

Appendix 1.A

LIMERICK CITY AND COUNTY COUNCIL

CHIEF EXECUTIVE'S ORDER

File Ref: _____

Order No. CE 2017/077

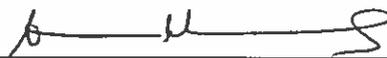
SUBJECT:

Proposed regeneration of the Opera Site, Limerick for mixed use development comprising office, retail, licensed premises and other ancillary uses

ORDER:

I, Conn Murray, Chief Executive of Limerick City and County Council, in accordance with the powers vested in me by Section 151 of the Local Government Act, 2001 (as amended), having considered report from the A/Senior Planner and the legal advice of Senior Counsel received on this matter, I hereby determine that Limerick City & County Council seek consent from An Bord Pleanála as required by Article 120[5] and [6] of the Planning and Development Regulations 2001 as amended, pursuant to Section 175 of the Planning and Development Act 2000 (as amended), where Local Authority proposed development requires EIA in respect of the proposed development/regeneration.

Signed: _____



**Conn Murray
Chief Executive**

Dated this 31st day of Oct 2017

Appendix 1.B

Appendix 1B – Accidents and Natural Disasters Screening.

Appendix 1B

1.1 Major accidents and disasters

1.1.1 Introduction

This section presents an assessment of the likely significant adverse effects on the environment arising from the vulnerability of the proposed development to risks of major accidents and disasters. The assessment of the vulnerability of the proposed development to major accidents and natural disasters is included in this EIA following changes to EU legislation. The revised EIA Directive 2014/52/EU (new EIA Directive) states the need to assess:

“the expected significant adverse effects of the project on the environment deriving from the vulnerability of the project to risks of major accidents and/or natural disasters which are relevant to the project concerned”.

1.1.2 Methodology

The assessment of major accident and disasters is a new requirement and national guidelines for mixed use developments are not yet available. In the absence of such guidance, a method proposed for risk identification within Guidance on Assessing and Costing Environmental Liabilities (EPA, 2014) has been adapted to identify, classify and evaluate risk and assessment guidance used by Highways England, which has been adapted for a mixed use development project.

Some risk assessment is inherent within the environment assessment proposed within each EIA chapter (flood risk) however this assessment also tries to capture risks which though exceptional are also plausible.

The identification of risks associated with the proposed development has been amended from national disaster planning. Classification and evaluation should achieve the following objectives:

- Vulnerability of the project to risks of major accidents and/or disasters; and
- Any consequential changes in the predicted effects of that project on environmental topics.

To achieve this, the assessment of the project should:

- Apply professional judgement to develop project specific definitions of major events;
- Identify any major events that are relevant to and can affect a project;
- Where major events are identified, describe the potential for any change in the assessed significance of the project on relevant environmental topics in qualitative terms; and
- Clearly describe any assumed mitigation measures, to provide an evidence base to support the conclusions and demonstrate that likely effects have been mitigated/managed to an acceptable level.

For the purposes of this assessment a Major Event is defined as:

“an acute or chronic accident or disaster, of human or natural origin, which occurs either as a consequence of, or which interacts with, the construction or operation of the proposed Scheme, and which has substantial consequences for people or the environment”.

The methodology adopted has included three main stages, as follows:

- Stage 1: Major events with little relevance (for example volcanic eruptions) were not included. Stage 1 also included an initial review of potential receptors to identify any groups that it was not considered necessary to include in the assessment;

- Stage 2: a screening exercise was undertaken to review the long list of major events and to give consideration to their relevance to the proposed development, and therefore whether they should be included on the project specific short list of events requiring further consideration;
- Stage 3: where further design mitigation is unable to remove the potential interaction between a major event and a particular topic, the relevant EIAR chapter identifies the potential consequence for receptors covered by the topic, and gives a qualitative evaluation of the potential for the significance of the reported effect to be increased as a result of a major event.

The qualitative evaluation of the potential for the significance is presented in Table 1. The residual assessment is based on the exceptionality of the major event to this proposed development and whether there is a significant effect after the application of mitigation.

Table 1 Determining Significance of Major Events

Significance	Effects
Major	Large perceptible risk. The major event is unique to this project due to location and/or design. Mitigation measures will not manage the risk.
Moderate	Additional perceptible risk. The major event is largely due to the project's location and/or design. Mitigation measures will manage some of the risk but not fully.
Minor	Slight perceptible risk. The major event is in part due to the project's location and/or design. Mitigation measures will manage risk to an acceptable level.
Not Significant	No or minimal perceptible additional risk. Risk is not unique to the project or has been effectively been removed with through design and mitigation.

1.1.3 Stage1 and 2 findings

1.1.3.1 Stage 1

A copy of the long list of major events is provided in Table 2. Although the majority of these major events are already considered under other legislative or design requirements, this is not considered to be sufficient reason to eliminate the major event from any further consideration. However, where it is concluded that the need for compliance is so fundamental, and the risk of any receptors being affected so remote, such major events have not been included on the shortlist.

Likewise, it is considered reasonable and proportionate to exclude certain receptor groups from the outset. Construction workers, as a receptor, can be excluded from the assessment, because existing legal protection is sufficient to minimise any risk from major events to a reasonable level.

Another potential source of major events related to the proposed development is major flooding incident during its operation. These can clearly impact on people though fatalities and serious injury, but can also impact on the environment, through the spillage of effluents and hazards associated with debris during flood events.

The flood risk associated with the proposed development has been assessed as part of the Hydrology assessment.

Table 2 Major Accidents and Disasters Screening

		Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	Potential Receptors	Covered already in EIA? If so, where?	Continue to shortlist?
	Natural Disasters					
1	Geological disasters					
1.1	Avalanches and landslides	No	Due to the urban, dockland nature of the site, it is expected that any landslides would only been the result of construction activity which would be regulated through the OCEMP	N/A	N/A	No
1.2	Earthquakes	No	The site is not in a geologically active area and as such earthquakes are considered to be a real risk or serious possibility.	N/A	N/A	No
1.3	Sinkholes	Yes	The underlying geology of the site will not result in sinkholes being created.	Construction workers, proposed development users.	N/A	No
1.4	Volcanic eruptions	No	The site is not in a geologically active area and as such volcanos are considered to be a real risk or serious possibility.	N/A	N/A	No
2	Hydrological disasters					

		Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	Potential Receptors	Covered already in EIAR? If so, where?	Continue to shortlist?
2.1	Floods	Yes	Both the vulnerability of the project to flooding, and its potential to exacerbate flooding, are to be covered in the Flood Risk Assessment and is reported in Appendix 8A both in terms of the risk to the proposed development and increased risk due to the proposed development.	Construction workers, proposed development users.	Yes - Chapter 8: Water and Appendix 8A	Yes
2.2	Limnic eruptions	No	Not applicable as there are no deep-water lakes nearby	N/A	N/A	No
2.3	Tsunami/Storm surge	Yes	Incidents of storm surges have been considered in the Flood Risk Assessment.	N/A	Yes - Chapter 8: Water and Appendix 8A	No
3	Meteorological disasters					
3.1	Blizzards	No	Blizzard conditions could affect any member of the population and the risk is no different from other mixed use development in Ireland, and as such is not considered further.	N/A	N/A	No
3.2	Cyclonic storms	No	No - not applicable	N/A	N/A	No
3.3	Droughts	No	Droughts are only considered as a disaster due to water shortages for essential	N/A	N/A	No

		Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	Potential Receptors	Covered already in EIA? If so, where?	Continue to shortlist?
			services and where there are indirect impacts on food production, loss of soils etc. The proposed development is not considered to be vulnerable to drought.			
3.4	Thunderstorms	Yes	As part of building regulations, the proposed development has been designed to withstand lightning strikes and will be no more vulnerable than any other development.	Construction workers, proposed development users.	No	No
3.5	Hailstorms	No	No	N/A	N/A	No
3.6	Heat waves	Yes	The proposed development has been designed to withstand the effects of high temperatures and has been optimised to ensure adequate ventilation. It is no more vulnerable than any other development of this type.	N/A	N/A	No
3.7	Tornadoes	No	Although there are tornadoes in Ireland, their destructive force tends to be much less than in other parts of the world and the proposed development is	N/A	No	No

		Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	Potential Receptors	Covered already in EIA? If so, where?	Continue to shortlist?
			not particularly vulnerable to any potential effects.			
3.8	Wildfires	Yes	The buildings have been designed to existing fire regulations and are in an area which is not considered to be vulnerable to wildfires.	N/A	No	No
3.9	Air Quality Events	Yes	The effects on air quality associated with construction of the proposed development are identified in Chapter 9 of the EIA. The proposed development will not result in any air quality effects during operation.	Construction workers	Yes - Chapter 7: Air Quality & Climate	No
4	Space disasters					
4.1	Impact events and airburst	No	The proposed development is considered to be no more vulnerable than any other development.	N/A	N/A	No
4.2	Solar flare	No	Solar flares can interrupt radio and other electronic communications. The design of the technology will take this into consideration.	N/A	N/A	No
5	Transport					

		Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	Potential Receptors	Covered already in EIA? If so, where?	Continue to shortlist?
5.1	Road Accidents	Yes	The risk of traffic accidents resulting from the proposed development will be identified in the traffic chapter.	Construction workers / Proposed development users	Yes - Chapter 13: Traffic and Transport	No
5.2	Rail Accidents	No	No active railways located close to the proposed development. The existing disused line will be bridged by the proposed development. The upgraded railway will need to be design to modern safety standards.	N/A	N/A	No
5.3	Aircraft Disasters	Yes	There is not considered to be an increased risk to road users.	N/A	N/A	No
5.4	Maritime Disasters	No	The site is not within an active port and the proposed development is not considered vulnerable.	N/A	N/A	No
6	Engineering Accidents/Failures					
6.1	Bridge Failure	Yes	No proposed bridges.	N/A	N/A	No
6.2	Tunnel Failure or Fire	No	No proposed tunnels.	N/A	N/A	No
6.3	Dam Failure	No	No proposed dams.	N/A	N/A	No
6.4	Flood Defence Failure	No	Mitigation has been included for all flooding events and is identified in the	Proposed development users	Yes – Appendix 8A FRA	

		Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	Potential Receptors	Covered already in EIA? If so, where?	Continue to shortlist?
			FRA.			
6.5	Mast and Tower Collapse	Yes	No proposed masts or towers	N/A	No	No
6.6	Building failure or fire	No	The buildings have been designed to existing fire regulations and are in an area which is not considered to be vulnerable to fire from within. As part of the operation of the building, fire safety requirements must be met before the building can be occupied.	Proposed development users	No	No
6.7	Utilities failure (gas, electricity, water, sewage, oil, communications)	Yes	There are a number of utilities directly affected by the proposed development - including gas pipelines. These will be diverted and remain in the vicinity of the proposed development. Diversions will be done in consultation with the relevant statutory bodies.	Proposed development users	No	No
7	Industrial Accidents					
7.1	Defence industry	No	None in the study area	N/A	No	No
7.1	Energy Industry (fossil fuel)	No	None in the study area	N/A	No	No
7.1	Oil and gas refinery/storage	No	The proposed development is	N/A	No	No

		Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	Potential Receptors	Covered already in EIAR? If so, where?	Continue to shortlist?
			not with the port area and is unlikely to be affected in such events.			
7.1	Food Industry	No	While the proposed development is expected to have food preparation areas, it will not directly effect food production.	N/A	No	No
7.1	Chemical Industry	No	None nearby	N/A		
7.1	Manufacturing Industry	No	The proposed development is not with the area and is unlikely to be affected in such events.	N/A	N/A	No
7.1	Mining Industry	Yes	No history of mining on the site.	Construction workers / Proposed development users	N/A	No
8	Crime/Civil unrest					
8.1	Crime or Civil Unrest	No	No more vulnerable than any other infrastructure.	N/A	No	No
8.2	Cyber attacks	Yes	Technology could be vulnerable to a cyber attack. However the types of likely attack will be based on tenant equipment but not hardware installed on the site.	N/A	No	No
9	Disease					
9.1	Human disease	No	No more vulnerable than any other mixed use	N/A	No	No

		Relevant for long list?	Why? (note if risk to the project, or project exacerbates risk)	Potential Receptors	Covered already in EIAR? If so, where?	Continue to shortlist?
			development.			
9.2	Animal and Plant disease	Yes	No more vulnerable than any other mixed use development.	N/A	No	No

1.1.3.2 Stage 2

In general major events, as they relate to the proposed development, will fall into three categories:

- Events that could not realistically occur, due to the type of development or its location;
- Events that could realistically occur, but for which the proposed development, and associated receptors, are no more vulnerable than any other development; and
- Events that could occur, and to which the proposed development is particularly vulnerable, or which the proposed development has a particular capacity to exacerbate.

The screening stage was completed primarily to identify this third group of major events and where issues have been identified, they are assessed within the EIAR chapters or there is evidence in the EIAR chapters to identify they are a not an issue.

1.1.3.3 Stage 3

Stage 3 of the assessment requires more detailed consideration of the short list of major events developed during Stage 2, though this may only mean that the risk needs to remain on the design risk register until it is closed out through design. Major events that were included on the short list and which have subsequently been considered in more detail are presented in Table 3.

The assessment of the risks from the major events is also outlined in this table. The significance is based on the criteria present in Table 3.

Table 3 : Major Events Shortlisted for Further Consideration

Major Event	Reason for consideration on Short List	Potential Receptors	Mitigation	Residual Significant
Floods	Both the vulnerability of the project to flooding, and its potential to exacerbate flooding, are covered in the FRA and are also reported in EIA terms in Chapter 8 Water of the EIAR, both in terms of the risk to the proposed development and increased risk due to the proposed development.	Proposed development users, property and people in areas of increased flood risk.	As described in Chapter 8: Water.	Not significant