deference to it, particularly the roof structure, by the use of scale and a simple 'glass box aesthetic'. Second floor upper level spines step some 27 metres back from the two storey facade and link both extensions to the upper mezzanine level (roof structure level) of the existing building, but these are deliberately restricted to minimise the visual effect on the existing roof structure.

The first floor landside west extension is dedicated to the departures security search area. This area is fully glazed and north facing, ensuring that views are available onto the open countryside and maximum use is made of natural light, while also keeping solar gain to a minimum.

The ground floor landside west extension provides a fully glazed naturally lit arrivals space with views out to the pedestrian plaza, transport interchange and the countryside beyond. This gives a sense of orientation for the arriving passengers enhancing their arrivals experience.

The south extension is essentially a 2 storey infill development and will consist of east and west gable walls with new pitching roof with rooflights. The gable walls will incorporate glazing but will be metal clad for the most part.

The airside departures area is expanded with general lounge seating and retail outlets at apron level and enhanced food and beverage areas on the mezzanine level as per existing. The existing lightwells will be enhanced in the east extension by an additional glazed roof area providing naturally lit spaces in these areas. Filtered views will be available onto aircraft parking areas through the glazed sections of the external passenger walkways.

The canopies to the north will be supported on structural columns and 'tree' like framework similar to that within the existing terminal. The canopies will have a curved transparent ETFE roof to ensure that a maximum amount of light is given to this northerly orientated external space.

Structurally, the terminal extension will be constructed of a steel frame which will take a similar form of construction to the existing terminal. The structure of the proposed canopy to the front of the existing terminal will be constructed of steelwork columns and beams with a glass roof. The columns will provide overall stability and support the structure and will be kept to a minimum to allow maximum flexibility of the space and movement of people. The canopy structure will be separate from the main terminal building to allow for any differential settlement to occur. The glazed roof ensures that natural daylight into the space is maximised.

With regards to the proposed materials, the proposed 'glass box' frontage and curtain wall rhythm echoes that of the main terminal and glazing, and the curtain wall frame and associated façade structure will match the existing. The glass will be laminate doubled glazing and treated to reduce solar gain. Cladding to the airside areas will be of insulated metal composite type to match existing.

The service yard facility will be screened from public view for the most part. Passengers have the opportunity to view down to this area from level 10 of the West Terminal Extension north elevation, so sense of place manifestation will be applied to this glazing to screen this foreground view. The surface material to the yard will be concrete with paint markings to demarcate different zones including safe staff access ways.

5.3.5 Access

Refer to section 5.0 for a detailed appraisal of access issues.

More specifically for the service yard, there is no change to the vehicular access from the A38 to this proposed service yard as it is generally still in the same location in relation to the terminal albeit further westwards. Delivery and waste vehicles from the A38 will utilise the Northside Road and then south of the existing drop off zone to a controlled access point to the west of the service yard.

Staff can access the service yard from the terminal yard and demarcated routes will be established to provide safe passage through this area.

5.3.6 Landscaping

The northside of the proposed service yard flanks the passenger plaza. These 2 functions will be separated by a glazed screen with stainless steel supports. The glazing will be opaque to conceal the delivery yard function from the passenger plaza.

Refer to section 6.0 for a detailed appraisal of landscaping issues.

5.4 East Walkway and East Pier

5.4.1 Use and Layout

In general, passengers can access the aircraft from the terminal by either coaching or walking. Walking is the preferred mode as this provides both operational advantages and a better passenger experience than coaching. The airport business model assumes a mix of full service carriers, charter carriers and low cost carriers (LCCs) who require a fast turnaround time. To achieve the latter, passengers have to be boarded rapidly and the preferred airline operating procedure is to collect passengers into structured queues in a pre-board zone at the aircraft stand immediately before boarding. This operation has become widely used at other airports in the UK and across the world.

The design of the walkways and piers need to achieve segregation of arriving and departing passengers to ensure that passengers reach the aircraft easily and efficiently. The walkway layout therefore needs to allow mixed flight loads of passengers to walk freely from the terminal to the aircraft stand when flights are called forward. It needs to be configured so that arriving and departing passengers cross one above the other using 'vertical segregation' providing free flows. Space needs to be provided at the aircraft stand to assemble passengers prior to final boarding checks and embarkation.

The proposed scheme therefore includes for the development of passenger walkways and pier linking the terminal building with the aircraft stands on the east aprons. The walkway to the pier is 2 storey with the upper floor used as a passenger walkway for arriving and departing passengers and necessary segregation between the two. The northern departures portion provides access to boarding gates in the pier and pre-board zones at apron level where passengers queue immediately prior to boarding the aircraft. The southern arrivals portion collects passengers from the arrivals gates at each aircraft stand and directs them to the immigration hall for international passengers without crossing over the departures routes. The walkways are glazed, rewarding the passenger with continuous views towards the apron and runway to the south, and views across the countryside to the north.

5.4.2 Amount

The east walkway will incorporate approximately 3,000m² over two floors with the upper level accommodating departures and arrivals walkways with a pre-board zone on the ground floor and associated departing and arriving vertical circulation cores. The remaining ground floor space will be left open to allow for apron circulation and operations.

The east pier will have an approximate floor area of 3,815m² over two floors with six boarding gates (five on the ground floor and one on the first floor) and associated departing/arriving vertical circulation cores.

5.4.3 Scale and Appearance

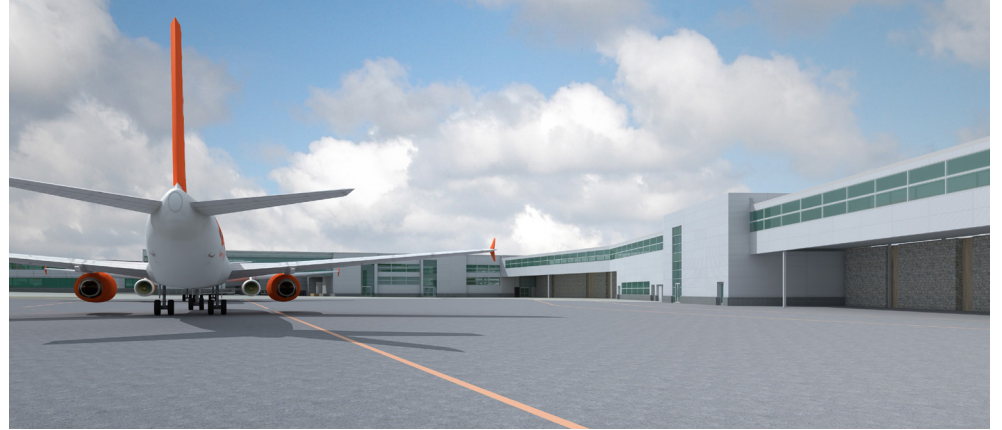
East walkway: The east walkway is approximately 275 metres long (from the east end of first phase of the east walkway coaching gates - now under construction) and varies between 9.5 metres and 14.5 metres wide. At the stair core areas, the width increases to 14.5 metres. The walkway height averages 10 metres.

East pier: The east pier is approximately 195 metres long and varies between 8 metres and 16 metres wide. At the stair core areas, the width increases to a range of 12 to 16 metres depending on stair layout. The pier height varies but averages approximately 11 metres.

Appearance is a reserved matter, however, the walkway and pier are designed to make reference to, and indeed visually integrate with, the existing terminal and its extensions. The general form of the walkways and piers are determined by their function. Generally, all are two storey structures with PBZ departures and arrivals stair and lift cores protruding beyond the walkway corridor spine/pier lounge spine at regular intervals. The stair cores have been grouped to form a massing which sits proud of the main spines, both horizontally and vertically, thereby giving visual relief to the long facades. With the exception of the north landside façade of the east walkway, the cladding and glazing to the walkways and piers are of a typical airport aesthetic with horizontal cladding panels interspersed with glazing in the same rhythm.

5.4.4 Access

See section 5.0 for a detailed description of access.



5.5 Eastern Taxiway Link, widening of existing Taxiway Golf, Stands 38 and 39 and associated Acoustic Barrier

5.5.1 Use

A new eastern taxiway link at the far eastern end of the runway will be constructed, providing an additional linkage between the runway and the east apron. This linkage will be approximately parallel to the existing two taxiways, taxiway Bravo and taxiway Alpha. The operation of this new link will allow improved and efficient access to the runway for aircraft.

Taxiway widening (and fillets) to the southern edge of the northern most taxiway (taxiway GOLF) is required to provide a parallel taxiway system for improved access and movement of aircraft. This will be a continuation of the current surfacing, with extensions proposed from its western extent (adjacent to aircraft stands 34-37) along the entirety of the west and east apron to taxiway Bravo.

A faceted acoustic barrier, approximately five metres in height will be erected to separate the north east of the far eastern apron, which is currently under construction, from the airport entrance road. The alignment of this acoustic barrier has been altered from consented proposals due to the new link road between the proposed airport gyratory and A38. This will complement the proposed Eastern Walkway which also provides acoustic mitigation.

5.5.2 Amount

The eastern taxiway link varies along its length responding to the swept path of the aircraft using it. The minimum width is 23 metres. The link is approximately 180 metres long (if measured to the southern side of the runway). New airfield ground lighting (AGL) will be provided in accordance with current regulations.

The widening of Taxiway Golf increases from 15 metres to 25 metres. Fillets are also proposed to facilitate aircraft turning to existing Taxiway Foxtrot. The area of these widening elements will be approximately 17,140m². Fillets are provided to taxiways Foxtrot and Delta to an appropriate size of the aircraft making the turn. Sizes of these elements are included in area above. New AGL will be provided in accordance with current regulations.

The proposed faceted acoustic barrier will be approximately 5 metres in height and approximately 115 metres in length, partially replacing the 5 metre acoustic barrier which is currently being constructed as part of the Far Eastern Apron. As the position of this barrier effectively overlaps the position of the East Pier, there is an opportunity to reduce the height of this barrier and allow the East Pier building to perform as the acoustic barrier. The lower height element is approximately 100 metres long and completes the airside landside barrier for this section of the airfield. Holistically, these barriers separate the north east of the new outer eastern apron from the airport entrance road.

5.5.3 Layout

The layout of the eastern taxiway link and taxiway widening elements have been determined by the requirement to improve runway access. The proposed layouts will allow improved and efficient access to the runway for aircraft.

The layout of the revised acoustic barrier has been determined by the new gyratory and link road from the A38. The proposed acoustic barrier extends from a section of existing acoustic barrier and forms a continuous acoustic and security barrier for this section of the airfield.

5.5.4 Scale and Appearance

It is proposed that the new taxiway link will be constructed of either asphalt, concrete or a composite combination of these materials. This will be a continuation of the current surfacing and will have a footprint of approximately 0.51 Ha.

It is proposed that the new taxiway widening areas will be constructed of either asphalt, concrete or a composite combination of these materials. The area covered by this improvement is approximately 1.81 Ha.

The acoustic barrier and the associated airside landside security barrier will be finished with vertical timber planks on both sides.

5.5.5 Access

Refer to section 5.0 for a detailed appraisal of access issues.

5.5.6 Landscaping

Opportunities for landscaping and planting are limited in the operational environment of the aircraft apron. There are opportunities for landscaping and planting to the north of the proposed acoustic barrier, adjacent to the airport entrance from the A38 roundabout.

5.6 Gyratory Road

5.6.1 Use

The gyratory road comprises a two lane one-way gyratory system that provides a connection between the A38 with the northern components of the airport, including the main terminal building, multi-storey car park and surfacing car parking areas. This will provide additional capacity to the current Northside Road, improving access onto the A38. It also improves the legibility for drivers arriving at the airport.

The design of the gyratory road provides the opportunity to create a separate car parking area within the centre of the gyratory. This would be in place of existing car parking.

The gyratory road also provides an opportunity for passengers to interchange between shuttle buses and the car parking areas through the provision of bus stops on the circulatory carriageway.

5.6.2 Amount

The proposed gyratory will be developed over existing car parking. The extent of the gyratory will affect the layout and amount of existing car parking spaces.



5.6.3 Layout

The gyratory carriageway will be approximately 7.5 metres wide with local widening on the corners. Earth works are required to accommodate the level changes necessary to transition from the westbound carriageway to the eastbound. The current entry road will be widened from three lanes to four providing a dualled section of carriageway between the new gyratory and the existing airport roundabout. These new works which also consist of levels changes within the gyratory to facilitate car parking are over an area of approximately 35,000m².

The proposed gyratory road is approximately 700 metres long, with 35 metre inscribed circle diameter at either end of the road. The circulating carriageway is approximately 7.5 metres wide on the straight sections and widens to approximately 8 metres on the circulating sections.

The gyratory road comprises six arms on the outer edge and a separate entrance and exit arm within the gyratory to serve the central parking area.

There is a two metre pedestrian footway along the southern edge of the gyratory that links the main terminal building with the A38, with a new zebra crossing located across the dual carriageway to the east. Access to/from the parking areas for pedestrians will be provided in the form of shuttle buses that stop on the gyratory in designated lay-bys, and a new pedestrian subway to serve as access to the central parking area.

5.6.4 Scale and Appearance

The proposed improvements are in keeping with the current character of the area. The road will be constructed with an asphalt wearing course and antiskid surfacing will be applied on the approaches to the zebra crossing. All traffic signs and markings will be provided in accordance with highway design standards applicable to the location/type of road.

The proposed gyratory road will be suitably lit ensuring clear views of all the accesses at night. The lighting strategy will seek to minimize glare.

In order to support the planned drainage strategy, it is proposed that the central car parking areas will be constructed using materials similar to that of the current layout with the use of a durable grid paving system and compacted gravel for parking spaces, and asphalt for parking aisles.

5.6.5 Access

To the east, the gyratory accesses the local highway network via a new two lane dual carriageway that connects on to the A38/Bristol Airport roundabout. This provides pedestrian, cycle and vehicular access into the airport via the gyratory road.

5.6.6 Landscaping

At present Northside Road has intermittent landscaping that runs along both sides of the carriageway. The proposed improvement seeks to maintain a verge to the south as much as possible. Due to the nature of the proposed improvement the northern hedges and trees will need to be removed and replaced within the new gyratory road.

Within the design of the new gyratory road, there are areas where it is possible to re-provide tree and hedges to improve the aesthetics of the proposals.

5.7 A38 Highway Improvements

5.7.1 Use

The proposed highway improvements on the A38 between the main airport roundabout and West Lane will serve the highway capacity through to 12 mppa. The improvements include signal controlled junctions and road widening. In support of the design principles, the focus of this proposal is to improve multi-modal access to, from and past the airport site.

5.7.2 Amount

The existing A38 carriageway will be widened from two lanes (one in each direction) to four lanes (two in each direction). This widens the existing road from approximately 10 metres to 16 metres. This varies at the junction with Downside Road where, on the southside of the junction, the road widens to 5 lanes from 3 to allow for the left turn into Downside Road from A38 (N) resulting in a carriageway width increase from approximately 11 metres to 21 metres.

Downside Road at the junction with the A38 widens from two lanes (one in each direction) to four creating two lanes in each direction. The westbound lanes form the continuation of Downside Road and a right turn ghost island into the Airport Tavern site. The road width increases from approximately 5.6 metres to 12.5 metres.

The existing footway between the airport roundabout will be widened from 1.7 metres to 3.5 metres to provide a shared footway/cycleway. This footway will continue along Downside Road and stop at the access roads to residential properties on the A38. The existing footway from the A38 Junction with Downside Road across the front of the Airport Tavern will be relocated towards the Tavern with the width increasing slightly from 1.7 metres to 1.8 metres. This footway ties into the existing prior to Oakwood House.

The existing footway on the east side of the A38 will be maintained.

The area of new construction is approximately 3,800m² consisting of both new carriageway and footway/cycleway.

5.7.3 Layout

The A38 varies in width along its length; close to the airport it is a two way road on a single carriageway with local widening at the main airport roundabout. A shared footway cycle track is provided between West Lane and the airport on the eastern side of the road. The Downside Road junction is currently signalised with dedicated facilities provided for pedestrians and cyclists. Traffic is currently unable to turn right into Downside Road. Instead the traffic has to continue south U-turning at the airport roundabout. West Lane is an all movement priority junction.

The development of this proposal benefited from consultation with NSC highway engineers. The proposed improvement maintains the existing traffic signal operation at Downside Road but also signalises the West Lane junction. This junction restricts traffic to turning left on exit



from West Lane and the controllers will be linked to ensure the operation is optimised for traffic demand. Further software and detection will be added in the form of MOVA which produce a local traffic control system which can maximise throughput and react quickly to changes in demand. The main carriageway is widened to provide two lanes in each direction over the whole of the proposed improvement, tapering back to one lane and tying onto the existing carriageway 130 metres north of West Lane.

Downside Road is locally widened to two lanes to the A38 and an additional turning lane is provided to the airport road as it ties into the A38. Pedestrian and cycle crossing facilities are built into the proposed Downside Road junction. The existing footways and share cycle facilities are also maintained, along with a new enhanced 3.5 metre shared cycle track/footway linking the airport and Downside Road.

5.7.4 Scale and Appearance

The proposed improvements are in keeping with the current character of the area. The road will be constructed with an asphalt wearing course and antiskid surfacing will be applied on the approaches to the signal stop lines. All traffic signs, signals and markings will be provided in accordance with highway design standards applicable to the location/type of road.

Street lighting will be adjusted to ensure the additional carriageway areas are covered. The equipment and operation will match current NSC design standards which included dimming at night.

5.7.5 Access

The design of the proposed improvement maintains the current access to existing residential and business properties which border the A38 and Downside Road. The exception to this is the Airport Tavern and the current below standard access arrangement. This proposal aims to significantly improve this particular site access point constructed off Downside Road.

Where applicable, hatched turning areas are provided to enable users to pull off the carriageway before completing the turn into the relevant properties. Pedestrian footways are provided along each side of the road with the existing shared cycle track maintained on the eastern side of the road. A new 3.5 metre wide shared facility is provided between the airport and Downside Road. Dedicated facilities with drop kerbs are provided at the Downside Road junction to improve walking and cycling provision. Access is maintained to the footpath which runs along the northern boundary of the Airport Tavern land.

5.7.6 Landscaping

The A38 currently has a verge north of West Lane and the common has spread onto part of the footway to the east before Lilac Cottages. The proposed improvement seeks to maintain a verge to the north of West Lane. The nature of the proposed improvement means that there is limited scope for additional landscaping.

Refer to section 6.0 for a detailed appraisal of landscaping issues.

5.8 Silver Zone Car Parking Expansion (Silver Zone Car Park Extension (Phase 2)) and Proposed Alterations to Existing Use

5.8.1 Use

It is proposed to extend the Silver Zone car park in the south western corner to provide up to 2,700 spaces. This will form part of the valet car parking operation with cars block parked. It is proposed that this car park will be operated throughout the year. The proposals also include a revision to Silver Zone Phase 1 (constructed as part of the 10 mppa proposals) so that it can be operated throughout the year as opposed to its current seasonal use (1st May to 31st October).

5.8.2 Amount

It is proposed that all spaces on the Silver Zone car park extension Phase 2 on the Cogloop site will be block parking providing circa 2,700 spaces on a site of 3.73 Ha. The cars will be valet parked from/to the Silver Zone reception facility. No additional road infrastructure will be required as access will be via the existing Silver Zone car park entrance/exit.

5.8.3 Layout

The layout of the extended car park will be designed in the same format as that of the car park extension (Phase 1).

5.8.4 Scale and Appearance

The car park surface will be comprised of two finishes;

- an asphalt access road and aisles; and
- grass car parking bays formed from a grid paving system infilled with top soil and grass seed.

Permanent lighting is proposed in both Phase 1 and Phase 2 (Phase 1 currently has temporary lighting) and will be designed to minimise light spill, glare and sky glow.

Phase 1 currently benefits from a landscape bund which provides landscape and ecological mitigation. This will remain and will be replicated to screen and mitigate Phase 2 along its southern boundary.

5.8.5 Access

Access to the extended car park will be from the east via a link from the existing Silver Zone car park and through Phase 1 of the Silver Zone car park extension. The public will not have access to the car park. Cars will be dropped off and collected at the Silver Zone reception building.

5.8.6 Landscaping

Refer to section 6.0 for a detailed appraisal of landscaping issues.



