22 SUMMARY OF MITIGATION & RESIDUAL EFFECTS

22.1 INTRODUCTION

This chapter of the ES provides a summary of the mitigation measures recommended and the final residual effects of the proposed development.

22.2 MITIGATION MEASURES SUMMARY

Table 22.1 presents the collated mitigation measures recommended throughout the ES for reference purposes.

These are typically identified as being secured via planning condition or Section 106 obligation.

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

Table 22.1
Mitigation Measures Summary

TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
Transport	Construction	Severance, pedestrian delay, pedestrian amenity, driver delay, road safety	**Construction Management Plan (CMP)** Prior to construction taking place a construction management plan will be agreed with LCC. This will contain a range of measures to reduce the traffic impact of the construction of the development. A draft version of the document to inform the planning application is provided at Appendix 4.1. The draft plan sets out a range of measures that would be employed at the site to reduce transport impact. This includes: ■ Workers to be encouraged to use public transport, walking and cycling wherever possible, staff private vehicles not to be permitted to park on the site and discouraged from parking in nearby streets. ■ Remote car parks to be used by workers who choose to drive. Potential for a shuttle service to these. ■ Designated HGV access routes so that HGVs do not adversely impact on residential areas. ■ The site normal working hours will generally be 7.00am to 7.00pm Monday to Friday and 7.00am to 1.00pm on Saturdays. ■ No works are planned for Sundays or Bank Holidays. ■ Some work outside of normal working hours will be required at times; this will be agreed with LCC in advance in writing. Where appropriate CMPs typically identify temporary traffic management measures which can be deployed on the local road network to mitigate impact this can include temporary signalised pedestrian crossing points. It is also possible in construction management plans to identify specific construction traffic routes. In this way HGV traffic can be limited to use the most appropriate routes to site.	Planning Condition
Transport	Operation	Severance, pedestrian delay, pedestrian amenity, driver delay, road safety	**Travel Plan** Within a defined period following occupation a staff travel plan will be agreed with LCC which contains a series of measures to encourage the sustainable travel of staff working at the proposed development. The measures will seek to reduce travel by single occupancy vehicles and encourage sustainable travel where practical.	Planning Condition
Transport	Operation	Operation of the Transport Network	**Match Day Transport Strategy and Event Day Transport Strategy** On match days and event days, a series of transport measures will be in place in the interest of safety, encouraging sustainable travel and maintaining the operation of the transport system. As part of this a series of permanent and temporary match / event day measures will be in place. This includes the following: **Match Day & Event Day Only Measures:** ■ Hard road closures enforced by Hostile Vehicle Mitigation HVM barrier to both protect and provide road space to pedestrians in streets in the immediate vicinity of the application site; ■ Soft Road closures to prevent match day traffic from entering the streets in the wider vicinity of the application site to provide more road space to pedestrians and protect the amenity of residents and businesses; ■ Traffic Restrictions to slow traffic speeds on key routes and provide more pedestrian space to pedestrians in the post – match period; ■ A pass system will be implemented so that residents and businesses will still have access to their properties and car parking through the closure period. This will be managed by marshals on street; ■ Match day shuttle buses to the city centre and north to Bootle; ■ Match day taxi ranks; ■ Rail staff to manage and marshal the operation of Sandhills station; ■ Coach parking areas created on closed roads; and ■ Disabled shuttle services from Sandhills station and Stanley Park car park (latter being a pre-booked 'park & ride' service). **Permanent Match Measures:** ■ The creation of a waiting area outside Sandhills station for supporters to wait in the post-match period in a safe environment prior to boarding trains.	Planning Condition / Section 278 & Section 106

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
			Parking restrictions within a wide area to prevent match day parking- creation of residents and business only parking zones like those already in existence at Goodison Park. This will prevent supporters from parking within residential, business and other unsuitable areas.	
Transport	Operation	Crowd Disaster & violence	**Crowd Safety Policies and Measures** As part of the development, on match days and event days an 'Event Safety Policy', 'Event Day Contingency Plan' and 'Event Transport Strategy' will be in place. These plans will set in place crowd safety and transport measures to be employed at every match and event day. The Clubs existing Safety Policy sets out responsibilities, and actions to ensure a reasonable level of spectator safety on event days. These would be applied at the new development. Lines of communication with police, internal communications, CCTV monitoring are all described in detail to ensure that each event is as safe as possible. In summary, it sets out the approach to monitoring and preventing crowd disasters and crowd violence including: ■ Stewarding; ■ Crowd management; ■ Inspection & safety reviews; ■ Communications; ■ Fire Precautions; ■ Medical & First Aid requirements ■ Counter – terrorism arrangements ■ Crowd Disorder & Anti-Social Behaviour ■ Contingency Plans. In addition to the Safety Policy, the Working Contingency Plan sets out the plans in place for dealing with emergencies including: ■ Fire; ■ Bomb threat / suspect packages / hazardous substances; ■ Damage to structures / gas leaks, electricity supplies; ■ Safety systems; ■ Crowd problems (including disorder); ■ Evacuation procedures; ■ Control of major incidents; ■ Adverse weather conditions. As can be seen, a comprehensive package of policies and measures will be in place to ensure the risk of crowd disaster and crowd violence is kept to a minimum and that should such an incident occur its impact is minimised as much as practically possible.	Planning Condition and Licencing Requirements
Air Quality	Construction	Dust associated with demolition, construction, earthworks and trackout	Mitigation within Section 7.1 of Appendix 8.1, ES Volume III, to be incorporated into Construction Environmental Management Plan (CEMP)	Planning condition
Air Quality	Construction	Exceedance of Long-Term NO2 Pollutant AQO due to construction traffic	Mitigation in the form of a revised routing plan (such as with more vehicles using Bankhall Street) will need to be undertaken to ensure construction vehicles avoid, where possible the Sefton AQMA.	CEMP via a Planning Condition
Noise	Construction	Noise associated with dock infill, demolition and other construction works on sensitive receptors surrounding the proposed development site during the construction phase.	Best practice noise mitigation, set out in full in Appendix C of Appendix 9.1, to be incorporated into the CEMP. Construction phase vibration monitoring of Grade II listed Bramley Moore Dock walls will be undertaken; baseline monitoring will be undertaking by the contractor immediately prior to the commencement of works on site to identify appropriate thresholds for vibration monitoring to be adopted during construction works. Where practicable, phasing of any percussive piling activities will be scheduled to avoid migration/mating periods of sensitive ecological species as advised by the project ecologist. 2.4m solid hoarding to be erected around the site boundary.	CEMP, secured by planning condition

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
Noise	Operation – Stadium	Potential noise breakout from Building Services Plant and internally-generated noise sources associated with conference/exhibition spaces.	Noise emission limits in relation to breakout from building services plant, conference and exhibition spaces have been specified at 63.6 dB(A) at 1m or 59.3 dB(A) at 3m during the daytime, and 57.4 dB(A) at 1m or 53.8 dB(A) at 3m during the night-time, to achieve levels at least 10 dB below background noise levels.	Secured by planning condition, built into the scheme upon construction
Ground Conditions	Construction	Construction workers and site neighbours coming into contact with soil or contaminated materials (e.g. during earthworks, raking of BMD) with potential for human uptake.	Implementation of appropriate health, safety and hygiene regime (to include PPE and welfare provisions) and good construction practice.	Remediation Strategy and Construction Environmental Management Plan (CEMP) secured by planning condition, implemented by contactor, recorded in Verification Report.
Ground Conditions	Construction	Construction workers and site neighbours coming into contact with soil or contaminated materials with potential for human uptake.	Implementation of good construction practice and dust suppression measures (e.g. dampening, wheel washing, site vehicle speed and route control, control of drop height spoil loading etc.)	Remediation Strategy and CEMP secured by planning condition, implemented by contractor, recorded in Verification Report.
Ground Conditions	Construction	Infiltration and promotion of leaching of contamination to groundwater (Principal Aquifer)	Carry out a Foundation Works Risk Assessment (FWRA). Remove any gross contamination. Implement measures to minimise infiltration. Avoid stockpiling contaminated soil. Any stockpiled material will be covered/ placed on an impermeable surface. Control of shallow groundwater during excavation.	Remediation Strategy and CEMP to accord with FWRA, secured through planning condition implemented by contractor, recorded in Verification Report.
Ground Conditions	Construction	Infiltration and promotion of leaching of contamination to surface water (River Mersey, Port of Liverpool Dock System)	Remove gross contamination. Implement measures to minimise infiltration. Avoid stockpiling contaminated soil. Any stockpiled material will be covered/ placed on an impermeable surface. Control of shallow groundwater during excavation.	Remediation Strategy and CEMP secured by planning condition, implemented by contractor, recorded in Verification Report.
Ground Conditions	Construction	Disturbance of Dock Deposits during raking with potential impact to water quality (Port of Liverpool Dock System) and marine flora and fauna.	Methodology for identification of obstructions / artefacts in Dock Deposits (i.e. raking) will be agreed with the MMO. A separate assessment of risk to water quality or marine flora and fauna will be undertaken as necessary.	Methodology agreed with relevant parties (Natural England, MMO, MEAS)
Ground Conditions	Operation	Vapour / gas migration to enclosed spaces with potential to affect future site users.	Undertake ground gas monitoring of Dock Deposits to define the nature of the ground gas regime, design for any protection measures and inform health and safety for works in confined spaces. Control of entry into any enclosed below ground spaces. Removal of areas of contamination with potential to generate vapours.	Remediation Strategy secured by planning condition, implemented by contractor, recorded in Verification Report.
Ground Conditions	Operation	Future site users coming into contact with soil or contamination materials with potential for human uptake.	All soft landscaping to be isolated from underlying Made Ground using marker layer, with any planting in suitable imported soils.	Remediation Strategy secured by planning condition, implemented by contractor, recorded in Verification Report.
Ground Conditions	Operation	Infiltration and promotion of leaching of contamination to groundwater (Principal Aquifer)	Carry out a Foundation Works Risk Assessment. Remove any gross contamination. Implement measures to minimise infiltration (including raising of site levels).	Remediation Strategy and CEMP secured by planning condition, implemented by contractor, recorded in Verification Report
Ground Conditions	Operation	Infiltration and promotion of leaching of contamination to surface waters (River Mersey, Port of Liverpool Dock System)	Remove gross contamination (the likely source of any leachate). Implement measures to minimise infiltration (including raising of site levels).	Remediation Strategy and CEMP secured by planning condition, implemented by contractor, recorded in Verification Report
Ground Conditions	Operation	Loss of flora and fauna due to root uptake of phytotoxic metals in Made Ground.	All soft landscaping to be isolated from underlying Made Ground using marker layer, with any planting in suitable imported soils.	Remediation Strategy and CEMP secured by planning condition, implemented by contractor, recorded in Verification Report
Ground Conditions	Operation	Direct contact (below ground concrete and water supply pipework)	Appropriate selection of concrete class and materials for water supply pipework (with agreement from water supply company).	Remediation Strategy secured by planning condition, implemented by contractor, recorded in Verification Report.

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
Ground Conditions	Operation	Gas migration to enclosed spaces with potential to accumulate to explosive concentrations.	Undertake ground gas monitoring of Dock Deposits to define the nature of the ground gas regime and design for any protection measures. Control of entry into any enclosed below ground spaces.	Remediation Strategy secured by planning condition, implemented by contractor, recorded in Verification Report.
Water Resources and Flooding	Demolition / Construction-Dock Infill	Migration of sediments into adjacent water bodies	Development and implementation of a Construction Environment Management Plan (CEMP) that considers the following measures: ■ Discharging water during the dock infilling from BMD to Sandon Half-Tide Dock (SHTD) has been agreed by Peel Ports. The dredged material/water mix will be pumped into BMD via a floating pipeline from a dredger moored in the Mersey. The spent water will be cleared of suspended material via stilling ponds within BMD, and finally through a temporary weir over which excess water will spill into SHTD. Whilst the vast majority of the suspended sediment will be captured in BMD to maximise the efficiency of the operation, some residual suspended material may be taken into SHTD. The following considerations have been made to prevent pollution during the infilling works: ■ The vessels used will be sea certified; ■ Method statements and plans will be in place by the appointed contractor to prevent a pollution incident from occurring. The method statement will need to contain full details of all pollution control measures and will be required in order to obtain the necessary consents and licences from the relevant stakeholders; and ■ The pipeline will be secure to ensure there are no spillages during pumping.	CEMP to be secured through planning condition and implemented by contractor.
Water Resources and Flooding	Demolition /Construction-Stadium Construction	Elevated sediment loads in surface water and dewatering of excavations	Development and implementation of a Construction Environment Management Plan (CEMP) that considers the following measures: ■ Soil gradients should be kept as shallow as possible to prevent large amounts of earth being washed away during periods of heavy rainfall. Areas which are exposed should be surfaced as soon as practicable. ■ Enforce tight control of site boundaries including minimal land clearance and restrictions on the use of machinery adjacent to water bodies. Bunding of stockpiles within 10 m of water bodies or drainage lines. ■ Wheel washing facilities should be provided at all entry and exits points. Water from wheel wash facilities must be contained and filtered in an appropriate manner to remove suspended solids before discharge into the on-site surface water sewerage network. ■ Capture runoff from site in perimeter cut off ditches and/or settlement tanks where possible. Any dewatering required from site excavations should be pumped into a settlement tank or lagoon and not discharge direct to a water body or the on-site surface water sewerage network. ■ Sediment should be removed from water pumped during any extractions required. Sediment should be removed prior to discharges to the surface water network through the use of a baffle tank system or equivalent. ■ Sediment/soils encountered during construction activities such as earthworks could be contaminated. This has an associated risk of mobilising pollutants, which could be released to surface waterbodies. The working practices that should be put in place to prevent and manage this issue are described in Chapter 18 Ground Conditions. ■ CEMP to include dust suppression measures such as dampening and wheel washing.	CEMP to be secured through planning condition and implemented by contractor.
Water Resources and Flooding	Demolition /Construction	Accidental release of hydrocarbons and oils into the on-site drainage system or directly to the neighbouring Docks	Development and implementation of a CEMP that considers the following measures: ■ Incorporation of interceptors where appropriate into the site drainage system at high risk areas, such as parking, unloading and refuelling areas, to remove hydrocarbons and oils from surface water prior to discharge. ■ Other measures including drip trays under equipment such as generators, and wheel washing facilities should also be implemented to minimise the risk of pollutants infiltrating groundwater or the surface water drainage network. ■ Emergency Response Plan to be prepared and implemented in the event of a spill. Measures such as spill containment kit to be strategically located around site particularly at high risk locations such as fuelling points and car parks.	CEMP to be secured through planning condition and implemented by contractor
Water Resources and Flooding	Demolition/ Construction	Accidental leaks and spillages of significant amounts of hazardous materials migrating into the on-site drainage system or directly to the neighbouring Docks and Surface Water Features	Development and implementation of a CEMP that considers the following measures: ■ Provision of storage facilities and tanks; conduct refuelling of machinery within bunded areas, which should not be located within 10m of water bodies or drainage lines. ■ Storage and bunded areas to be constructed of impervious floors and walls with the capacity for the contents of the storage tank and an additional ten per cent safety margin.	CEMP to be secured through planning condition and implemented by contractor

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
			■ As a remedial measure, spill containment equipment such as absorbent materials to be stored on site. ■ Mixing of construction materials, such as cement, will be conducted in designated areas located away from water bodies and drainage lines.	
Water Resources and Flooding	Demolition/ Construction	Dust and debris blowing into the Mersey Estuary, Docks and Surface Water Features	Apply dust management procedures typically implemented for air quality management issues, such as: ■ Damping down to suppress the creation of dust. Mitigation measures typically used for dust management are discussed in Chapter 8 Air Quality. ■ Implement good site practice, perimeter fences and tight control of materials and waste to minimise the risk of debris entering water bodies.	CEMP to be secured through planning condition and implemented by contractor
Water Resources and Flooding	Demolition/ Construction	Increased water demand during construction	All relevant contractors should investigate opportunities to minimise and reduce the use of water, such as: ■ Selection and specification of equipment; ■ Implementation of staff-based initiatives such as turning off taps, plant and equipment when not in use both onsite and within site offices; ■ Use of recycling water systems such as wheel washes, site toilets' handwash; and ■ Use of a rainwater harvesting system for use in equipment and vehicle washing.	CEMP to be secured through planning condition and implemented by contractor
Water Resources and Flooding	Demolition/ Construction	Flood risk to site workers during construction	■ Contractor to prepare a flood emergency and contingency plan including arrangements to make safe any static plant, move any mobile plant, and to evacuate site operatives in a flood risk emergency. ■ Construction workers should be made aware of risks associated with excess surface water caused by overland flows and standing water. For example, risks to excavations and damage to plant. ■ To minimise any risk from groundwater flooding during excavation of the site, cut levels should be limited to at least 0.5m above the groundwater level. Where this is not possible, dewatering and other groundwater control measures should be employed. Any such groundwater control measures will also require pollution control measures in accordance with EA guidance.	CEMP to be secured through planning condition and implemented by contractor
Water Resources and Flooding	Operation	Increased pressure on water service infrastructure: Supply	On -site potable water network will be provided for the site as part of the proposed development. This will be connected to the existing United Utilities network in Regents Road. Water efficiency measures that will reduce potable peak demand and subsequent foul flows including the following: ■ Cold water storage tanks provided to smooth out peak flow rates from the public main Low flow fittings: low flush toilets, spray taps, low flow showers and waterless urinals; ■ Efficient water supply: Leak detection, smart meters and pressure reduction The advantage of demand management is not only for reducing supply but also for minimising the volume of the foul drainage element to the combined sewer.	Through the development of potable water and foul water strategy between now and construction of the development
Water Resources and Flooding	Operation	Flood risk to site users	Flood warning: For areas of car parking and public realm below the Design Flood Level (DFL), due to heritage value of dock walls, and for a 15m wide strip of land adjacent to the River Mersey wall, there remains a residual risk of flooding despite the design interventions. Non-match day operations may continue within the Stadium which is protected from flooding, but events involving large number of visitors would be cancelled. A flood warning and emergency plan shall be prepared prior to occupation for the application site . The plan will include trigger points aligned with recorded live flood levels and/or rainfall predictions and the actions taken following the trigger points. The plan will include for the safe isolation of these specific areas. Flood resilient measures will be incorporated within the ground level of the stadium, east stairwells and lift lobbies, hydraulic tower, and at-grade car park and compounds located on the western quay, e.g. raising of sensitive equipment such as vehicle charging points. The DNO compound and OB kiosk are located outside the 15m wave risk zone and the transformers, switchroom, sensitive equipment of electric vehicle charging points, and the OB kiosk have been raised above 7.3m AOD to protect from water associated with wave overtopping that may penetrate the compound walls. Drainage is provided within the DNO compound to convey penetrated water volumes.	Flood Risk Assessment and preparation and acceptance of flood warning management plan
Terrestrial Ecology	Construction	Loss of habitat supporting qualifying/notifiable features of designated sites.	Provision of 2 floating pontoons in accordance with with Liverpool Waters SEMP (ARUP 2020) within Nelson Dock to the south of site. The specification of these is detailed in the Construction Management Plan (Appendix 4.1, ES Volume III).	Planning condition
Terrestrial Ecology	Construction	Breeding birds	Removal of vegetation outside of bird breeding season. Provision of alternative nesting habitat such as 2 floating rafts in surrounding dock network	Planning condition
Terrestrial Ecology	Construction	Wintering birds	Provision of 2 floating pontoons in Nelson Dock to the south of the application site	Planning condition

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
Terrestrial Ecology	Construction	Passage birds	Provision of 2 floating pontoons in Nelson Dock to the south of the application site	Planning condition
Terrestrial Ecology	Construction	Bats	Provision of alternative roost location subject to Bat Mitigation Class Licence. Supervision of works which affect roost space. Application for EPSL. Provision of additional roosts.	Planning condition
Terrestrial Ecology	Operation	Statutory Designated Sites (SPA/Ramsar and SSSI	Use of non-reflective glass or installation of patterning, fritting, UV glass or netting on exterior façade on the southern, northern and western elevation of the stadium to reduce transparency and reflective value of high risk glazed areas.	Planning condition
Aquatic Ecology	Construction	Risk of increased mortality to fish via habitat disturbance / increased suspended sediment concentration	Fish rescues and translocations will take place during construction to reduce fish mortality. The first will commence prior to raking to mitigate the associated risk from increased suspended sediment concentrations. A second will be undertaken following dock closure works. Methods will be agreed in advance with the relevant Statutory Nature Conservation Bodies (SNCBs) to target all known fish species including pouting, European eel and coal fish known to inhabit the dock. In addition, bubble curtains will be installed to deter fish away from the northern water channel adjacent to Sandon Half-Tide Dock. The bubble curtain and subsequent silt curtain will be in place until the permanent northern isolation structure is installed.	Planning condition
Aquatic Ecology	Construction	Risk from underwater noise and vibration to fish.	Selected construction approach such as all percussive piling activities taking place after the dock has been drained will mitigate the effects on fish from underwater noise and vibration.	Planning condition
Aquatic Ecology	Construction / Operation	Risk to fish and shellfish as well as marine mammals and benthic communities from environmentally harmful substances.	Selected construction approach such as adoption and implementation of a suitable Construction Environmental Management Plan (CEMP) and appropriate drainage systems to minimise risk of occurrence and to resolve any incidents quickly will mitigate risk.	Planning condition
Aquatic Ecology	Construction / Operation	Habitat Disturbance / Net Loss of Habitat for fish and benthic ecology	Biodiversity enhancements within newly created western channel to increase habitat complexity in the form of artificial cracks and crevices, achieved through the use of textured concrete cladding tiles fixed to the channel walls, increasing the substrate rugosity and providing enhanced surface textures and crevices for both mobile and sessile benthic fauna to establish. The bed of the channel may also be enhanced though the placement of rock substrate, although some soft substrate should also be retained to provide habitat for soft sediment infauna species. This will enhance overall food sources for a wide range of fish species that will remain within the Nelson Dock and Sandon Half-Tide Dock and within the new channel itself.	Planning condition
Aquatic Ecology	Construction	Risk to fish inhabiting the lower Mersey, particularly juvenile eel, from entrainment during infilling.	Abstraction will most likely need to adhere to the terms set out in an abstraction licence. These are likely to include consideration of the volume / rate of abstraction and seasonal occurrence. The extraction will be restricted to occur outside the peak seasonal arrival of elver within the lower Mersey Estuary. This will be variable year-on-year due to environmental perturbations but is likely to run between March and April Should that need to change, this would be consulted upon and agreed with the Environment Agency in advance	Planning condition
Aquatic Ecology	Construction	Risk to benthic ecology through net loss of habitat.	Opportunistic retention of mobile benthic fauna made during the fish recue will result in a small proportion of the benthos being translocated. Use of bubble curtains and silt curtain within the northern entrance to Bramley-Moore Dock will help prevent re-entry of marine life into Bramley-Moore Dock.	Planning condition
Aquatic Ecology	Construction	Risk to benthic ecology and water quality through release of contaminants.	Approximately two months of standby time will occur between the completion of raking operations and the infill of aggregate within Bramley-Moore Dock. This is to allow time for the re-suspended particulate (including remobilised contaminants) to settle back out of the water column.	Planning condition
Aquatic Ecology	Construction	Risk to benthic ecology via release of invasive or non-native species.	During the raking process, Bramley-Moore Dock will be isolated from the remainder of the dock network and the Mersey Estuary; this will prevent the inadvertent release of mobilised Invasive Non-Native Species (INNS) into adjacent areas and habitats through water transfer. In addition, approximately two months of standby time will occur between the completion of raking operations and the initial careful infill with aggregate.	Planning condition
Wind	Operation	Expected unsafe and uncomfortable wind conditions at ground/first floor level amenity areas at the western side of the stadium and the western quayside	In the context of both the existing and cumulative surrounds, a robust monitoring process, which will involve an individual (or several) monitoring the wind conditions and when certain trigger conditions are met, mobilising to restrict access to the ground floor public realm areas and also the top of the western terrace area. The triggers would be: 1. Forecast wind speeds above a certain threshold that would be determined through further analysis 2. Local wind speeds above a certain threshold that would be determined through further analysis If either of these trigger conditions are met, the terrace level amenity spaces would be closed to pedestrians. This monitoring strategy would require in order to determine:	Planning Condition

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
			3. An appropriate location for anemometers 4. The appropriate wind speed threshold to close restricted areas Additionally, the applicant and its design team will be required to develop a strategy: 5. To control how access will be restricted to this area (via the porous gates proposed within the three openings in the west terrace steps and the north and south entrances to west terrace) 6. Define who will be monitoring the wind speeds 7. Define who will be responsible for closing/opening restricted areas With this system in place the ground floor public realm areas (by the water channel in front of the west terrace steps), the top of the west terrace and the western quayside will only be accessible to the general public when wind conditions are safe and suitable for sitting or standing use. In undertaking this piece of work, a good understanding of how many days in each year that these would need to be closed off for can be established.	
Lighting	Construction	Lighting associated with dock infill, demolition and other construction works on sensitive receptors surrounding the proposed development site during the construction phase	The Construction Management Plan for the project produced by Laing O'Rourke states the following with regards to lighting; "All site lighting will be LED energy efficient and kept low level and angled to point into the site. Lighting will be switched off outside of working hours" Lighting effects associated with the construction phase will be mitigated by implementing good practice measures across the Site including implementing a CEMP. Measures to be implemented include but not limited to: ■ specified working hours, uses of lighting, locations of floodlights; ■ lighting to be switched off unless specifically needed; and ■ barriers to be erected to shield adjacent receptors where appropriate. All on Site light installations will be positioned sensitively and targeted away from nearby receptors as identified above. Glare from floodlighting will be minimised by positioning lights to less than 70 degrees from the vertical uplift and will be directed into the Site. This will reduce upward light spill and subsequently reduce the impact on the Dark Sky environment. Further Construction mitigation measures can be found within the lighting technical report.	CEMP, secured by planning condition, implemented by the contractor.
Lighting	Operation	Lighting during post-curfew periods (after 23:00) on Liverpool Waters scheme	Car park/ public realm lighting at the closest point to the committed Liverpool Waters would be turned off during post-curfew event conditions (after 23:00) to comply with relevant Institution of Lighting Professionals (ILP) environmental zone limits at committed receptors at Liverpool Waters.	Implemented into Lighting management once operational
Built Heritage	Construction	Protection of listed structures on site	Preparation of a Conservation Management Plan to detail the protection of the heritage assets and features of the site during construction, including procedures in areas of contamination and for vehicle movements	Planning Condition /Listed Building Consent
Built Heritage	Construction	Protection of listed structures on site	All listed structures, including the hydraulic tower and any dock walls, will be protected from damage during demolition and construction, with hoardings attached where appropriate to prevent any damage. Where agreed with Liverpool City Council and Historic England, removal of heritage assets will be undertaken for safe storage and later reuse.	Listed Building Consent
Built Heritage	Construction	Loss of elements of heritage assets e.g. capstans/bollards that form part of Bramley-Moore Dock	Ahead of demolition, any heritage assets designated for reuse will carefully be removed and either stored safely on site, where they will be stored ready for reuse later in the project or sent for appropriate restoration. The majority of historically important artefacts will be retained in situ or relocated within the proposed public realm/landscaping scheme.	Listed Building Consent
Built Heritage	Construction	Loss of historic materials from creation of openings in Regent Road Dock Wall	Granite facing stones from removed wall portions to be stored safely on site. Subsequently, larger granite facing stones to be reinstated on the overhead 'lintel' portion rebuilt to hide the new structural supports. The metalwork will be fully encapsulated to side and top faces to hide the structural support. Sufficient ties will be provided between the stone and the supporting metal frame to ensure robustness. The remnant brick structure from the former Overhead Railway will be consolidated and repaired (only sections where the new openings are to be created are to be removed).	Listed Building Consent
Built Heritage	Construction	Installation of permanent northern isolation structure	A bored concrete solution is being proposed to permanently isolate Bramley-Moore Dock from the northern waterbodies. Two pile walls are being proposed which will be formed by constructing a series of reinforced concrete piles in the 'dry' water channel to the south of a temporary isolation structure, that interlock to form a water tight barrier. Eight pipes will be cast in between the two rows of piles at identical levels to the existing southern isolation structure to enable the exchange of dock water to the north and south. The approach has been undertaken at other Docks within the WHS/buffer zone (Nelson & Wellington Docks) and the exact methodology and interaction with the Dock Wall will be subject to Listed Building Consent.	Listed Building Consent

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
Built Heritage	Construction	Repair and re-use of Hydraulic Tower	A series of measures to make the building safe, carry out measured internal building survey, structural condition surveys and eventually remedial works	Planning condition and Listed Building Consent
Archaeology	Construction	Destruction of archaeological heritage asset (Receptor 13)	It is proposed that an archaeological watching brief is undertaken during stripping of historic surfaces.	Planning condition
Archaeology	Construction	Destruction of archaeological heritage asset (Receptor 15)	It is proposed that an archaeological watching brief is undertaken during pre-construction works.	Planning condition
Archaeology	Construction	Destruction of archaeological heritage asset (Receptor 16)	It is proposed that an archaeological watching brief is undertaken during stripping of historic surfaces.	Planning condition
Archaeology	Construction	Destruction of archaeological heritage asset (Receptor 17)	It is proposed that an archaeological watching brief is undertaken during pre-construction works.	Planning condition
Archaeology	Construction	Destruction of archaeological heritage asset (Receptor 18)	Evaluation trenching followed by full excavation if appropriate	Planning condition
Archaeology	Construction	Destruction of archaeological heritage asset (Receptor 19)	It is proposed that an archaeological watching brief is undertaken during stripping of historic surfaces.	Planning condition
Archaeology	Construction	Destruction of extant archaeological heritage asset (Receptor 23)	It is proposed that an archaeological watching brief is undertaken during pre-construction works.	Planning condition
Archaeology	Construction	Destruction of archaeological heritage asset (Receptor 25)	It is proposed that an archaeological watching brief is undertaken during pre-construction works.	Planning condition
Archaeology	Construction	Destruction of archaeological heritage asset (Receptor 28)	To record extant structure and full excavation if appropriate.	Planning condition
Archaeology	Construction	Destruction of archaeological heritage asset (Receptor 29)	Evaluation trenching followed by full excavation if appropriate	Planning condition
Archaeology	Construction	Destruction of archaeological heritage asset (Receptor 30)	It is proposed that an archaeological watching brief is undertaken during stripping of historic surfaces.	Planning condition
Socio-economics	Construction	Generation of construction employment	The Construction Management Plan (CMP) includes the following commitments: ■ Creating a pipeline of future talent (apprentices) where requirements will be reviewed for on-site, off-site and heritage; ■ Supporting economic growth (employment and supply chain); ■ Run programmes in partnership with EitC mirroring their programmes using construction as a 'pull', as they do with sport; ■ Being innovative by moving away from traditional commitment to just numbers, i.e. work experience, school visits, combining these into meaningful and structured programmes where benefits can be seen; and ■ Supporting adults on EitC programmes to the jobs market.	Planning condition

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

22.3 RESIDUAL EFFECTS SUMMARY

The residual effects are summarised in the following tables below:

- Proposed Development Scenario: **Table 22.2**;
- Proposed Development + Liverpool Water Scenario: **Table 22.3**; and
- Proposed Development + Liverpool Water + Cumulative Schemes Scenario: **Table 22.4**

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

Table 22.2
Proposed Development Scenario: Summary of Residual Effects

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Transport	Construction	Vehicles through the area, pedestrians and cyclists: Existing	**Road Safety** On account of the relatively modest traffic generation of the construction phase compared to the operational phase it is not expected there would be a material change to traffic generation through the day and therefore the pre-mitigation traffic generation and impact.	Negligible	Adv	ST	D	T	R
Transport	Construction	Vehicles through the network: Existing	**Vehicle Delay** It is expected that the implementation of the Construction Management Plan will help reduce traffic impact of the construction phase in terms of HGV impact and the encouragement of staff to travel sustainably. On account of the relatively modest traffic generation of the construction phase compared to the operational phase it is not expected there would be a material difference to the pre-mitigation traffic generation and impact.	Negligible	Adv	ST	D	T	R
Transport	Construction	Pedestrians: Existing	**Severance, Pedestrian Delay** It is expected that the implementation of the Construction Management Plan will help reduce traffic impact of the construction phase in terms of HGV impact and the encouragement of staff to travel sustainably. On account of the relatively modest traffic generation of the construction phase compared to the operational phase it is not expected there would be a material difference to the pre-mitigation traffic generation and impact.	Negligible	Adv	ST	D	T	R
Transport	Construction	Pedestrians: Existing	**Pedestrian Amenity** Although there is potential for the Construction Management Plan to potentially restrict vehicle movements to certain parts of the day where practical to reduce impact, it is considered that the absolute volume of HGV construction traffic would not materially change. On account of this and the likely routes construction vehicles will take it is not expected there would be a material change to the pre-mitigation impact.	Minor	Adv	ST	D	T	R
Transport	Operation: Non match day/ non-event day	Vehicles through the area, pedestrians and cyclists: Both existing and proposed	**Road Safety** It is expected that the implementation of the Framework Travel Plan will help reduce traffic impact of the operational phase in terms of traffic generation. However, the majority of traffic to be generated by the development is likely to be from visitors / customers on non-match / non-event days. To ensure a robust assessment is undertaken it is considered that the post-mitigation traffic generation, and therefore impact will be the same as the pre-mitigation.	Negligible	Adv	LT	D	P	R
Transport	Operation: Non match day/ non-event day	Vehicles through the area	**Driver Delay** It is expected that the implementation of the Framework Travel Plan will help reduce traffic impact of the operational phase in terms of traffic generation. However, the majority of traffic to be generated by the development is likely to be from visitors / customers on non-match / non-event days the potential for a significant reduction in traffic is limited. To ensure a robust assessment is undertaken it is considered that the post-mitigation impact will be the same as the pre-mitigation.	Negligible	Adv	LT	D	P	R
Transport	Operation: Non match day/ non-event day	Pedestrians: Both existing and proposed.	**Severance, Pedestrian Delay and Pedestrian Amenity** It is expected that the implementation of the Framework Travel Plan will help reduce traffic impact of the operational phase in terms of traffic generation. However, the majority of traffic to be generated by the proposed development is likely to be from visitors / customers on non-match / non-event days. To ensure a robust assessment is undertaken it is considered that the post-mitigation traffic generation, and therefore impact will be the same as the pre-mitigation.	Negligible	Adv	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Transport	Operation: Match day/ event day	Transport network users: parking, bus, rail, taxi, pedestrians & cyclists.	**Operation and Safety** The implementation of the Transport Strategy and the Crowd Safety policies and measures means that vehicular access in the streets in the immediate vicinity of the site will be managed to provide more road space to pedestrians. Parking restrictions will be in place to prevent the local area being affected by match day / event day traffic. Shuttle buses will be in place encouraging the use of sustainable travel. Rail management measures will be in place as well as new taxi ranks and coach parking areas. It is considered that with these measures in place, in line with the findings of the TA there will be sufficient capacity on the transport network to accommodate demand without detriment to its operation or the safety of its users.	Minor	Adv	ST	D	T	R
Transport	Operation: Match day/ event day	Pedestrians and Cyclists at Nelson Dock	With mitigation in place (Transport Strategy and the Crowd Safety policies) pedestrian access to and from Regent Road will be maintained. At the busiest times in terms of crowds it is expected that cyclists will need to dismount on Regent Road for a distance however alternative similar routes are available on Great Howard Street and routes internal to Liverpool Waters.	Negligible	Adv	ST	D	T	R
Transport	Operation: Match day/ event day	Vehicles at Nelson Dock	With mitigation in place (Transport Strategy and the Crowd Safety policies) vehicular access to and from Nelson Dock will be maintained to Regent Road where a one-way circulation system will be in operation. A pass system will be implemented where only residents and employees are permitted access to the traffic restricted areas. Although access is still permitted vehicles will not have access and egress from all directions and some diversion to their normal route will be needed.	Negligible	Adv	ST	D	T	R
Transport	Operation: Match day/ event day	Pedestrians: Existing and proposed	**Crowd Disaster & Violence** With mitigation in place (Transport Strategy and the Crowd Safety policies) crowds will move through a managed environment with police and crowd and traffic marshals controlling traffic & pedestrian movement and reducing risk of disaster. With these measures in place it is demonstrated that there are sufficient measures and controls in place that would effectively manage the risk of crowd disaster or violence occurring and mitigate the impact should such an event occur.	Minor	Adv	ST	D	T	R
Air Quality	Construction	All Receptors within 350m of the site	Effects from dust associated with demolition, construction, earthworks and trackout.	Negligible	ADV	ST	IND	T	R
Air Quality	Construction	R1-15	Air pollutant emissions from construction traffic	Negligible	ADV	ST	D	T	R
Air Quality	Operation	R1-15	Potential effects of increased NO_2 concentrations on the surrounding road network associated with the increased vehicle movements.	Negligible	ADV	LT	D	P	R
Air Quality	Operation	R1-15	Potential effects of increased PM_{10} concentrations on the surrounding road network associated with the increased vehicle movements.	Negligible	ADV	LT	D	P	R
Air Quality	Operation	R1-15	Potential effects of increased $PM_{2.5}$ concentrations on the surrounding road network associated with the increased vehicle movements.	Negligible	ADV	LT	D	P	R
Air Quality	Operation	ST1-6	Potential effects of increased NO_2 concentrations on the surrounding road network associated with the increased vehicle movements.	Negligible	ADV	LT	D	P	R
Air Quality	Operation	Surrounding Receptors	NO_2 emissions from proposed buildings	Negligible	ADV	LT	D	P	R
Noise & Vibration	Construction	R01-R11	Noise associated with dock infill, demolition and other construction works on sensitive receptors surrounding the proposed development site during the construction phase	Minor	ADV	ST	IND	T	R
Noise & Vibration	Operation – Traffic (Short-term 2023)	TR01-TR08	Noise associated with increased vehicle movements	Minor	ADV	ST	D	P	R
Noise & Vibration	Operation – Traffic (Short-term 2023)	TR09-TR10	Noise associated with increased vehicle movements	Moderate	ADV	ST	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Noise & Vibration	Operation – Traffic (Short-term 2028)	TR01-TR09	Noise associated with increased vehicle movements	Minor	ADV	ST	D	P	R
Noise & Vibration	Operation – Traffic (Short-term 2028)	TR10	Noise associated with increased vehicle movements	Moderate	ADV	ST	D	P	R
Noise & Vibration	Operation –Traffic (Long-term 2023/2028)	TR01-TR8, TR10	Noise associated with increased vehicle movements	Minor	ADV	LT	D	P	R
Noise & Vibration	Operation –Traffic (Long-term 2023/2028)	TR09	Noise associated with increased vehicle movements	Negligible	ADV	LT	D	P	R
Noise & Vibration	Operation – Stadium Scenario 1 Noise Intrusion	R01-R05, R07-R10	Noise associated with matchday operations prior to kick-off: crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system	Minor	ADV	LT	D	P	R
Noise & Vibration	Operation – Stadium Scenario 1 Noise Intrusion	R06	Noise associated with matchday operations prior to kick-off: crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system	Negligible	ADV	LT	D	P	R
Noise & Vibration	Operation – Stadium Scenario 1 Noise Intrusion	R11	Noise associated with matchday operations prior to kick-off: crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system	Moderate	ADV	LT	D	P	R
Noise & Vibration	Operation – Stadium Scenario 2 Noise Intrusion	R01-R10	Noise associated with matchday operations during match: crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium.	Minor	ADV	LT	D	P	R
Noise & Vibration	Operation – Stadium Scenario 2 Noise Intrusion	R11	Noise associated with matchday operations during match: crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium.	Moderate	ADV	LT	D	P	R
Noise & Vibration	Operation – Stadium Scenario 1 Change in Noise Level	R01-R05, R07-R11	Noise associated with matchday operations prior to kick-off: crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system	Minor	ADV	LT	D	P	R
Noise & Vibration	Operation – Stadium Scenario 1 Change in Noise Level	R06	Noise associated with matchday operations prior to kick-off: crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system	Negligible	ADV	LT	D	P	R
Noise & Vibration	Operation – Stadium Scenario 2 Change in Noise Level	R01-R05, R07-R11	Noise associated with matchday operations during match: crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium.	Minor	ADV	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Noise & Vibration	Operation – Stadium Scenario 2 Change in Noise Level	R06	Noise associated with matchday operations during match: crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium.	Negligible	ADV	LT	D	P	R
Noise & Vibration	Operation – Stadium Concert	R01-R05, R07-R11	Noise associated with non-football events, such as music noise levels from concerts at the proposed stadium	Minor	ADV	LT	D	P	R
Noise & Vibration	Operation – Stadium Concert	R06	Noise associated with non-football events, such as music noise levels from concerts at the proposed stadium	Negligible	ADV	LT	D	P	R
Ground Conditions	Construction	Construction / Maintenance Workers	There is a potential for construction workers involved in any earthworks (on the dock wharves) to come into contact with soil or contaminated materials by ingestion, inhalation and/or dermal contact with contaminated soils.These have the potential to cause short term (acute) or long term (chronic) adverse effects on human health. Implementation of appropriate health, safety and hygiene regime (to include PPE and welfare provisions) shall mitigate this effect.	Negligible	ADV	ST	D	T	IRR
Ground Conditions	Construction	Construction / Maintenance Workers	There is a potential for construction workers engaged in clearance / raking of BMD to come into contact with contaminated soils e.g. in the event of stockpiling. Exposure by ingestion, inhalation and/or dermal contact with contaminated soils. These have the potential to cause short term (acute) or long term (chronic) adverse effects on human health. Implementation of appropriate health, safety and hygiene regime (to include PPE and welfare provisions) shall mitigate this effect.	Negligible	ADV	ST	D	T	IRR
Ground Conditions	Construction	Site Neighbours	Ground disturbance during the enabling and construction works has the potential to create new pathways for contaminants to migrate to adjacent land via air (e.g. as wind-borne dusts) with the potential to cause short term (acute) or long term (chronic) adverse effects on human health. Implementation of good construction practice and dust suppression measures shall mitigate this effect.	Negligible	ADV	ST	IND	T	IRR
Ground Conditions	Construction	Principal Aquifer	Potential for increased infiltration and promotion of leaching. Migration of contamination via preferential pathways and/or permeable strata have the potential to cause pollution to the Principal Aquifer. Implementation of a FWRA, removal of gross contamination and adoption of a measures defined in a CEMP shall mitigate this effect.	Negligible	ADV	ST	IND	T	R
Ground Conditions	Construction	River Mersey	Potential for increased infiltration and promotion of leaching. Migration of contamination via preferential pathways and/or permeable strata have the potential to cause pollution to the River Mersey. Removal of gross contamination and adoption of measured defined in a CEMP shall mitigate this.	Negligible	ADV	ST	IND	T	R
Ground Conditions	Construction	Port of Liverpool Dock System	Potential for increased infiltration and promotion of leaching. Migration of contamination via preferential pathways and/or permeable strata have the potential to cause pollution to the Port of Liverpool Dock System. Removal of gross contamination and adoption of measured defined in a CEMP shall mitigate this.	Negligible	ADV	ST	IND	T	R
Ground Conditions	Construction	Port of Liverpool Dock System	During raking of BMD, Dock Deposits will be disturbed with potential for mobilisation of contamination with impact to water quality of Port of Liverpool Dock System. Adopting a methodology agreed with the MMO and undertaking a separate assessment of risk to water quality as necessary shall mitigate this effect.	Negligible	ADV	ST	D	T	R
Ground Conditions	Construction	Flora and Fauna	Current vegetation will be removed as a result of enabling and construction activities. Majority of BMD to be infilled but with a channel constructed to maintain connectivity with wider Port of Liverpool Dock System. As part of enabling works, the sensitive removal and relocation of marine life within the dock will be undertaken will mitigate this effect.	Negligible	ADV	ST	IND	P	R
Ground Conditions	Operation	Future Site Users	Vapour / gas migration to enclosed spaces with potential to accumulate to concentrations with toxic / hazardous affect future site users. Undertaking ground gas monitoring of Dock Deposits to define the nature of the ground gas regime with design of any suitable protection measures, along with removal of areas of contamination with potential to generate vapours shall mitigate this.	Negligible	BEN	LT	IND	P	IRR

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Ground Conditions	Operation	Future Site Users	Future site users coming into contact with soil or contamination materials with potential for human uptake via ingestion, inhalation and / or dermal contact with contaminated soils. All soft landscaping to be isolated from underlying Made Ground using marker layer, with any planting in suitable imported soils, shall mitigate this effect.	Negligible	BEN	LT	D	P	IRR
Ground Conditions	Operation	Principle Aquifer	Potential for infiltration and promotion of leaching. Migration of contamination via preferential pathways and/or permeable strata have the potential to cause pollution to the Principal Aquifer. Implementation of a FWRA, removal of gross contamination, appropriate site drainage and measures to reduce infiltration (including raising of site levels) shall mitigate this.	Negligible	BEN	LT	IND	T	R
Ground Conditions	Operation	River Mersey	Potential for infiltration and promotion of leaching. Migration of contamination via preferential pathways and/or permeable strata have the potential to cause pollution to the River Mersey. Removal of gross contamination, appropriate site drainage and measures to reduce infiltration (including raising of site levels) shall mitigate this.	Negligible	BEN	LT	IND	T	R
Ground Conditions	Operation	Port of Liverpool Dock System	Potential for infiltration and promotion of leaching. Migration of contamination via preferential pathways and/or permeable strata have the potential to cause pollution to the Port of Liverpool Dock System. Removal of gross contamination, appropriate site drainage and measures to reduce infiltration (including raising of site levels) shall mitigate this.	Negligible	BEN	LT	IND	T	R
Ground Conditions	Operation	Terrestrial Flora within Application Site	Potential for loss of flora due to root uptake of phytotoxic metals. All soft landscaping to be isolated from underlying Made Ground using marker layer, with any planting in suitable imported soils, shall mitigate this effect.	Negligible	BEN	LT	D	P	IRR
Ground Conditions	Operation	Built Environment	Sulphate attack on concrete building foundations and permeation of water supply pipework both via direct contact with contaminated soils. Potential to damage building fabric and structure. Appropriate design of below ground concrete and water supply pipework shall mitigate this effect.	Negligible	BEN	LT	D	P	IRR
Ground Conditions	Operation	Building Structures	Potential for the migration of hazardous ground gas and for its accumulation to explosive concentrations in any enclosed spaces. Undertaking ground gas monitoring of Dock Deposits to define the nature of the ground gas regime and design for any protection measures, along with control of entry into any enclosed below ground spaces shall mitigate this.	Negligible	BEN	LT	IND	P	IRR
Water Resources	Demolition/ Construction – Raking of Dock Deposits	Nelson Dock	Disturbance of sediments, possibly contaminated at a low level (less than CEFAS Level 2), due to raking of BMD bed.	Minor	ADV	ST	IND	T	R
Water Resources	Demolition/ Construction – Raking of Dock Deposits	SHTD	Disturbance of sediments, possibly contaminated at a low level (less than CEFAS Level 2), due to raking of BMD bed.	Minor	ADV	ST	IND	T	R
Water Resources	Demolition/ Construction – BMD Wall Remedial Works	Nelson Dock	Migration of hazardous material or debris from BMD to ND	Negligible	N/A	ST	IND	T	R
Water Resources	Demolition/ Construction – BMD Wall Remedial Works	SHTD	Migration of hazardous material or debris from BMD to SHTD	Negligible	N/A	ST	IND	T	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Water Resources	Demolition/ Construction – Dock Isolation Structure (north and south)	Nelson Dock	Disconnection of north/south hydraulic connection BMD Dock	Minor	ADV	LT	D	P	R
	Demolition/ Construction – Dock Isolation Structure (north and south)	SHTD	Disconnection of north/south hydraulic connection SHTD Dock	Minor	ADV	LT	D	P	R
Water Resources	Demolition/ Construction – Dock Infill	Nelson Dock	Possible migration of infilling material by wind or run-off into Nelson dock	Negligible	N/A	ST	IND	T	R
Water Resources	Demolition/ Construction – Dock Infill	SHTD	Migration of fines suspended sediment in excess water pumped into SHTD	Minor	ADV	ST	IND	T	R
Water Resources	Demolition/ Construction – Dock Infill	River Mersey	Possible migration of infilling material by wind or run-off into Mersey	Negligible	N/A	ST	IND	T	R
Water Resources	Demolition/ Construction – Stadium Construction	Nelson Dock	Migration of hazardous material or debris from BMD to ND	Negligible	N/A	ST	IND	T	R
Water Resources	Demolition/ Construction – Stadium Construction	SHTD	Migration of hazardous material or debris from BMD to ND	Negligible	N/A	ST	IND	T	R
Water Resources	Demolition/ Construction – Stadium Construction	River Mersey	Migration of hazardous material or debris from BMD to Mersey	Negligible	N/A	ST	IND	T	R
Water Resources	Demolition/ Construction	Water services infrastructure: Supply	Increased water demand	Negligible	N/A	ST	D	T	R
Water Resources	Demolition/ Construction	Water services infrastructure: Surface Water Capacity	Increased sediment loads. Could block and clog the existing public drainage network Dewatering of excavations.	Negligible	N/A	ST	IND	T	R
Water Resources	Demolition/ Construction	Site user	Flood risk to site workers	Negligible	N/A	ST	IND	T	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Water Resources	Demolition/ Construction	Site Neighbours	Flood risk to site neighbours	Negligible	N/A	ST	IND	T	R
Water Resources	Operation	Neighbouring water bodies	Pollutants contained in surface water runoff contaminating water bodies	Negligible	N/A	LT	IND	P	R
Water Resources	Operation	Water services infrastructure: Supply	Increased potable water demand	Negligible	N/A	LT	D	P	R
Water Resources	Operation	Water services infrastructure: Foul Water Capacity	Increased foul water drainage demand	Negligible	N/A	LT	D	P	R
Water Resources	Operation	Site users: Flood Risk & Wave Overtopping	Flood risk to site users.	Negligible	N/A	LT	IND	P	R
Water Resources	Operation	Site neighbours	Flood risk to site neighbours on Regents Road.	Negligible	N/A	LT	IND	P	R
Terrestrial Ecology	Construction	International Designated Sites (SPA/Ramsar)	Permanent loss of functionally linked habitat used by qualifying features of designated sites	Not significant	ADV	LT	D	P	IRR
Terrestrial Ecology	Construction	International Designated Sites (SPA/Ramsar)	Habitat degradation - water quality impacts as a result of pollution events	Not significant	ADV	LT	D	P	IRR
Terrestrial Ecology	Construction	International Designated Sites (SPA/Ramsar)	Disturbance of qualifying features – visual and auditory disturbance	Not significant	ADV	LT	D	P	IRR
Terrestrial Ecology	Construction	International Designated Sites (SPA/Ramsar)	Mobilisation of contaminated material via surface water run off into designated sites or functionally linked habitat	Not significant	ADV	LT	D	P	IRR
Terrestrial Ecology	Construction	International Designated Sites (SPA/Ramsar)	Habitat degradation – effects on water quality during dock infill preparation – raking of dock prior to infill (decrease in dissolved oxygen)	Not significant	ADV	LT	D	P	IRR
Terrestrial Ecology	Construction	International Designated Sites (SPA/Ramsar)	Habitat degradation - deposition of waste/litter	Not significant	ADV	LT	D	P	IRR
Terrestrial Ecology	Construction	Nationally Designated Sites (SSSI)	Permanent loss of functionally linked habitat used by notifiable features of designated sites	Not significant	ADV	LT	D	P	IRR
Terrestrial Ecology	Construction	Breeding birds	Permanent loss of foraging and potential nesting habitat used by breeding bird assemblage on site	Not significant	ADV	LT	D	P	IRR
Terrestrial Ecology	Construction	Wintering birds	Permanent loss of foraging and wintering habitat used by wintering bird assemblage on site	Not significant	ADV	LT	D	P	IRR
Terrestrial Ecology	Construction	Passage Birds	Permanent loss of foraging and resting habitat used by passage bird assemblage on site	Not significant	ADV	LT	D	P	IRR
Terrestrial Ecology	Construction	Bats	Permanent loss of roosting habitat	Not significant	ADV	LT	D	P	IRR
Terrestrial Ecology	Operation	Statutory Designated Sites (SPA/Ramsar and SSSI)	Potential bird strike affecting qualifying/notifiable feature	Not significant	ADV	LT	D	P	IRR

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Terrestrial Ecology	Operation	Statutory Designated Sites (SPA/Ramsar and SSSI)	Habitat degradation - deposition of waste/litter	Not significant	ADV	LT	D	P	IRR
Aquatic Ecology	Construction	Fish and Shellfish	Habitat Disturbance - Will occur as a result of the raking process and gradual infilling with aggregate. The spatial extent of the habitat disturbance will be limited to within Bramley-Moore Dock. Species of conservation importance and other species present will be targeted for removal via proposed mitigation.	Negligible	ADV	LT	D	P	IRR
Aquatic Ecology	Construction	Fish and Shellfish	Increased Suspended Sediment Concentration (SSC) - Will occur as a result of the raking process and during infill of Bramley-Moore Dock with marine aggregate. Raking will be a singular event occurring early and over a very short timeframe within the proposed construction window. Species of conservation importance and other species present will be targeted for removal via proposed mitigation prior to raking occurring. In addition, mitigation measures are in place to monitor and enhance as needed the water quality in adjacent water bodies.	Negligible	ADV	ST	D	T	R
Aquatic Ecology	Construction	Fish and Shellfish	Underwater Noise and Vibration - A degree of underwater noise and vibration will emanate from the TSHD. Aggregate pumping will be episodic, singular events occurring relatively early in the three-year construction phase but will be of similar magnitude to that resulting from existing vessel traffic in the region. The introduction from construction works within and surrounding BMD will be largely mitigated through the proposed approach to pilling.	Negligible	ADV	ST	D	T	R
Aquatic Ecology	Construction	Fish and Shellfish	Changes to Hydrodynamic Regime - Temporary habitat changes may occur as a result of preventing water exchange between Bramley-Moore Dock and Nelson Dock during the construction phase. Water quality effects within Nelson Dock such as water stagnation and reduced dissolved oxygen content as well as foul odour, although these effects are anticipated to be minimal, given the fact that Nelson Dock receives most of its input from southern waterbodies.	Negligible	ADV	ST	IND	T	R
Aquatic Ecology	Construction	Fish and Shellfish	Entrainment - During the infill process it will be necessary to pump aggregate from the TSHD, moored within the Mersey, to Bramley-Moor Dock via a floating pipeline. The greatest perceived risk would be to elvers that will be ubiquitously distributed throughout the channel and do not possess the ability to swim upon first arrival (February to June peaking between March and April) within the lower Mersey. Abstraction to adhere to the terms set out in an abstraction licence and are likely to include volume / rate of abstraction and seasonal occurrence. Abstraction should be restricted to avoid the peak seasonal arrival of elver within the lower Mersey Estuary. This will be variable year-on-year due to environmental perturbations – but is assumed to be March to April inclusive – abstraction is therefore timed to take place outside of this period – should that change, this would be consulted upon and agreed with the Environment Agency in advance.	Minor	ADV	ST	D	T	R
Aquatic Ecology	Construction	Water Quality	Release of Contaminants - The raking process will mobilise sediments and result in the potential release of sediment bound contaminants and the partitioning of these to aqueous phases i.e., increase dissolved concentrations within the water column. The release of sediment bound organic materials and chemicals will also temporarily increase the Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) within the water column. Effects on fish and some mobile benthic fauna within BMD will be mitigated through their removal and translocation pre-raking. Effects on adjacent waterbodies will be mitigated through the retention of suspended materials within BMD via the bubble curtain and silt curtain and a period of approximately two months of standby time between completion of raking operations and the infill of aggregate within Bramley-Moore Dock.	Negligible	ADV	ST	D	T	R
Aquatic Ecology	Construction	Benthic Ecology	Any INNS dislodged from the dock wall or excavated from the substrate during raking may consequently become suspended and entrained within the water inside Bramley-Moore Dock. During the raking process, Bramley-Moore Dock will be isolated from the remainder of the dock network and the Mersey Estuary due to the presence of the northern bubble curtain and silt barrier and southern isolator structures. This will prevent the inadvertent release of mobilised INNS into adjacent areas and habitats through water transfer. In addition, approximately two months of standby time will occur between the completion of raking operations and the initial careful infill with aggregate.	Negligible	ADV	LT	IND	P	IRR

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Aquatic Ecology	Construction	Fish and Shellfish, Benthic Ecology and Marine Mammals	Unplanned Accidental Spill and Release of Environmentally Harmful Substance – Harmful substances such as fuel, oil and lubricants, could potentially contaminate the marine environment. The severity of this effect on receptors depends upon the quantities and nature of the spillage / release, the dilution and dispersal properties of the receiving waters and the bioavailability of the contaminant to identified species. The risk and severity of any release of harmful substances such as fuel, oil and lubricants, that could potentially contaminate the marine environment would be mitigated though the adoption and implementation of a suitable Construction Environmental Monitoring Plan (CEMP) and appropriate drainage systems to minimise risk of occurrence and to resolve any incidents quickly will mitigate risk.	Negligible	ADV	ST	IND	T	R
Aquatic Ecology	Operation	Fish and Shellfish, Benthic Ecology and Marine Mammals	Unplanned Accidental Spill and Release of Environmentally Harmful Substance – Harmful substances such as fuel, oil and lubricants, could potentially contaminate the marine environment. The severity of this effect on receptors depends upon the quantities and nature of the spillage / release, the dilution and dispersal properties of the receiving waters and the bioavailability of the contaminant to identified species. The risk and severity of any release of harmful substances such as fuel, oil and lubricants, that could potentially contaminate the marine environment would be mitigated though the adoption and implementation of a suitable Construction Environmental Monitoring Plan (CEMP) and appropriate drainage systems to minimise risk of occurrence and to resolve any incidents quickly will mitigate risk.	Negligible	ADV	ST	IND	T	R
Aquatic Ecology	Operation	Fish and Shellfish	Net loss of habitat - An overall permanent net loss of fish and shellfish habitat will result because of the project. It will not be possible to directly mitigate this habitat loss due to the plans to convert the aquatic environments of Bramley-Moore Dock into a terrestrial environment. All existing fish and shellfish populations within Bramley-Moore Dock will either be lost or permanently displaced or rescued and translocated into the adjoining dock network or lower Mersey. Fish rescue and translocation is anticipated to removed protected species such as European eel, reducing the nature conservation value of any remaining fish assemblage prior to infill.	Negligible	ADV	LT	D	P	IRR
Aquatic Ecology	Operation	Fish and Shellfish	Light pollution / overshadowing - fish communities inhabiting the area immediately adjacent to the development (within areas of artificial illumination / shade) may incur alterations to predator prey relationships.	Negligible	ADV	LT	D	P	IRR
Aquatic Ecology	Operation	Benthic Ecology	Habitat loss - habitat loss is considered a residual effect which cannot be completely mitigated against during construction and operations.	Negligible	ADV	LT	D	P	IRR
Wind	Operation	Area A: thoroughfares	Wind comfort conditions that are windier/calmer than the target comfort conditions	Moderate Beneficial to Minor Adverse	BEN/ADV	LT	D	P	R
Wind	Operation	Area B: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Minor Beneficial	BEN	LT	D	P	R
Wind	Operation	Area B: entrances	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial	BEN	LT	D	P	R
Wind	Operation	Area C: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	Area C: entrances	Wind comfort conditions that are windier than the target comfort conditions	Minor Adverse		LT	D	P	R
Wind	Operation	Area D1: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	Area D1: Ground Level Amenity - Seating	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area D2: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Negligible	BEN	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Wind	Operation	Area E: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	Area F1: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	Area F2: thoroughfares	Wind comfort conditions that are windier/calmer than the target comfort conditions	Moderate Beneficial to Minor Adverse	BEN/ADV	LT	D	P	R
Wind	Operation	Area F2: Ground Level Amenity - Seating	Wind comfort conditions that are windier than the target comfort conditions	Negligible to Minor Adverse	ADV	LT	D	P	R
Wind	Operation	Area G: thoroughfares	Wind comfort conditions are suitable for the target comfort conditions (with access to be managed when trigger conditions met)	Minor Beneficial to Negligible	BEN/NEU	LT	D	P	R
Wind	Operation	Area H1: Ground Level Amenity Areas – Mixed Use	Wind comfort conditions that are windier than the target comfort conditions	Negligible to Minor Adverse	ADV	LT	D	P	R
Wind	Operation	Area H1: Ground Level Amenity Seating	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area H2: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	Area H2: entrances	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	Area I1: Ground Level Amenity Areas – Mixed Use	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area I1:Ground Level Amenity - Seating	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area I2: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial	BEN	LT	D	P	R
Wind	Operation	Area I2: entrances	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial	BEN	LT	D	P	R
Wind	Operation	Area J1: Ground Level Amenity Areas – Mixed Use	Wind comfort conditions that are windier than the target comfort conditions	Minor Adverse to Negligible	ADV	LT	D	P	R
Wind	Operation	Area J1: Ground Level Amenity - Seating	Wind comfort conditions that are windier than the target comfort conditions	Minor Adverse	ADV	LT	D	P	R
Wind	Operation	Area J2: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	Area J2: entrances	Wind comfort conditions that are windier/calmer than the target comfort conditions	Minor Beneficial to Minor Adverse	BEN/ADV	LT	D	P	R
Wind	Operation	Area K: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Negligible	BEN	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Wind	Operation	Area K: Ground Level Amenity - Seating	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area L: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	Area L: entrances	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial	BEN	LT	D	P	R
Wind	Operation	Area L: Ground Level Amenity - Seating	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area M: thoroughfares	Wind comfort conditions that are windier/calmer than the target comfort conditions	Moderate Beneficial to Minor Adverse	BEN/ADV	LT	D	P	R
Wind	Operation	Area M: Ground Level Amenity - Seating	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area N1: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	Area N2: entrances	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial	BEN	LT	D	P	R
Wind	Operation	Area N2: Ground Level Amenity Areas – Mixed Use	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area N2: Ground Level Amenity - Seating	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area O: entrances	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial	BEN	LT	D	P	R
Wind	Operation	Area O: Ground Level Amenity Areas – Mixed Use	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area O: Ground Level Amenity - Seating	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area P1: entrances	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial	BEN	LT	D	P	R
Wind	Operation	Area P1: Ground Level Amenity Areas – Mixed Use	Wind comfort conditions that are windier than for the target comfort conditions	Minor Adverse to Negligible	ADV/NEU	LT	D	P	R
Wind	Operation	Area P2: thoroughfares	Wind comfort conditions that are windier/calmer than the target comfort conditions	Moderate Beneficial to Minor adverse	BEN/ADV	LT	D	P	R
Wind	Operation	Top of Western Terrace: Ground Level Amenity Areas – Mixed Use & Seating	Wind comfort conditions are suitable for the target comfort conditions (with access to be managed when trigger conditions met)	Negligible	NEU	LT	D	P	R
Wind	Operation	UU1	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial to Negligible	BEN	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Wind	Operation	UU2	Wind comfort conditions that are windier/calmer than the target comfort conditions	Moderate Adverse to Minor Beneficial	BEN/ADV	LT	D	P	R
Wind	Operation	UU3	Wind comfort conditions that are windier/calmer than the target comfort conditions	Moderate Adverse to Minor Beneficial	BEN/ADV	LT	D	P	R
Wind	Operation	UU4	Wind comfort conditions that are windier/calmer than the target comfort conditions	Moderate Adverse to Moderate Beneficial	BEN/ADV	LT	D	P	R
Wind	Operation	RR1	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	RR2	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	RR3	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	RR4	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	ND1	Wind comfort conditions that are windier/calmer than the target comfort conditions	Minor Adverse to Minor Beneficial	BEN/ADV	LT	D	P	R
Wind	Operation	ND2	Wind comfort conditions that are windier/calmer than the target comfort conditions	Minor Adverse to Minor Beneficial	BEN/ADV	LT	D	P	R
Wind	Operation	Area in middle of Nelson Dock	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	32-33 Regent Road	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	62-63 Regent Road	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	32-33 Regent Road	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	62-63 Regent Road	Effects on internal sunlight levels	N/A	-	-	-	-	
Lighting	Operation	R1, R3, Eco 10-12, Eco 24-26	Event day light emissions	Negligible	ADV	LT	D	P	R
Lighting	Operation	R2, Eco 1-9, Eco 13-23, Eco 27-42.	Event day light emissions	Minor	ADV	LT	D	P	R
Lighting	Operation	R1-3, Eco 10-14, Eco 24-26, Eco 34-40	Non-event day light emissions	Negligible	ADV	LT	D	P	R
Lighting	Operation	Eco 1-9, Eco 15-23, Eco 27-33, Eco 41-42	Non-event day light emissions	Minor	ADV	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Construction	Bramley-Moore Dock waterbody and associated dock walls	Effects on townscape character	Moderate adverse: Significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Regent Road Dock Wall	Effects on townscape character	Moderate adverse: Not significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Hydraulic Engine House	Effects on townscape character	Moderate adverse: Significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Existing disused red brick industrial buildings	Effects on townscape character	Minor adverse: Not significant	ADV	ST	D	T	R
Townscape & Visual	Construction	NCA58 Merseyside Conurbation	Effects on townscape character	Negligible: Not significant	ADV	ST	D	T	R
Townscape & Visual	Construction	The Waterfront and Its Fringes City Centre Character Area	Effects on townscape character	Moderate adverse: Significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Main Office Area City Centre Character Area	Effects on townscape character	Moderate adverse: Not significant	ADV	ST	D	T	R
Townscape & Visual	Construction	WHS SPD Character Area 3 - Stanley Dock Conservation Area	Effects on townscape character	Major adverse: Significant	ADV	ST	D	T	R
Townscape & Visual	Construction	WHS SPD Character Area 4 – Castle Street Conservation Area	Effects on townscape character	Minor adverse: Not significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Residential Docks Townscape Character Area	Effects on townscape character	Minor adverse: Not significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Industrial Docks Townscape Character Area	Effects on townscape character	Minor adverse: Not significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Ten Streets and Wellington Park Townscape Character Area	Effects on townscape character	Moderate adverse: Not significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Vauxhall Residential Character Area	Effects on townscape character	Minor adverse: Not significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Kirkdale Residential Character Area	Effects on townscape character	Negligible: Not significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Everton Residential Character Area	Effects on townscape character	Negligible: Not significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Viewpoint 1. Melrose Road	Effects on view	Residential /Pedestrians /Cyclists – Minor adverse: Not significant	ADV	ST	IND	T	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
				Vehicular road users – Negligible: Not significant					
Townscape & Visual	Construction	Viewpoint 2. Commercial Road	Effects on view	Public Open Space Users /Pedestrians /Cyclists – Minor adverse: Not significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 3. Regent Road	Effects on view	Pedestrians /Cyclists – Moderate adverse: Significant Vehicular road users / People at place of work – Moderate adverse: Not Significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 4. Everton Valley/ St Domingo Road junction	Effects on view	Pedestrians /Cyclists – Minor adverse: Not significant Vehicular road users – Negligible: Not significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 5. Blackstone Street	Effects on view	Pedestrians /Cyclists/ Vehicular road users – Moderate adverse: Not Significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 6. Boundary Street	Effects on view	Pedestrians /Cyclists/ Vehicular road users – Minor adverse: Not significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 7. Everton Park	Effects on view	Public park users -Minor adverse: Not significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 8. Bascule Bridge	Effects on view	Pedestrians /Cyclists – Moderate adverse: Significant Vehicular road users – Moderate adverse: Not Significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 9. Waterloo Road	Effects on view	Pedestrians /Cyclists – Minor adverse: Not significant	ADV	ST	IND	T	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
				Vehicular road users – Minor adverse: Not significant					
Townscape & Visual	Construction	Viewpoint 10. Tunnel vent on Waterloo Road	Effects on view	Pedestrians /Cyclists – Minor adverse: Not significant Vehicular road users – Minor adverse: Not significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 11. Waterloo Warehouse/ Waterloo Road	Effects on view	Residential /Pedestrians /Cyclists – Minor adverse: Not significant Vehicular road users – Minor adverse: Not significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 12. Great Howard Street/ Old Hall Street junction	Effects on view	Pedestrians /Cyclists and Vehicular road users – Negligible: Not significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 13. Princes Parade	Effects on view	Pedestrians /Cyclists/Leisure Users and Vehicular road users Negligible: Not significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 14. Princes Dock	Effects on view	No effect - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 15. New Quay	Effects on view	Negligible: Not significant - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 16. Pier Head Ferry Terminal	Effects on view	No effect - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 17. Georges Pier Head	Effects on view	No effect - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 18. Pier Head Plaza	Effects on view	No effect- all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 19. Salthouse Quay	Effects on view	No effect- all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 20. Albert Dock	Effects on view	No effect- all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 21. Woodside Ferry Terminal	Effects on view	Minor adverse: Not significant- all receptors	ADV	ST	IND	T	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Construction	Viewpoint 22. Seacombe Ferry Terminal	Effects on view	Minor adverse: Not significant- all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 23. Wallasey Town Hall	Effects on view	Moderate adverse: Not significant - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 24. Magazine Promenade	Effects on view	Minor adverse: Not Significant - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 25. Fort Perch Rock	Effects on view	Minor adverse: Not significant - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 26. Trafalgar Dock	Effects on view	Moderate adverse: Significant - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 27. South-Western edge of Trafalgar Dock	Effects on view	Moderate adverse: Significant - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 28. Alexandra Tower	Effects on view	Minor adverse: Not significant - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 29. Bidston Hill	Effects on view	Minor adverse: Not Significant - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 30. Anglican Cathedral	Effects on view	No effect - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 31. Metropolitan Cathedral of Christ the King	Effects on view	No effect - all receptors	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 32. Holt Hill	Effects on view	Residential /Pedestrians /Cyclists – Negligible: Not significant Vehicular road users – Negligible: Not significant	ADV	ST	IND	T	R
Townscape & Visual	Operation - All scenarios	Bramley-Moore Dock waterbody and associated dock walls	Effects on townscape character	Major adverse: Significant	ADV	LT	D	P	R
Townscape & Visual	Operation - All scenarios	Regent Road Dock Wall	Effects on townscape character	Moderate adverse: Not significant	-	LT	D	P	R
Townscape & Visual	Operation – Day time non match day - Day time match day	Hydraulic Engine House	Effects on townscape character	Moderate beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation	Hydraulic Engine House	Effects on townscape character	Moderate beneficial: Significant	BEN	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
	– Night time non match day - Night time match day								
Townscape & Visual	Operation - All scenarios	Existing disused red brick industrial buildings	Effects on townscape character	Minor adverse: Not significant	-	LT	D	P	R
Townscape & Visual	Operation - Day time non match day - Day time match day	NCA58 Merseyside Conurbation	Effects on townscape character	Negligible: Not significant	-	LT	D	P	R
Townscape & Visual	Operation - Night time non match day - Night time match day	NCA58 Merseyside Conurbation	Effects on townscape character	Negligible: Not significant	-	LT	D	P	R
Townscape & Visual	Operation - Day time non match day	The Waterfront and Its Fringes City Centre Character Area	Effects on townscape character	Moderate beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time match day	The Waterfront and Its Fringes City Centre Character Area	Effects on townscape character	Moderate beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time non match day	The Waterfront and Its Fringes City Centre Character Area	Effects on townscape character	Moderate beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time match day	The Waterfront and Its Fringes City Centre Character Area	Effects on townscape character	Moderate beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time non match day	Main Office Area City Centre Character Area	Effects on townscape character	Moderate beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time match day	Main Office Area City Centre Character Area	Effects on townscape character	Moderate beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time non match day	Main Office Area City Centre Character Area	Effects on townscape character	Moderate beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time match day	Main Office Area City Centre Character Area	Effects on townscape character	Moderate beneficial: Not significant	BEN	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation - Day time non match day	WHS SPD Character Area 3 - Stanley Dock Conservation Area	Effects on townscape character	Major beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time match day	WHS SPD Character Area 3 - Stanley Dock Conservation Area	Effects on townscape character	Major beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time non match day	WHS SPD Character Area 3 - Stanley Dock Conservation Area	Effects on townscape character	Major beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time match day	WHS SPD Character Area 3 - Stanley Dock Conservation Area	Effects on townscape character	Major beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time non match day	WHS SPD Character Area 4 – Castle Street Conservation Area	Effects on townscape character	Minor beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time match day	WHS SPD Character Area 4 – Castle Street Conservation Area	Effects on townscape character	Minor beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time non match day	WHS SPD Character Area 4 – Castle Street Conservation Area	Effects on townscape character	Minor beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time match day	WHS SPD Character Area 4 – Castle Street Conservation Area	Effects on townscape character	Minor beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time non match day	Residential Docks Townscape Character Area	Effects on townscape character	Moderate beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time match day	Residential Docks Townscape Character Area	Effects on townscape character	Moderate beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time non match day	Residential Docks Townscape Character Area	Effects on townscape character	Minor beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time match day	Residential Docks Townscape Character Area	Effects on townscape character	Moderate beneficial: Significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time non match day	Industrial Docks Townscape Character Area	Effects on townscape character	Minor beneficial: Not significant	BEN	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation - Day time match day	Industrial Docks Townscape Character Area	Effects on townscape character	Minor beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time non match day	Industrial Docks Townscape Character Area	Effects on townscape character	Negligible: Not significant	-	LT	D	P	R
Townscape & Visual	Operation - Night time match day	Industrial Docks Townscape Character Area	Effects on townscape character	Minor beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time non match day	Ten Streets and Wellington Park Townscape Character Area	Effects on townscape character	Moderate beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time match day	Ten Streets and Wellington Park Townscape Character Area	Effects on townscape character	Moderate beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time non match day	Ten Streets and Wellington Park Townscape Character Area	Effects on townscape character	Minor beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Night time match day	Ten Streets and Wellington Park Townscape Character Area	Effects on townscape character	Moderate beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time non match day	Vauxhall Residential Character Area	Effects on townscape character	Minor beneficial: Not significant	BEN	LT	D	P	R
Townscape & Visual	Operation - Day time match day	Vauxhall Residential Character Area	Effects on townscape character	Minor adverse: Not significant	ADV	LT	D	P	R
Townscape & Visual	Operation - Night time non match day	Vauxhall Residential Character Area	Effects on townscape character	Minor adverse: Not significant	ADV	LT	D	P	R
Townscape & Visual	Operation - Night time match day	Vauxhall Residential Character Area	Effects on townscape character	Minor adverse: Not significant	ADV	LT	D	P	R
Townscape & Visual	Operation - Day time non match day	Kirkdale Residential Character Area	Effects on townscape character	Negligible: Not significant	-	LT	D	P	R
Townscape & Visual	Operation - Day time match day	Kirkdale Residential Character Area	Effects on townscape character	Negligible: Not significant	-	LT	D	P	R
Townscape & Visual	Operation - Night time non match day	Kirkdale Residential Character Area	Effects on townscape character	Negligible: Not significant	-	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation - Night time match day	Kirkdale Residential Character Area	Effects on townscape character	Negligible: Not significant	-	LT	D	P	R
Townscape & Visual	Operation - Day time non match day	Everton Residential Character Area	Effects on townscape character	Negligible: Not significant	-	LT	D	P	R
Townscape & Visual	Operation - Day time match day	Everton Residential Character Area	Effects on townscape character	Negligible: Not significant	-	LT	D	P	R
Townscape & Visual	Operation - Night time non match day	Everton Residential Character Area	Effects on townscape character	Negligible: Not significant	-	LT	D	P	R
Townscape & Visual	Operation - Night time match day	Everton Residential Character Area	Effects on townscape character	Negligible: Not significant	-	LT	D	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 1. Melrose Road	Effects on view	Residential /Pedestrians /Cyclists – Minor beneficial: Not significant Vehicular road users – Negligible: Not significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 1. Melrose Road	Effects on view	Residential /Pedestrians /Cyclists – Minor adverse: Not significant Vehicular road users – Negligible: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 1. Melrose Road	Effects on view	Residential /Pedestrians /Cyclists – Minor adverse: Not significant Vehicular road users – Negligible: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 1. Melrose Road	Effects on view	Residential /Pedestrians /Cyclists – Moderate adverse: Not significant Vehicular road users – Minor adverse: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 2. Commercial Road	Effects on view	Public Open Space Users /Pedestrians /Cyclists – Minor beneficial: Not significant	BEN	LT	IND	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation - Day time match day	Viewpoint 2. Commercial Road	Effects on view	Public Open Space Users /Pedestrians /Cyclists – Moderate adverse: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 2. Commercial Road	Effects on view	Public Open Space Users /Pedestrians /Cyclists – Minor adverse: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 2. Commercial Road	Effects on view	Public Open Space Users /Pedestrians /Cyclists – Moderate adverse: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 3. Regent Road	Effects on view	Pedestrians /Cyclists – Moderate beneficial: Significant Vehicular road users /People at place of work – Moderate beneficial: Not Significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 3. Regent Road	Effects on view	Pedestrians /Cyclists – Moderate adverse: Significant Vehicular road users /People at place of work – Moderate adverse: Significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 3. Regent Road	Effects on view	Pedestrians /Cyclists – Moderate adverse: Not Significant Vehicular road users /People at place of work – Moderate adverse: Not Significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 3. Regent Road	Effects on view	Pedestrians /Cyclists – Moderate adverse: Significant	ADV	LT	IND	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
				Vehicular road users /People at place of work – Moderate adverse: Significant					
Townscape & Visual	Operation - Day time non match day	Viewpoint 4. Everton Valley/ St Domingo Road junction	Effects on view	Pedestrians /Cyclists – Minor adverse: Not significant Vehicular road users – Negligible: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 4. Everton Valley/ St Domingo Road junction	Effects on view	Pedestrians /Cyclists – Minor adverse: Not significant Vehicular road users – Minor adverse: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	4. Everton Valley/ St Domingo Road junction	Effects on view	Pedestrians /Cyclists – Minor adverse: Not significant Vehicular road users – Negligible: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 4. Everton Valley/ St Domingo Road junction	Effects on view	Pedestrians /Cyclists – Minor adverse: Not significant Vehicular road users – Minor adverse: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 5. Blackstone Street	Effects on view	Pedestrians /Cyclists/ Vehicular road users – Moderate adverse: Not Significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 5. Blackstone Street	Effects on view	Pedestrians /Cyclists/ Vehicular road users – Moderate adverse: Not Significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 5. Blackstone Street	Effects on view	Pedestrians /Cyclists/ Vehicular road users – Minor adverse: Not Significant	ADV	LT	IND	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation - Night time match day	Viewpoint 5. Blackstone Street	Effects on view	Pedestrians /Cyclists /Vehicular road users – Moderate adverse: Not Significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 6. Boundary Street	Effects on view	Pedestrians /Cyclists /Vehicular road users – Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 6. Boundary Street	Effects on view	Pedestrians /Cyclists/ Vehicular road users – Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 6. Boundary Street	Effects on view	Pedestrians /Cyclists/ Vehicular road users – Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 6. Boundary Street	Effects on view	Pedestrians /Cyclists/ Vehicular road users – Minor adverse: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 7. Everton Park	Effects on view	Minor beneficial: Not significant- all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 7. Everton Park	Effects on view	Minor beneficial: Not significant- all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 7. Everton Park	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 7. Everton Park	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 8. Bascule Bridge	Effects on view	Pedestrians /Cyclists – Moderate beneficial: Significant Vehicular road users – Moderate beneficial: Not Significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 8. Bascule Bridge	Effects on view	Pedestrians /Cyclists – Moderate adverse: Significant	ADV	LT	IND	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
				Vehicular road users – Moderate adverse: Not Significant					
Townscape & Visual	Operation - Night time non match day	Viewpoint 8. Bascule Bridge	Effects on view	Pedestrians /Cyclists – Moderate adverse: Significant Vehicular road users – Moderate adverse: Not Significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	8. Bascule Bridge	Effects on view	Pedestrians /Cyclists – Moderate adverse: Significant Vehicular road users – Moderate adverse: Not Significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 9. Waterloo Road	Effects on view	Pedestrians /Cyclists – Minor beneficial: Not significant Vehicular road users – Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 9. Waterloo Road	Effects on view	Pedestrians /Cyclists – Moderate adverse: Not significant Vehicular road users – Minor adverse: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 9. Waterloo Road	Effects on view	Pedestrians /Cyclists – Moderate beneficial: Not significant Vehicular road users – Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 9. Waterloo Road	Effects on view	Pedestrians /Cyclists – Moderate beneficial: Not significant Vehicular road users – Minor beneficial: Not significant	BEN	LT	IND	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation - Day time non match day	Viewpoint 10. Tunnel vent on Waterloo Road	Effects on view	Pedestrians /Cyclists – Minor beneficial: Not significant Vehicular road users – Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 10. Tunnel vent on Waterloo Road	Effects on view	Pedestrians /Cyclists – Moderate adverse: Not significant Vehicular road users – Minor adverse: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 10. Tunnel vent on Waterloo Road	Effects on view	Pedestrians /Cyclists – Minor beneficial: Not significant Vehicular road users – Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 10. Tunnel vent on Waterloo Road	Effects on view	Pedestrians /Cyclists – Moderate beneficial: Not significant Vehicular road users – Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 11. Waterloo Warehouse/ Waterloo Road	Effects on view	Residential /Pedestrians /Cyclists – Moderate beneficial: Not significant Vehicular road users – Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 11. Waterloo Warehouse/ Waterloo Road	Effects on view	Residential /Pedestrians /Cyclists – Moderate adverse: Not significant Vehicular road users – Minor adverse: Not significant	ADV	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 11. Waterloo Warehouse/ Waterloo Road	Effects on view	Residential /Pedestrians /Cyclists –Minor beneficial: Not significant	BEN	LT	IND	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
				Vehicular road users – Minor beneficial: Not significant					
Townscape & Visual	Operation - Night time match day	Viewpoint 11. Waterloo Warehouse/ Waterloo Road	Effects on view	Residential /Pedestrians /Cyclists – Moderate beneficial: Not significant Vehicular road users – Minor adverse: Not significant	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 12. Great Howard Street/ Old Hall Street junction	Effects on view	Negligible: Not significant - all receptors	-	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 12. Great Howard Street/ Old Hall Street junction	Effects on view	Negligible: Not significant - all receptors	-	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 12. Great Howard Street/ Old Hall Street junction	Effects on view	Negligible: Not significant - all receptors	-	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 12. Great Howard Street/ Old Hall Street junction	Effects on view	Negligible: Not significant - all receptors	-	LT	IND	P	R
Townscape & Visual	Operation – All scenarios	Viewpoint 13. Princes Parade	Effects on view	Negligible: Not significant - all receptors	-	LT	IND	P	R
Townscape & Visual	Operation – All scenarios	Viewpoint 14. Princes Dock	Effects on view	No effect for all scenarios - all receptors	-	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 15. New Quay	Effects on view	Negligible: Not significant for all scenarios - all receptors	-	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 15. New Quay	Effects on view	Negligible: Not significant for all scenarios - all receptors	-	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 15. New Quay	Effects on view	Negligible: Not significant for all scenarios - all receptors	-	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 15. New Quay	Effects on view	Negligible: Not significant for all scenarios - all receptors	-	LT	IND	P	R
Townscape & Visual	Operation – All scenarios	Viewpoint 16. Pier Head Ferry Terminal	Effects on view	No effect - all receptors	N/A	-	-	-	-

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation – All scenarios	Viewpoint 17. Georges Pier Head	Effects on view	No effect for all scenarios - all receptors	N/A	-	-	-	-
Townscape & Visual	Operation – All scenarios	Viewpoint 18. Pier Head Plaza	Effects on view	No effect for all scenarios	N/A	-	-	-	-
Townscape & Visual	Operation – All scenarios	Viewpoint 19. Salthouse Quay	Effects on view	No effect for all scenarios	N/A	-	-	-	-
Townscape & Visual	Operation – All scenarios	Viewpoint 20. Albert Dock	Effects on view	No effect for all scenarios	N/A	-	-	-	-
Townscape & Visual	Operation - Day time non match day	Viewpoint 21. Woodside Ferry Terminal	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 21. Woodside Ferry Terminal	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 21. Woodside Ferry Terminal	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 21. Woodside Ferry Terminal	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 22. Seacombe Ferry Terminal	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 22. Seacombe Ferry Terminal	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 22. Seacombe Ferry Terminal	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 22. Seacombe Ferry Terminal	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 23. Wallasey Town Hall	Effects on view	Moderate beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 23. Wallasey Town Hall	Effects on view	Moderate beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 23. Wallasey Town Hall	Effects on view	Moderate beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 23. Wallasey Town Hall	Effects on view	Moderate beneficial: Not significant - all receptors	BEN	LT	IND	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation - Day time non match day	Viewpoint 24. Magazine Promenade	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 24. Magazine Promenade	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 24. Magazine Promenade	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 24. Magazine Promenade	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 25. Fort Perch Rock	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 25. Fort Perch Rock	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 25. Fort Perch Rock	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 25. Fort Perch Rock	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 26. Trafalgar Dock	Effects on view	Moderate beneficial: Significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 26. Trafalgar Dock	Effects on view	Moderate beneficial: Significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 26. Trafalgar Dock	Effects on view	Moderate beneficial: Significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 26. Trafalgar Dock	Effects on view	Moderate beneficial: Significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 27. South-Western edge of Trafalgar Dock	Effects on view	Moderate beneficial: Significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 27. South-Western edge of Trafalgar Dock	Effects on view	Moderate beneficial: Significant - all receptors	BEN	LT	IND	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation - Night time non match day	Viewpoint 27. South-Western edge of Trafalgar Dock	Effects on view	Moderate beneficial: Significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 27. South-Western edge of Trafalgar Dock	Effects on view	Moderate beneficial: Significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 28. Alexandra Tower	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 28. Alexandra Tower	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 28. Alexandra Tower	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 28. Alexandra Tower	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time non match day	Viewpoint 29. Bidston Hill	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Day time match day	Viewpoint 29. Bidston Hill	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 29. Bidston Hill	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 29. Bidston Hill	Effects on view	Minor beneficial: Not significant - all receptors	BEN	LT	IND	P	R
Townscape & Visual	Operation – All scenarios	Viewpoint 30. Anglican Cathedral	Effects on view	No effect for all scenarios - all receptors	N/A	-	-	-	-
Townscape & Visual	Operation – All scenarios	Viewpoint 31. Metropolitan Cathedral of Christ the King	Effects on view	No effect for all scenarios - all receptors	N/A	-	-	-	-
Townscape & Visual	Operation - Day time non match day	Viewpoint 32. Holt Hill	Effects on view	Residential /Pedestrians /Cyclists – Negligible: Not significant Vehicular road users - Negligible: Not significant	-	LT	IND	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation - Day time match day	Viewpoint 32. Holt Hill	Effects on view	Residential /Pedestrians /Cyclists – Negligible: Not significant Vehicular road users - Negligible: Not significant	-	LT	IND	P	R
Townscape & Visual	Operation - Night time non match day	Viewpoint 32. Holt Hill	Effects on view	Residential /Pedestrians /Cyclists – Negligible: Not significant Vehicular road users - Negligible: Not significant	-	LT	IND	P	R
Townscape & Visual	Operation - Night time match day	Viewpoint 32. Holt Hill	Effects on view	Residential /Pedestrians /Cyclists – Negligible: Not significant Vehicular road users - Negligible: Not significant	-	LT	IND	P	R
Built Heritage	Construction	Bramley-Moore Retaining Dock Walls – asset	Whilst protection of the listed structures will not change the impact of the proposals on the receptor, the residual effect will be to safeguard the historic fabric to ensure its long-term survival following construction works and to allow for the long-term possibility of reversibility. A detailed Listed Building Consent for the installation of a permanent northern isolation structure will ensure the works are carried out in a way that protects the existing listed dock walls and allows for the long-term possibility of reversibility, it will not, however change the effect.	Major	ADV	ST	D	P	R
Built Heritage	Construction	Bramley-Moore Retaining Dock Walls – setting	Effects on the setting of the heritage asset.	Major	ADV	LT	IND	P	R
Built Heritage	Construction	Regent Road Dock Wall - asset	Whilst the protection of the listed wall will not change the effect of the proposals on the receptor, the residual effect will be to safeguard the remaining historic fabric to ensure its long-term survival following construction works. A methodology secured by Listed Building Consent for the storing and reinstatement of historic granite that is removed for the new openings in the Dock Wall will ensure a high quality finish and that the receptor is not further harmed by the proposals.	Moderate	ADV	ST	D	P	IRR
Built Heritage	Construction	Regent Road Dock Wall – setting	Effects on the setting of the heritage asset.	Moderate	ADV	ST	IND	P	IRR
Built Heritage	Construction	Hydraulic Engine House - asset	Commitment to repair, restore and convert the heritage asset. A series of reports and surveys and ultimately remedial works will ensure that the benefits offered by the proposals to the Hydraulic Engine House are delivered as effectively as possible.	Major	BEN	LT	D	P	IRR
Built Heritage	Construction	Hydraulic Engine House – setting	Effects on the setting of the heritage asset.	Moderate	ADV	LT	D	P	R
Built Heritage	Construction	Stanley Dock Conservation Area	The mitigation measures will ensure that works carried out to elements of the conservation area that are regarded as making a positive contribution to the character and appearance of the conservation area are safeguarded and their long-term survival ensured.	Major	ADV	LT	D	P	IRR
Built Heritage	Construction	Liverpool Maritime Mercantile City World Heritage Site	The mitigation measures will ensure that works carried out to elements of the WHS that are regarded as displaying attributes contained in the Statement of OUV are safeguarded and their long-term survival ensured.	Major	ADV	LT	D	P	IRR
Built Heritage	Construction	Nelson Dock Retaining Walls – asset and setting	The proposals will require the removal of the existing capstans that currently line the dock retaining wall. The majority of these are damaged, however those in good repair will be retained. It will also change its setting.	Moderate	NEU	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Built Heritage	Construction	Stanley Warehouse North (Titanic Hotel) - setting	Effects on the setting of the heritage asset.	Minor	NEU	LT	IND	P	R
Built Heritage	Construction	Hydraulic Tower to west of Stanley Dock - setting	Effects on the setting of the heritage asset.	Minor	NEU	LT	IND	P	R
Built Heritage	Construction	Entrances to Stanley Dock – setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Built Heritage	Construction	Tobacco Warehouse - setting	Effects on the setting of the heritage asset.	Moderate	NEU	LT	IND	P	R
Built Heritage	Construction	Stanley Dock Warehouse to south of Tobacco Warehouse - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Built Heritage	Construction	Bonded Tea Warehouse - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Built Heritage	Construction	Collingwood & Salisbury Docks - setting	Effects on the setting of the heritage asset.	Minor	NEU	LT	IND	P	R
Built Heritage	Construction	Stanley Dock - setting	Effects on the setting of the heritage asset.	Minor	NEU	LT	IND	P	R
Built Heritage	Construction	Clarence Dock Dry Graving Dock - setting	Effects on the setting of the heritage asset.	Minor	NEU	LT	IND	P	R
Built Heritage	Construction	Sea Wall - setting	Effects on the setting of the heritage asset.	Minor	NEU	LT	IND	P	R
Built Heritage	Construction	Victoria Clock Tower - setting	Effects on the setting of the heritage asset.	Moderate	NEU	LT	IND	P	R
Built Heritage	Construction	Dockmaster's Office - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Built Heritage	Construction	Leeds-Liverpool Canal Stanley Locks - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Built Heritage	Construction	Regent Road Bascule Bridge - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Built Heritage	Construction	15-17 Fulton Street List Entry Number 1469878 - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Built Heritage	Construction	Remnants of Overhead Railway - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Built Heritage	Construction	66 & 68 Regent Road - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Built Heritage	Construction	9 Blackstone Street - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Built Heritage	Construction	Wellington Dock/Sandon Half-Tide Dock - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Built Heritage	Construction	Sandon Dock - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Built Heritage	Construction	Huskisson Dock - setting	Effects on the setting of the heritage asset.	Negligible	NEU	LT	IND	P	R
Archaeology	Construction	08	Probable destruction of archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	10	Probable destruction of archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	11	Destruction of extant archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	12	Probable destruction of archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	13	Probable destruction of archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	14	Probable destruction of archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	15	Probable destruction of archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	16	Probable destruction of archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	17	Probable destruction of archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	18	Probable destruction of archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	19	Probable destruction of archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	23	Probable destruction of archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	24	Destruction of extant archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	25	Probable destruction of extant archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	28	Probable destruction of extant archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	29	Probable destruction of extant archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Archaeology	Construction	30	Probable destruction of extant archaeological heritage asset	Negligible	ADV	LT	D	P	IRR
Socio-economics	Construction	Labour Market & Employment	Generation of construction employment	Major	BEN	ST	D	T	R
Socio-economics	Construction	Labour Market & Skills	Generation of training and apprenticeship opportunities	Moderate	BEN	ST	D	T	R
Socio-economics	Construction	Local Economy	Generation of GVA	Moderate	BEN	ST	D	T	R
Socio-economics	Operation	Labour Market & Employment	Generation of operational employment. It should be noted that the only existing employment on-site is related to Svitzer. It is understood that the existing employment will be relocated, and not lost.	Minor	BEN	LT	D	P	R
Socio-economics	Operation	Labour Market & Employment	Generation of GVA	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Local Economy	Generation of additional wage income	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Local Economy	Generation of additional expenditure	Moderate	BEN	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Socio-economics	Operation	Local Economy	Increase in marketing and sponsorship revenue	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Local Community	Generation of societal value	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Local Community	Preservation of social and heritage value	Moderate	BEN	LT	D	P	R

Table 22.3

Proposed Development + Liverpool Waters Scenario: Summary of Residual Effects

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Transport	Effects remain as reported in Table 22.2								
Air Quality	Effects remain as reported in Table 22.2								
Noise & Vibration	Construction	PR1-PR8	Noise associated with dock infill, demolition and other construction works on sensitive receptors surrounding the proposed development site during the construction phase	Minor	ADV	ST	IND	T	R
Noise & Vibration	Operation –Stadium Scenario 1 Noise Intrusion	PR2, PR4, PR5, PR7, PR8	Noise associated with matchday operations prior to kick-off: crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system	Minor	ADV	LT	D	P	R
Noise & Vibration	Operation –Stadium Scenario 1 Noise Intrusion	PR1, PR3, PR6	Noise associated with matchday operations prior to kick-off: crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system	Moderate	ADV	LT	D	P	R
Noise & Vibration	Operation –Stadium Scenario 2 Noise Intrusion	PR1-PR6	Noise associated with matchday operations during match: crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium.	Major-Moderate	ADV	LT	D	P	R
Noise & Vibration	Operation –Stadium Scenario 2 Noise Intrusion	PR7, PR8	Noise associated with matchday operations during match: crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium.	Moderate	ADV	LT	D	P	R
Noise & Vibration	Operation –Stadium Concert	PR1-PR8	Noise associated with non-football events, such as music noise levels from concerts at the proposed stadium	Major-Moderate	ADV	LT	D	P	R
Noise & Vibration	All other noise & vibration effects remain as reported in Table 22.2.								

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Ground Conditions	Construction	Site Neighbours	Ground disturbance during the enabling and construction works has the potential to create new pathways for contaminants to migrate to adjacent land via air (e.g. as wind-borne dusts) with the potential to cause short term (acute) or long term (chronic) adverse effects on human health. Due to phasing of development, the potential exposure of site neighbours is not anticipated to be significantly affected by the brining forward of both the proposed development and Liverpool Waters development. With the development of the Liverpool Waters scenario in the surrounding area, site neighbours to the proposed development are medium sensitivity. Implementation of good construction practice and dust suppression measures shall mitigate this effect.	Negligible	ADV	ST	IND	T	IRR
Ground Conditions	Construction	Principal Aquifer	Potential for increased infiltration and promotion of leaching. Migration of contamination via preferential pathways and/or permeable strata have the potential to cause pollution to the Principal Aquifer. Greater potential for migration of contamination to the Principal Aquifer in the Proposed Development + Liverpool Waters Scenario due to increased scale and programme of construction. Implementation of a FWRA, removal of gross contamination and adoption of a measures defined in a CEMP shall mitigate this effect.	Negligible	ADV	ST	IND	T	R
Ground Conditions	Construction	River Mersey	Potential for increased infiltration and promotion of leaching. Migration of contamination via preferential pathways and/or permeable strata have the potential to cause pollution to the River Mersey. Greater potential for migration of contamination to the Principal Aquifer in the Proposed Development + Liverpool Waters Scenario due to increased scale and programme of construction. Removal of gross contamination and adoption of measured defined in a CEMP shall mitigate this.	Negligible	ADV	ST	IND	T	R
Ground Conditions	Construction	Port of Liverpool Dock System	Potential for increased infiltration and promotion of leaching. Migration of contamination via preferential pathways and/or permeable strata have the potential to cause pollution to the Port of Liverpool Dock System. Greater potential for migration of contamination to the Port of Liverpool Dock System in the Proposed Development + Liverpool Waters Scenario due to increased scale and programme of construction. Removal of gross contamination and adoption of measured defined in a CEMP shall mitigate this.	Negligible	ADV	ST	IND	T	R
Ground Conditions	Operation	River Mersey	Potential for infiltration and promotion of leaching. Migration of contamination via preferential pathways and/or permeable strata have the potential to cause pollution to the River Mersey. Removal of gross contamination, appropriate site drainage and measures to reduce infiltration (including raising of site levels) shall mitigate this. During operation of the Liverpool Waters development, discharge of surface water to the River Mersey is possible. Predicted to be chronic (low) levels of diffuse contaminants present in surface water discharges.	Minor	ADV	ST	IND	T	R
Ground Conditions	Operation	Port of Liverpool Dock System	Potential for infiltration and promotion of leaching. Migration of contamination via preferential pathways and/or permeable strata have the potential to cause pollution to the Port of Liverpool Dock System. Removal of gross contamination, appropriate site drainage and measures to reduce infiltration (including raising of site levels) shall mitigate this. During operation of the Liverpool Waters development, discharge of surface water to the Port of Liverpool Dock System is proposed. Predicted to be chronic (low) levels of diffuse contaminants present in surface water discharges. The Port of Liverpool Dock System is proposed to be utilised for recreational use as part of the Liverpool Waters scenario, and therefore is a medium sensitivity receptor.	Minor	ADV	ST	IND	T	R
Ground Conditions	All other ground condition effects remain as reported in Table 22.2.								

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Water Resources, Flood Risk & Drainage	Effects remain as reported in Table 22.2.								
Terrestrial Ecology	Effects remain as reported in Table 22.2.								
Aquatic Ecology	Effects remain as reported in Table 22.2.								
Wind	Operation	Area A: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	F1: thoroughfares	Wind comfort conditions are suitable for the target comfort conditions (with access to be managed when trigger conditions met)	Minor Beneficial to Negligible	BEN/NEU	LT	D	P	R
Wind	Operation	F2: thoroughfares	Wind comfort conditions are suitable for the target comfort conditions (with access to be managed when trigger conditions met)	Moderate Beneficial to Negligible	BEN/NEU	LT	D	P	R
Wind	Operation	G: thoroughfares	Wind comfort conditions are suitable for the target comfort conditions (with access to be managed when trigger conditions met)	Moderate Beneficial to Negligible	BEN/NEU	LT	D	P	R
Wind	Operation	Area H2: thoroughfares	Wind comfort conditions that are windier than the target comfort conditions	Moderate Beneficial	BEN	LT	D	P	R
Wind	Operation	Area H2: entrances	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial	BEN	LT	D	P	R
Wind	Operation	Area I2: entrances	Wind comfort conditions that are calmer than the target comfort conditions	Minor Beneficial	BEN	LT	D	P	R
Wind	Operation	Area J1: Seating	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area O: Ground Level Amenity Areas – Mixed Use	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area O: Seating	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area P1: Ground Level Amenity Areas – Mixed Use	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	Area P2: thoroughfares	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Negligible	BEN	LT	D	P	R
Wind	Operation	Top of Western Terrace: Ground Level Amenity – Mixed Use & Seating	Wind comfort conditions are suitable for the target comfort conditions (with access to be managed when trigger conditions met)	Negligible	BEN	LT	D	P	R
Wind	Operation	UU1	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	Operation	UU2	Wind comfort conditions that are windier than the target comfort conditions	Moderate Adverse to Negligible	ADV	LT	D	P	R
Wind	Operation	UU3	Wind comfort conditions that are windier than the target comfort conditions	Moderate Adverse to Negligible	ADV	LT	D	P	R
Wind	Operation	UU4	Wind comfort conditions that are windier than the target comfort conditions	Moderate Adverse to Negligible	ADV	LT	D	P	R
Wind	Operation	RR4	Wind comfort conditions that are calmer than the target comfort conditions	Moderate Beneficial to Negligible	BEN	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Wind	Operation	ND1	Wind comfort conditions that are windier than the target comfort conditions	Moderate Adverse to Negligible	ADV	LT	D	P	R
Wind	Operation	ND2	Wind comfort conditions are suitable for the target comfort conditions	Negligible	NEU	LT	D	P	R
Wind	All other winds effects remain as reported in Table 22.2.								
Daylight, Sunlight and Overshadowing	Operation	32-33 Regent Road	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	62-63 Regent Road	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	32-33 Regent Road	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	62-63 Regent Road	Effects on internal sunlight levels	N/A	-	-	-	-	
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-04	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-03	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-02	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-05	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-06	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-07	Effects on internal daylight levels	Minor	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-08	Effects on internal daylight levels	Minor	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-04	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-03	Effects on internal sunlight levels	Minor	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-02	Effects on internal sunlight levels	Moderate	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-05	Effects on internal sunlight levels	Minor	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-06	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-07	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-08	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R
Lighting	Operation	PR1-10	Event day and non-event day light emissions	Negligible	ADV	LT	D	P	R
Lighting	All other lighting effects remain as reported in Table 22.2								
Townscape and visual	Effects remain as reported in Table 22.2								
Built Heritage	Effects remain as reported in Table 22.2								
Archaeology	Effects remain as reported in Table 22.2								
Socio-economics	Effects remain as reported in Table 22.2								

Table 22.4

Proposed Development + Liverpool Waters + Cumulative Schemes Scenario: Summary of Residual Effects

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Transport	Effects remain as reported in Table 22.2								
Air Quality	Effects remain as reported in Table 22.2								
Noise & Vibration	Construction	PR9-PR11	Noise associated with dock infill, demolition and other construction works on sensitive receptors surrounding the proposed development site during the construction phase	Minor	ADV	ST	IND	T	R
Noise & Vibration	Operation –Stadium Scenario 1 Noise Intrusion	PR9, PR11	Noise associated with matchday operations prior to kick-off: crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system	Minor	ADV	LT	D	P	R
Noise & Vibration	Operation –Stadium Scenario 1 Noise Intrusion	PR10	Noise associated with matchday operations prior to kick-off: crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system	Moderate	ADV	LT	D	P	R
Noise & Vibration	Operation –Stadium Scenario 2 Noise Intrusion	PR9	Noise associated with matchday operations during match: crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium.	Minor	ADV	LT	D	P	R
Noise & Vibration	Operation –Stadium Scenario 2 Noise Intrusion	PR10, PR11	Noise associated with matchday operations during match: crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium.	Moderate	ADV	LT	D	P	R
Noise & Vibration	Operation –Stadium Concert	PR9, PR11	Noise associated with non-football events, such as music noise levels from concerts at the proposed stadium	Minor	ADV	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Noise & Vibration	Operation –Stadium Concert	PR10	Noise associated with non-football events, such as music noise levels from concerts at the proposed stadium	Negligible	ADV	LT	D	P	R
Noise & Vibration	All other noise & vibration effects remain as reported in Tables 22.2 and 22.3								
Ground Conditions	Effects remain as reported in Tables 22.2 and 22.3								
Water Resources, Flood Risk & Drainage	Effects remain as reported in Tables 22.2 and 22.3								
Terrestrial Ecology	Effects remain as reported in Tables 22.2 and 22.3								
Aquatic Ecology	Effects remain as reported in Tables 22.2								
Wind	Operation	RR3	Wind comfort conditions that are windier than the target comfort conditions	Minor Adverse to Negligible	ADV	LT	D	P	R
Wind	All other wind effects remain as reported in Table 22.3								
Daylight, Sunlight & Overshadowing	Effects remain as reported in Table 22.3								
Daylight, Sunlight and Overshadowing	Operation	32-33 Regent Road	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	62-63 Regent Road	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	32-33 Regent Road	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	62-63 Regent Road	Effects on internal sunlight levels	N/A	-	-	-	-	
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-04	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-03	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-02	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-05	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-06	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-07	Effects on internal daylight levels	Minor	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-08	Effects on internal daylight levels	Minor	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Regent Road Hotel	Effects on internal daylight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-04	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-03	Effects on internal sunlight levels	Minor	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-02	Effects on internal sunlight levels	Moderate	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-05	Effects on internal sunlight levels	Minor	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-06	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-07	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Daylight, Sunlight and Overshadowing	Operation	Liverpool Waters Block E-08	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R
Daylight, Sunlight and Overshadowing	Operation	Regent Road Hotel	Effects on internal sunlight levels	Negligible	ADV	LT	D	P	R
Lighting	Operation	PR11	Event day & non-event day light emissions	Negligible	ADV	LT	D	P	R
Lighting	All other lighting effects remain as reported in Table 22.2. and 22.3								
Townscape and Visual	Operation	Identified features within the site	Effects on townscape character	Negligible: Not significant	-	LT	IND	P	R
Townscape and Visual	Operation	National Character Area 58: Merseyside Conurbation	Effects on townscape character	Negligible: Not significant	-	LT	IND	P	R
Townscape and Visual	Operation	The Waterfront and Its Fringes City Centre Character Area	Effects on townscape character	Minor beneficial: Not significant	-	LT	IND	P	R
Townscape and Visual	Operation	Main Office Area City Centre Character Area	Effects on townscape character	Negligible: Not significant	-	LT	IND	P	R
Townscape and Visual	Operation	WHS SPD Character Area 3 - Stanley Dock Conservation Area	Effects on townscape character	Moderate beneficial: Not significant	BEN	LT	IND	P	R
Townscape and Visual	Operation	WHS SPD Character Area 4 - Castle Street Conservation Area	Effects on townscape character	Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape and Visual	Operation	Residential Docks Character Area	Effects on townscape character	Negligible: Not significant	-	LT	IND	P	R
Townscape and Visual	Operation	Industrial Docks Character Area	Effects on townscape character	Negligible: Not significant	-	LT	IND	P	R
Townscape and Visual	Operation	Ten Streets and Wellington Park Character Area	Effects on townscape character	Negligible: Not significant	-	LT	IND	P	R
Townscape and Visual	Operation	Vauxhall Residential Character Area	Effects on townscape character	Minor beneficial: Not significant	-	LT	IND	P	R
Townscape and Visual	Operation	Kirkdale Residential Character Area	Effects on townscape character	Negligible: Not significant	-	LT	IND	P	R
Townscape and Visual	Operation	Everton Residential Character Area	Effects on townscape character	Negligible: Not significant	-	LT	IND	P	R
Townscape and Visual	Operation	Viewpoint 3. Regent Road	Effects on view	Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape and Visual	Operation	Viewpoint 5. Blackstone Street	Effects on view	Minor beneficial: Not significant	BEN	LT	IND	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape and Visual	Operation	Viewpoint 6. Boundary Street	Effects on view	Moderate beneficial: Not significant	BEN	LT	IND	P	R
Townscape and Visual	Operation	Viewpoint 7. Everton Park	Effects on view	Minor beneficial: Not significant	BEN	LT	IND	P	R
Townscape and Visual	Operation	Viewpoint 8. Bascule Bridge	Effects on view	No effect	-	LT	IND	P	R
Townscape and Visual	Operation	Viewpoint 9. Waterloo Road	Effects on view	No effect	-	LT	IND	P	R
Townscape and Visual	Operation	Viewpoint 23. Wallasey Town Hall	Effects on view	Moderate beneficial: Not significant	BEN	LT	IND	P	R
Townscape and Visual	Operation	Viewpoint 24. Magazine Promenade	Effects on view	Moderate beneficial: Not significant	BEN	LT	IND	P	R
Townscape and Visual	Operation	Viewpoint 27. South-Western edge of Trafalgar Dock	Effects on view	No effect	-	LT	IND	P	R
Townscape and Visual	All other townscape and visual effects remain as reported in Table 22.2								
Built heritage	Effects remain as reported in Table 22.2								
Archaeology	Effects remain as reported in Table 22.2								
Socio-economics	Construction	Labour Market & Employment	Generation of construction employment	Major	BEN	ST	D	T	R
Socio-economics	Construction	Labour Market & Skills	Generation of training and apprenticeship opportunities	Moderate	BEN	ST	D	T	R
Socio-economics	Construction	Local Economy	Generation of GVA	Major	BEN	ST	D	T	R
Socio-economics	Operation	Labour Market & Employment	Generation of operational employment	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Labour Market & Employment	Generation of GVA	Major	BEN	LT	D	P	R
Socio-economics	Operation	Local Economy	Generation of additional household income	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Local Economy	Generation of additional expenditure	Major	BEN	LT	D	P	R
Socio-economics	Operation	Local Economy	Increase in marketing and sponsorship revenue	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Local Community	Generation of societal value	Major	BEN	LT	D	P	R
Socio-economics	Operation	Local Community	Preservation of social and heritage value	Moderate	BEN	LT	D	P	R

22.4 LIKELY SIGNIFICANT EFFECTS

22.4.1 Proposed Development Scenario

22.4.1.1 Construction Phase

Following implementation of mitigation measures, the proposed development would produce the following likely significant environmental effects during construction:

- Effects on townscape character of the Bramley-Moore Dock waterbody and associated dock walls – **Moderate Adverse**;
- Effects on townscape character of the Hydraulic Engine House – **Moderate Adverse**;
- Effects on townscape character of the Waterfront and Its Fringes City Centre Character Area – **Moderate Adverse**;
- Effects on townscape character of WHS SPD Character Area 3 (Stanley Dock Conservation Area) – **Major Adverse**;
- Effects on Viewpoints 3 (Pedestrians/Cyclists) 8 (pedestrians/cyclists) 26 (all receptors), 27 (all receptors) – **Moderate Adverse**;
- Physical changes to and effects on the setting of Bramley-Moore Retaining Dock Walls – **Major Adverse**;
- Physical changes to and effects on the setting of Regent Road Dock Wall – **Medium Adverse**;
- Commitment to repair, restore and convert the Hydraulic Engine House – **Very Large Beneficial**;
- Physical changes to elements of the Stanley Dock Conservation Area and effects on the conservation area's setting – **Major Adverse**;
- Physical changes to and effects on the setting of heritage assets that contribute to the Liverpool Maritime Mercantile City World Heritage Site – **Major Adverse**;
- Generation of construction employment – **Major Beneficial**;
- Generation of training and apprenticeship opportunities – **Moderate Beneficial**; and
- Generation of GVA – **Moderate Beneficial**.

22.4.1.2 Operational Phase

Following implementation of mitigation measures, the proposed development would produce the following likely significant environmental effects during operation:

- Noise effects on receptors TR09 (Titanic Hotel, Stanley Dock, Regent Road) (short-term 2023) and TR10 (62 Regent Road) (short-term 2023 and 2028) associated with increased vehicle movements – **Moderate Adverse**;
- Noise effects associated with matchday operations prior to kick-off (crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system) on receptor R11 (62 Regent Road) – **Moderate Adverse**;
- Noise effects associated with matchday operations during match (crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium) on receptor R11 (62 Regent Road) – **Moderate Adverse**;
- Wind conditions in parts of on-site thoroughfares in Areas A, B, C, D1, D2, F2, H2, J2, K, L, M, N1, P2 – **Moderate Beneficial**;
- Wind conditions at on-site entrances in Area I2 – **Moderate Beneficial**;
- Wind conditions on UU WwTw land (parts of UU2 and UU3) – **Moderate Adverse**;
- Wind conditions on UU WwTw land (UU4) – **Moderate Beneficial** to **Moderate Adverse**;
- Effects on townscape character of the Waterfront and Its Fringes City Centre Character Area (all scenarios) and Residential Docks Townscape Character Area (day time non-matchday/matchday, night-time match day) – **Moderate Beneficial**;
- Effects on townscape character of the Hydraulic Engine House **Major Adverse**;
- Effects on townscape character of the Bramley-Moore Dock waterbody and associated dock walls – **Moderate Adverse**;
- Effects on townscape character of WHS SPD Character Area 3 (Stanley Dock Conservation Area) (all scenarios) – **Major Beneficial**;
- Effects on Viewpoints 3 and 8 (both daytime non-matchday - pedestrians/cyclists), 26 and 27 (both all receptors under all scenarios) – **Moderate Beneficial**;
- Effects on Viewpoints 3 (daytime/night time matchday – all receptors) and 8 (daytime/night time matchday, night time non-matchday – pedestrians/cyclists) – **Moderate Adverse**;
- Generation of GVA – **Moderate Beneficial**;
- Generation of additional wage income – **Moderate Beneficial**;
- Generation of additional expenditure – **Moderate Beneficial**;
- Increase in marketing and sponsorship revenue – **Moderate Beneficial**;
- Generation of societal value – **Moderate Beneficial**; and
- Preservation of social and heritage value – **Moderate Beneficial**.

22.4.2 Proposed Development + Liverpool Waters Scenario

22.4.2.1 Construction Phase

Following implementation of mitigation measures, no changes to the likely significant environmental effects of the proposed development, as a result of the interaction of the development with the Liverpool Waters scheme, are anticipated during the construction phase.

22.4.2.2 Operational Phase

Following implementation of mitigation measures, the following changes in the likely significant environmental effects of the proposed development, as a result of the interaction of the development with the Liverpool Waters scheme, are anticipated during operation:

- Noise effects associated with matchday operations prior to kick-off (crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system) on receptors PR1, PR3 and PR6 (proposed Liverpool Waters development) – **Moderate Adverse**;
- Noise effects associated with matchday operations during match (crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium) on receptors PR7 and PR8 (proposed Liverpool Waters development) – **Moderate Adverse**;
- Noise effects associated with matchday operations during match (crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium) on receptors PR1-PR6 (proposed Liverpool Waters development) – **Major to Moderate Adverse**;
- Noise effects associated with non-football events, such as music noise levels from concerts at the proposed stadium on receptors PR1-PR8 (proposed Liverpool Waters development) – **Major to Moderate Adverse**;
- Wind conditions in parts of on-site thoroughfares in Areas G and H2 (additional area) – **Moderate Beneficial** (upgraded from not significant under Proposed Development Scenario);
- Wind conditions at on-site entrances in Area I2 downgraded from Moderate Beneficial under Proposed Development Scenario to Minor Beneficial and **not significant**;
- Wind conditions on UU WwTw land (parts of UU4) – **Moderate Adverse** (Moderate Beneficial areas identified under Proposed Development Scenario no longer present);
- Wind conditions on parts of Regent Road (parts of RR4) – **Moderate Beneficial**;
- Wind conditions on parts of Nelson Dock (parts of ND1) – **Moderate Adverse**; and

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

- Effects on internal sunlight levels in proposed Liverpool Waters Block E-02 – **Moderate Adverse**.

22.4.3 Proposed Development + Liverpool Waters + Cumulative Schemes Scenario

22.4.3.1 Construction Phase

Following implementation of mitigation measures, the following changes to the likely significant environmental effects of the proposed development, as a result of the interaction of the development with the Liverpool Waters scheme and the other cumulative schemes, are anticipated during the construction phase:

- Noise effects associated with matchday operations prior to kick-off: crowd footfall in and around the stadium, noise associated with the proposed fan zone, noise associated with food and drink vans, parking movements within the west stand and adjacent to the sea wall and use of the PA/VA system on receptor PR10 (Proposed Bramley Hotel – Blackstone Street/Regent Road) – **Moderate Adverse**;
- Noise effects associated with matchday operations during match: crowd noise including contributions from fans cheering and chanting, a goal being scored and celebratory music and full use of the PA/VA system in and around the stadium on receptors PR10 (Proposed Bramley Hotel – Blackstone Street/Regent Road) and PR11 (Proposed Lightbody Street Residential Development) – **Moderate Adverse**;
- Generation of GVA – **Major Beneficial** (assessed as Moderate Beneficial under Proposed Development Scenario).

22.4.3.2 Operational Phase

Following implementation of mitigation measures, the following changes to the likely significant environmental effects of the proposed development, as a result of the interaction of the development with the Liverpool Waters scheme and the other cumulative schemes, are anticipated during the construction phase:

- All significant townscape and visual effects for Proposed Development Scenario downgraded to **not significant**;
- Generation of GVA – **Major Beneficial** (assessed as Moderate Beneficial under Proposed Development Scenario);
- Generation of additional expenditure – **Major Beneficial** (assessed as Moderate Beneficial under Proposed Development Scenario);
- Generation of societal value – **Major Beneficial** (assessed as Moderate Beneficial under Proposed Development Scenario); and
- Generation of additional household (wage) income; Increase in marketing and sponsorship revenue; Preservation of social and heritage value – remain **Moderate Beneficial** (no change from Proposed Development Scenario).