

Non - Technical Summary

Monarchs Quay, Kings Dock, Liverpool

Prepared on behalf of Monarchs Quay Holdings Ltd

3 November 2017

Contact details

Monarchs Quay Holdings Ltd

Knight Frank LLP, One Marsden Street, manchester, M2 1HW Emily Roberts, 07467 915810, emily.roberts@knightfrank.com KF ref: SW/er 491





Contents

Introduction	3
Site and Surroundings	3
Scope	3
The Proposed Development	3
Planning Policy Context	4
Assessment of Impacts	4
Air Quality	4
Archaeology	5
Ecology	5
Flood Risk and Drainage	6
Heritage	8
Phase 1 Contamination	9
Highways	10
Wind Assessment	11
Daylight, Sunlight and Overshadowing	12
Noise	14
Summary & Conclusions	14

Introduction

- 1.1 Knight Frank LLP have been instructed by YPG Developments Ltd to coordinate a formal Environmental Impact Assessment (EIA), including the preparation of an Environmental Statement (ES) and Non-Technical Summary (NTS), to support the submission of a full planning application for a mixed use redevelopment of the site to include Interpretation Centre, offices, residential, car park and retail with associated landscaping and works at Monarchs Quay, Liverpool.
- 1.2 The ES sets out the findings of the EIA work undertaken by the applicant and the technical consultancy team, and forms part of the environmental information that will be used to determine the outcome of the planning application. This is the summary of the ES in non-technical language.

Site and Surroundings

- 1.3 This application relates to a site at Monarchs Quay, Kings Dock, Liverpool. The site is located within the administrative boundary of the city of Liverpool, more specifically to the South of Liverpool City Centre. The site forms part of Liverpool's waterfront and is one of the remaining key sites to be developed along the former docks.
- 1.4 The site is 3.87 acres / 1.57 hectares and is bounded by the Exhibition Centre to the West, by the Echo Arena and BT Convention Centre to the North, the by The Keel to the South and by the Queens Dock and Wapping to the East.

Scope

1.5 The ES describes the site and the proposed development, assesses the likely significant environmental effects of the development, and describes the measures that would be implemented to avoid, reduce or remedy these impacts. The scope of works undertaken by each of the technical consultants is agreed with Liverpool City Council, following their Scoping Response.

The Proposed Development

1.6 This application seeks full planning application for a mixed use redevelopment of the site to include Interpretation Centre, offices, residential, car park and retail with associated landscaping and works at Monarchs Quay, Liverpool.

Planning Policy Context

1.7 A planning policy review and appraisal has been undertaken of all relevant national and local planning policy documents and this is set out in the accompanying Planning Statement. At a local level planning applications are currently determined using the 'saved' policies of the Unitary Development Plan (UDP) which was adopted in November 2002. The Planning Statement demonstrates this in more details and concludes that that the proposal supports the objectives of key policy documents such as the NPPF (2012) and the UDP (saved policies 2002)

Assessment of Impacts

1.8 An assessment of the likely environmental impacts of the scheme have been undertaken and a summary of the findings is set out below. Each assessment followed a methodology agreed with the Council or consultees.

Air Quality

1.9 The air quality assessment has considered the potential air pollution and dust effects associated with the Proposed Development. In summary, the assessment has considered (i) dust arising from construction of the development and (ii) air quality effects as a result of additional traffic generated by the development.

1.10 Dust and Particulate Matter Arising from Construction of the Proposed Development

- 1.11 An assessment has been carried out to determine the risk of potential dust soiling and effects on human health of nearby residents. The risk for dust soiling effects is considered to be high for earthworks and construction and medium for trackout. The risk for human health effects is considered to be low for earthworks, construction and trackout.
- 1.12 These results indicate that site specific mitigation measures will be required. The implementation of such measures will substantially reduce the potential for unacceptable quantities of dust and particulate matter to be generated.

1.13 Air Quality Effects as a Result of Additional Traffic

1.14 An assessment has been carried out, which also considers relevant other developments in the local area, to determine the effect of traffic generated by the Proposed Development on nearby residents. The assessment has predicted that the proposed development will have a not significant effect on nearby residents. However, when a wholly robust approach is considered, which assumes no improvement in background pollution levels or vehicle exhaust emissions, it is predicted that the proposed development will have a significant adverse effect at a number of residential roadside locations along the A5036 Wapping and A562 Parliament Street within Liverpool. Therefore, mitigation

measures are required. The implementation of effective mitigation measures should assist in reducing potential effects of the development at roadside residential locations situated along the A5036 Wapping and the A562 Parliament Street within Liverpool.

Archaeology

- 1.15 The likely significant environmental effects of the Development on buried archaeological remains have been assessed. The assessment has been carried out in accordance with all relevant guidelines. The consideration of heritage assets in the planning process, whether designated or not, is covered by the NPPF at a national level and the Draft Liverpool Local Plan at a local level.
- 1.16 A desk-based study, coupled with a site visit and the results obtained from previous archaeological investigations in the immediate vicinity of the Site, has identified remains of potential archaeological interest. These include evidence of 18th-century basins and docks of probable regional (and potentially national) importance. The buried remains of infrastructure associated with the docks dating to the 19th and 20th centuries are also likely to be present. These non-designated assets are likely to be of local importance, depending on their condition.
- 1.17 Further investigation of the below-ground archaeological resource will be undertaken, as appropriate, at a later stage in the planning process. This will include targeted trial trenching to obtain further information on the extent, condition and significance of buried archaeological remains. Pending the results obtained from the trial trenching, a programme of detailed archaeological excavation may be implemented as a mitigation strategy. Further fieldwork may comprise the full excavation of the archaeological remains to enable a detailed record to be compiled in advance of any damage or destruction of this resource during the construction programme.
- 1.18 The excavation would be coupled with an appropriate level of post-excavation analysis, publication and deposition of an ordered project archive. In the interim, however, an assessment has been undertaken on the basis of the information available.
- 1.19 Following implementation of the scheme of mitigation, it is anticipated that the identified potential effects on buried archaeological remains would be reduced to negligible. In NPPF terms, residual effects upon archaeological assets during both the construction and operation phase will be negligible, causing less than substantial harm to the assets.

Ecology

1.20 The site contains no statutorily designated nature conservation sites, There are 9 non-statutory designated nature conservation sites within 2km of the site boundary including 8 'Liverpool Local Geological Sites' and 1 'Nature Improvement Area'. The non-statutory site in closest proximity to the

development site is the 'Mersey Estuary - Nature Improvement Area', which lies approximately 110m to the west of the site boundary. It is anticipated that no statutory or non-statutory sites in the local area will be affected by the proposed development

- 1.21 Habitats on site comprise areas of hardstanding, amenity grassland, introduced shrub and ornamental tree planting. Generally the site is classified as having a low conservation value. None of the habitats within the site are of significant interest in terms of the plant species composition, nor do they have characteristics of semi-natural habitats. No rare or locally uncommon plant species or invasive species as listed under the Wildlife and Countryside Act 1981 (as amended) were detected at the site.
- 1.22 Liverpool Local Geological Sites are designated due to their geological interest, therefore it is considered that there will be no significant adverse effect in terms of ecology on these non-statutory sites as a result of the development.
- 1.23 Concerning protected species and avoidance of the impacts highlighted, mitigation is recommended including the retention of the trees and shrubs where feasible, or replacement planting using appropriate native species

Flood Risk and Drainage

- 1.24 A Flood Risk Assessment (FRA) has been produced, in accordance with the NPPF and PPG ID: 7 guidance, for the construction of a mixed-use development, on land located at Monarchs Quay, off Queens Road, Liverpool (hereafter referred to as 'the Site').
- 1.25 The report has included an assessment of the surface water drainage requirements of the Site, and details the flood risk and how this could be managed and mitigated to allow the Site to be developed in support of a full planning application.
- 1.26 The FRA has demonstrated the following:
 - The Site totals 1.57ha in area, and is located within a 5.5 ha wider Site. The proposed development forms the second stage of a phased development within the wider Site. The wider Site is currently occupied by areas of brownfield land, hardstanding car park and metalled roads. The Site has a current land use of car parking, metalled road, paved hardstanding and grassed areas.
 - 2. Development is proposed within three areas of the Site, labelled Plots 2, 3 and 4 within this FRA.

- 3. The River Mersey estuary is located to the west of the wider Site. To the east of the wider Site, are a series of hydrologically linked docks.
- 4. The Environment Agency online flood map shows the Site to be located entirely within Flood Zone 1; outside the 1 in 1000-year probability of tidal flooding (0.1% AEP) and as being at 'low' risk of tidal flooding. Most of the wider Site is located within Flood Zone 1; outside the 1 in 1000-year probability of fluvial (river) and tidal flooding (0.1% Annual Exceedance Probability [AEP]). A small area in the south west of the wider Site is shown to be located within Flood Zones 2 and 3. Environment Agency flood zones are representative of tidal flooding within the wider Site.
- 5. Updated tidal flood outlines show that the Site would be largely located within Flood Zone 1; outside the 1 in 1000-year probability of fluvial (river) and tidal flooding (0.1% Annual Exceedance Probability [AEP]). An area to the east of the Queens Wapping Bridge, which forms Plot 2 of the Site, is shown to be inundated during the 1 in 200-year return period tidal event (Flood Zone 3).
- 6. When climate change is considered for the 1 in 200-year event for the year 2115, the southwestern area of the Site is shown to be inundated.
- 7. The Site and wider Site has isolated areas of surface water ponding with low to high risk, primarily located within the existing road network and in the central and northern areas of Plot 3. No overland flow pathways originating outside of the wider Site are shown.
- 8. Flood risk from all other sources is considered 'Low'
- 9. Flood risk from tidal and surface water sources will be mitigated through the following measures:
- 10. Ensure finished floor levels are above 7.28 mAOD, where feasible, to ensure the development remains flood free from tidal sources, for the entirety of its lifetime (to the year 2115).
- 11. Adoption of a surface water management strategy.
- 12. Incorporate flood resilient construction measures into the proposed buildings
- 13. Register the Site with the Environment Agency Floodline Warnings Direct service.
- 14. Prepare a Flood Plan to ensure all onsite staff and visitors can exit the Site and move to a place within Flood Zone 1 (low risk).
- Subject to mitigation measures, the Sequential Test will be passed and the Exception Test would not be required.
- The proposed development will not increase the impermeable surfaces and therefore the amount of runoff will remain unchanged.

- A drainage scheme is proposed to connect to an existing surface water network within the wider Site, with subsequent connection to the public surface water network and the River Mersey Estuary. It is proposed to maintain the current surface water discharge for areas that currently diffusely discharge to the Docks.
- 1.27 The FRA has considered the potential impact of the development on surface water runoff rates.

 These rates have been calculated, and it has been demonstrated that surface water can be managed, such that flood risk to and from the Site following development will not increase.
- 1.28 The FRA demonstrates that the proposed development would be operated with minimal risk from flooding, and would not increase flood risk elsewhere. The development should therefore not be precluded on the grounds of flood risk and surface water drainage.

Heritage

- 1.29 The Proposed Development comprises a full planning application for an Interpretation Centre, carpark with ground floor retail and an apartment block. The Proposed Development is the second application of a mixed use masterplan to create a leisure destination at the Monarchs Quay site. The masterplan contains commercial, leisure, ice rink, hotel/spa, retail, multi-storey car park and residential accommodation
- 1.30 The Built Heritage ES chapter assessed the effect of the proposed development within a 400m boundary of the Application Site (the Study Area). The Study Area boundary has been identified following a detailed consideration of the topography of the area surrounding the Application Site, the prevailing street pattern and alignment, the impact of intervening townscape and the degree of visibility of the heritage assets across and from the Application Site. The resulting Study Area boundary is therefore bespoke to the character of the area, the physical surroundings of the relevant heritage assets and the way in which they are experienced.
- 1.31 The Application Site is within the buffer zone (BZ) of the Liverpool Maritime Mercantile History World Heritage Site and the World Heritage Site itself is within the wider Study Area. With the exception of the BZ there are no designated or non-designated heritage assets within the Application Site. The Albert Dock Conservation Area is to the north of the Application Site within the Study Area and a number of listed buildings are located within the Study Area. A search of the Merseyside Historic Environment Record was also undertaken.
- 1.32 The effects of the construction phase will be temporary. It is concluded that the construction phase of the Proposed Development will result in a minor adverse magnitude of impact on the Wapping Basin, Gatekeepers Lodge at entrance to Wapping Dock, Hydraulic Tower at Wapping Dock, and Warehouse at Wapping Dock resulting in a minor /moderate adverse overall effect for the Warehouse

at Wapping Dock and a minor adverse impact for Wapping Basin, Gatekeepers Lodge at entrance to Wapping Dock, Hydraulic Tower at Wapping Dock (due to their lower grade) for the construction phase. In regards to the remainder of the assets the construction phase will result in a no change magnitude of impact leading to a neutral magnitude of impact. This is due to the distances between the assets and Application Site and the character and quality of intervening development.

- 1.33 The assessment concludes that the operational phase will have a minor beneficial magnitude of impact on the Albert Dock Conservation Area resulting in a minor/moderate magnitude of impact against value. This is due to the redevelopment of an area of its setting which is presently undeveloped and low quality with a high quality new building.
- 1.34 In regards to all other assets there will be a no change magnitude of impact resulting in a neutral magnitude of impact against value. This takes into consideration the significance and setting of these assets, the relative distance between them and the nature of intervening development.

Phase 1 Contamination

- 1.35 Historical mapping suggests that the site has been utilised as dockland since before the mid 1800s. Since then the site has undergone multiple layouts with dock areas being excavated and infilled and railway lines and shed being present in central area of the site. The site has had a similar layout to the present since the 1980s. Potentially significant sources of ground contamination have been identified and it is considered that the scheme will require extensive remediation prior to the development;
- 1.36 The site is located within a moderate sensitivity setting predominantly due to the close proximity of surface watercourses. The underlying Secondary A is of moderate sensitivity due to the limited drift deposits;
- 1.37 Given the nature of the development and the likely ground conditions, it is considered that short term moderately adverse impacts could be generated during the enabling works associated with management of civil engineering activities and soil arisings. However, with adequate planning it is considered that these impacts can be fully mitigated meaning that ground conditions at the proposed development will have a negligible impact upon identified receptors;
- 1.38 The site lies in an area at high risk from possibly Unexploded Ordnance results from the Second World War. The risk will require assessment prior to the development;

Highways

- 1.39 Various transport related assessments and reports have been undertaken in consultation with Liverpool City Council acting as Highway Authority, and in line with guidance provided in Paragraph 32 of the National Planning Policy Framework.
- 1.40 The assessments have appraised key transport aspects identifying the following findings:
 - The development proposals have been discussed in context with the local environment. Measures
 to accommodate all modes of access have been developed;
 - A review of relevant planning policy has been undertaken, planning policy has been adopted and conformed to where relevant;
 - The existing transport conditions have been audited and discussed within the assessment. A
 MASA assessment has been undertaken concluding that excellent pedestrian infrastructure and
 public transport provision is available, along with the need for existing infrastructure to be
 enhanced within Kings Dock;
 - The findings estimate that the proposed development will create a critical patronage mass to enable a bus service to be diverted and / or extended through the site;
 - Local to the site, alterations to the road network in Kings Dock have been proposed so as to facilitate the demands of the development for all modes of transport, and integrate well with existing traffic patterns;
 - A review of directional signage within Kings Dock has been undertaken and recommendations put forward to revise the signage to take account of the impacts created.
 - The assessments have forecast person trip assignments created by the proposed development site, along with adjacent committed developments and infrastructure.
 - Junction capacity analysis has been undertaken associated with materially impacted junctions and improvement measures have been recommended so as to seek to mitigate the impacts created.
 - An assessment of car parking demand has been undertaken, confirming that the proposed parking
 provision is suitable to accommodate the likely demand created by the proposed development;
 This has included the assessment of parking types such as: cycle, motorcycle, disabled, parent
 and child and electric parking provision.
 - The assessments have identified the need for detailed travel plans to be prepared by all future occupiers of the site. Measures, targets, and actions, along with monitoring regimes have been recommended so as to provide guidance and an integrated approach to future occupiers.
 - The assessments have specifically considered potential impacts to the adjacent Arenas, and put forward recommendations to seek to manage traffic flow and volume during busy event periods.
 - The assessments undertaken have recommended the need for the following management plans to be put in place prior to occupation and / or commencement of works: Construction Stage Traffic Management Plan, Car Park Traffic Management Plan, Delivery and Servicing Traffic Management Plan; and,

- The assessments did not identify any historic accident patterns or trends that would be detrimentally impacted by the operations of the proposed development.
- 1.41 In terms of cumulative impact, growth in background traffic flows will occur on the local highway network irrespective of the quantum of the Kings Dock development. This background traffic growth will arise from different sources, which have been classified as follows for the purposes of the traffic impact analysis presented within this report.
- 1.42 The assessment scenarios considered cumulative impacts of committed and strategic developments and infrastructure. The mitigation has been forecast to create a wider benefit in managing traffic flow on the highway network more effectively, seeking to both mitigate the impacts of the proposed development, but also manage background and future committed development traffic given changes to driver behaviour and directional movements of traffic travelling through the junctions recommended to be mitigated.

Wind Assessment

- 1.43 The wind microclimate assessment has comprised an expert qualitative review of expected pedestrian level wind conditions, based on consideration of the massing and exposure of the Proposed Development in conjunction with long-term wind statistics applicable to the Site.
- 1.44 Based on the wind climate statistics, the most frequent strong winds blow from the west-north-west and west. Winds from the south-south-east are also common, but these winds are generally light. Northerly winds are generally light and rare, though cold north-easterly winds are common during spring. Wind speeds are generally higher during winter and lower during summer.
- 1.45 The Proposed Development comprises modest structures with respect to wind effects. However, the shelter from the most frequent strong winds from the west-north-west, created by existing buildings, is limited and winds passing over the existing buildings are expected to impact at pedestrian level within the Site. In particular, there is potential for significant channelling of prevailing winds along the western and northern elevations of Building 3, with subsequent acceleration of these winds around the Building corners. The southern parts of Buildings 2 and 4 are more sheltered from prevailing winds, but the northwest and northeast corners are expected to be susceptible to these winds channelling around the corners.
- 1.46 As a result of the above effects, there is potential for pedestrian level wind conditions to rate as unsuitable in terms of pedestrian safety around the southwest corner of Building 3. However, the potential exceedance of the safety criteria is expected to be marginal at worst, and is expected to affect only a small area of roadway and vehicular access. On this basis, this effect is considered

localised moderate adverse. Otherwise, the Proposed Development is expected to have **negligible** effect on pedestrian safety across the remainder of the Site and surrounding area.

- 1.47 In terms of pedestrian comfort, conditions are expected to be tolerable for pedestrian passage around the southwest corner of Building 3. This effect is considered **minor adverse**. Otherwise, thoroughfares within the Site are expected to be suitable for pedestrian access to, and passage through, the Proposed Development, and the wider effect on thoroughfares is considered **negligible**.
- 1.48 The main entrance to Building 4 is expected require localised protected through the introduction of either a side screen at the Building corner or tree planting along the northwest elevation. Subject to this, the main pedestrian entrances to the Proposed Development are expected to have suitable conditions for pedestrian ingress/egress and the residual effect on entrances is therefore expected to be **negligible**.
- 1.49 The Building 4 podium-top courtyard is expected to have acceptable conditions for planned activities, comprising a mix of outdoor seating within the sheltered pockets along the Building front and general recreational uses (such as children's play for example) across the more open space. This effect is therefore considered **negligible**. Conditions along the waterfront area around Building 4 are expected to be at least tolerable for associated recreational uses. As these conditions are unchanged from Baseline Conditions, this effect is considered **negligible**.
- 1.50 The Proposed Development is not expected to have any significant impact on the pedestrian level wind conditions within the surrounding area.
- 1.51 No significant cumulative effects with the future surrounding developments are expected and no significant additional effects, over and above those discussed above for the completed Proposed Development, are expected during the construction phase.

Daylight, Sunlight and Overshadowing

1.52 The October 2017 Delva Patman Redler Daylight, Sunlight and Overshadowing Study provides an assessment of the likely significant daylight and sunlight impacts of the Proposed Development. A daylight and sunlight assessment has been undertaken on the neighbouring amenity to residential properties and proposed residential units within the schemes.

- 1.53 To assess the potential impact of the Proposed Development on daylight to the neighbouring residential properties a baseline assessment was undertaken which was used to compare the levels of light left after any development takes place, based on the Building Research Establishment's (BRE) Site Layout Planning for Daylight & Sunlight 2011.
- 1.54 The BRE Site Layout Planning for Daylight & Sunlight 2011 utilises three assessments methods for daylight. During construction the Proposed Development assessed gradually decrease the levels of daylight and sunlight available to neighbouring properties. As the superstructures evolve the effect will naturally increase the light loss. Therefore, during the construction phase the neighbouring properties will experience a range negligible impacts.
- 1.55 In terms of the Monarchs Quay Phase 1a & 1b development, the impact on neighbouring properties has been assessed, based on a range of residential properties and sensitive receptors in the surrounding area. Of rooms assessed will meet the BRE criteria for the daylight assessments. The majority of rooms assessed will meet BRE criteria for all three daylight assessments. The ASPH sunlight analysis on neighbouring properties indicates that all relevant rooms assessed will continue to receive levels of sunlight akin to a sub-urban setting. Therefore, the impact on all neighbouring amenity is considered to have a range of negligible impacts.
- 1.56 In respect of the proposed residential units, the assessment indicates that all of the windows assessed will be adequately daylit for their intended use, it has been demonstrated that all rooms will meet the BRE criteria for all three daylight assessments. The majority of rooms assessed will meet BRE criteria for all three daylight assessments. Therefore, the BRE criteria is met for all windows. The ASPH sunlight analysis on neighbouring properties indicates that all relevant rooms assessed will receive levels of sunlight akin to a sub-urban setting.
- 1.57 A transient and permanent overshadowing assessment on existing and proposed amenity including the Docks for ecology purposes show that all areas assessed will exceed BRE criteria and therefore a range of negligible impacts will occur.
- 1.58 Consideration has been given to the potential for cumulative daylight and sunlight impacts associated with the Proposed Development together with other surrounding 'committed schemes'. A review concluded that no significant cumulative environmental effects are predicted and categorised as negligible impact.
- 1.59 Therefore, the analysis undertaken demonstrates that given the approach recommended by the BRE guidelines, the impact of the proposed development is considered acceptable in daylight and sunlight terms on the surrounding amenity at Monarchs Quay.

Noise

- 1.60 This Chapter of the ES, prepared by Environmental Noise Solutions Limited (ENS), considers the likely or potential impact of the proposed development on aspects of the environment which may be affected by noise and vibration and is informed by a Noise Impact Assessment (NIA) for the proposed development.
- 1.61 The development site is located in a mixed use area of Liverpool's redeveloped docks. From on site observations and monitoring, the existing ambient noise climate in and around the development site is formed by distant and local road traffic and general urban noise sources (including heating, ventilation and air conditioning (HVAC) plant and other commercial noise sources).
- 1.62 The main noise sensitive receptors identified on, or around, the site consist of the residential elements proposed as part of the development and existing residential development outwith the site boundaries.
- 1.63 The aspects of the proposed development with the potential to significantly affect the environment were identified as the construction phase works, the operation of the introduced non-residential uses on both existing and introduced receptors, road traffic associated with the development and the noise sensitivity of the introduced residential element on the viability of existing commercial uses.
- 1.64 The potentially significant aspects of the proposed development were initially assessed using significance criteria. Through this process, it was determined that further consideration was required for two aspects of the development, namely, the potential impact of the operation of external fixed services plant associated with the introduced uses on local noise sensitive receptors and the potential impact of road traffic associated with the development on local noise sensitive receptors.
- 1.65 Identified mitigation measures include the setting of target criteria for plant noise emissions at the noise sensitive receptors having regard to the background noise climate.
- 1.66 On the basis of the mitigation measures identified, there are considered to be no significant residual noise and vibration impacts associated with the proposed development.

Summary & Conclusions

1.67 Knight Frank LLP have been instructed by YPG Developments Ltd to coordinate a formal Environmental Impact Assessment (EIA), including the preparation of an Environmental Statement (ES) and Non-Technical Summary (NTS), to support the submission of a full planning application for a mixed use redevelopment of the site to include Interpretation Centre, offices, residential, car park and retail with associated landscaping and works at Monarchs Quay, Liverpool.

- 1.68 This ES has focused on:
 - Air Quality
 - Archaeology
 - Ecology
 - Flood Risk and Drainage
 - Heritage
 - Land Contamination
 - Highways
 - Wind
 - Daylight, Sunlight and Overshadowing
 - Noise
- 1.69 The ES has demonstrated that through construction, use and when assessed cumulatively with other developments in the area, that provided suitable mitigation is provided, there will be no significant adverse effects on the environment.