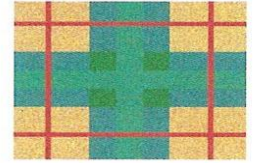


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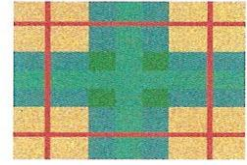
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**Application for planning permission for aviation fuel  
pipeline Dublin Port to Dublin Airport**

**Applicant: Fingleton White**

**Item: Planning Report**



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**Date: 07.04.2015**

**Re: Application for planning permission for aviation fuel pipeline Dublin Port to Dublin Airport**

**Applicant: Fingleton White**

**Item: Planning Report**

## **1.0 INTRODUCTION**

### **1.1 The Need for an Aviation Fuel Pipeline**

1.1.1 Dublin Airport is a gateway of prime importance to Ireland. It serves incoming and outgoing commercial passenger and freight travel, incoming and outgoing tourist and leisure passenger travel. It is of high level importance to the Irish economy and to Irish society.

1.1.2 Dublin Airport is a state owned facility, operated and managed by the Dublin Airport Authority. The Authority's Annual Report 2013 advises that the Airport is the main gateway for the State, accounting for 82% of international traffic to and from the country last year. The airport experienced 6% growth in 2013, to handle 20.2 million passengers. That was its third successive year of growth in post recessionary times. Passenger numbers are back to 2009 levels. In 2013, Dublin Airport performance outpaced the EU as a whole, which evidenced 1% growth.

1.1.3 Clearly, sustainable, secure and safe delivery of airplane fuel is a key service to the airport. Airport fuel is currently delivered to the airport from Dublin Port by road tankers. In 2013, demand for aviation fuel at Dublin Airport stood at 630 million litres. With tanker capacity at 40,000 litres per vehicle, the service was delivered by c.15,750 tanker round trips between the Port and Airport. Demand is expected to grow to 1,450million litres by 2035.

1.1.4 Internationally, pipelines are the standard means of supplying aviation fuel to large airports. The United Kingdom Petroleum Industry Association has stated

*"Pipelines are an efficient and safe means of moving large volumes of refined products from a refinery to a storage terminal....once installed underground, pipelines offer substantial environmental and safety benefits, not least from the elimination of road tanker journeys or*

*transportation by rail or sea...Distribution of jet fuel to major airports is mainly done by pipelines which link tankage at the airport ....”<sup>1</sup>*

1.1.5 Fingleton White proposes to provide an aviation fuel pipeline to transport fuel from Dublin Port to Dublin Airport, to offer an alternative to the existing tanker-based delivery. The pipeline will be usable by all fuel companies and deliverable to all airline end users at the airport. With a capacity to deliver up to 2,700 million litres per annum, the pipeline will have be able to serve the entire demand of the airport, well beyond a 20 year time horizon.

## **1.2 The Benign Nature of Aviation Fuel**

1.2.1 Contrary to popular perception, aviation fuel is a relatively benign substance. It is a kerosene, the fuel that is used in domestic central heating systems, stand-alone domestic heaters, camping stoves and tilley lamps. Domestic central heating supplies of kerosene are routinely stored in tanks in gardens. Smaller amounts e.g. for camping and other domestic purposes, are stored in garages or other stores within dwellings. Kerosene is stable in normal conditions. Vapour will not form unless the temperature is above 38° - 42° C. Ambient air temperature in Ireland has not exceeded 33° C from available records. An ignition source is required in order for the vapourised fuel to catch fire.

1.2.2 Popular perception of aviation fuel as a volatile fuel is perhaps coloured by images of crashing airplanes catching fire. When a plane crashes, the pressure of the Jet A1 (Kerosene) fuel increases and the fuel vaporises. The airplane engine is burning fuel in the ordinary course of its operations, in order to fly. The engine becomes the ignition source. The vaporised kerosene goes on fire.

1.2.3 These pre-conditions do not arise with the carriage of Jet A1 in a pipeline. The pipeline runs underground. No ignition source is present.

## **1.3 Planning Permission Already Granted to Fingleton White for Aviation Fuel Pipeline**

1.3.1 On 03.10.2001, Fingleton White secured planning permission from An Bord Pleanala for an aviation fuel pipeline for exactly the same purpose as that now proposed (ref.no. PL29N.122692). Dublin City Council had issued a decision to grant permission (ref. No. 0189/99) in respect of that section of the pipeline in its administrative area (Dublin Port to the city limit) and the appeal was a Third Party one against its decision. Permission was granted by Fingal Co. Council for that part of the pipeline in its administrative area, which ran from the city limit to Dublin Airport (ref. no. 99A/0063). The decision of Fingal Co. Council was not appealed.

1.3.2 With the tragedy of 9<sup>th</sup> September 2001, demand for air travel reduced and the provision of the pipeline was postponed. The planning permission for the pipeline lapsed.

## **1.4 Revival of Proposal for Aviation Fuel Pipeline and Revised Design and Routing**

1.4.1 Towards the end of the decade, with growth in airline travel in prospect, Fingleton White recommenced work on its proposal to provide the aviation fuel pipeline. It consulted with An Bord Pleanala as to whether the project might qualify for application directly to it under the Strategic Infrastructure Act 2006, passed since the granting of permission for the original pipeline proposal.

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<sup>1</sup> UK Petroleum Industry Association [http://www.ukpia.com/industry\\_information/distribution.aspx](http://www.ukpia.com/industry_information/distribution.aspx)

On 18.02.2010, the Bord decided that the proposal did not come within the scope of the 7<sup>th</sup> Schedule of the Planning and Development Acts 2000, as amended. The project was not of sufficient scale to qualify as “Strategic Infrastructure” i.e. not greater than 20 km. The Bord directed that the application should be made to the local authorities in the first instance.

1.4.2 Fingleton White has spent the last 3 years reviewing the route and the design of the pipeline. A route has been selected, out of 6 no. considered. A 200 mm diameter pipeline is now proposed, compared to 150 mm permitted in 2001. Wall thickness is slightly increased (12.7 mm compared to 11.91 mm permitted.) The length of the pipeline is now c.14.4 km., compared to 10 km. permitted in 2001.

1.4.3 Permission is now sought for the upgraded specification of pipeline on the selected route. Further to S. 41 of the Planning and Development Acts 2000-2015 Dublin City Council and Fingal County Council are asked to include a condition in any decision to grant permission specifying a period of ten years during which the permission will have effect. The applicants consider that a ten year time frame is required to facilitate commercial agreements with relevant stakeholders.

## **1.5 The Applicant and the Operator of the Pipeline**

1.5.1 The applicant is Fingleton White.

1.5.2 The owner and operator of the pipeline will be Independent Pipeline Company Ltd., with shareholders Fingleton White and Reynolds Logistics. Fingleton White has sufficient interest in the project to make the application.

1.5.3 Fingleton White is an engineering company with a record of management, design and construction of petroleum oil and gas infrastructure. The company was formed in 1981 and since then has been involved in many significant projects in the energy sector, in particular power generation. Fingleton White was the first company to sell CHP electricity in Ireland and the first licensee of the Commission for Energy Regulation.

Fingleton White has been involved in the design, construction and operation of a range of infrastructural projects, e.g. a 16,000 megawatt (MW) gas station, hydroelectric stations, wind farms, combined heat and power (CHP), water, oil and gas pipelines, refrigeration systems, boiler houses, district heating and broadband communication networks. Reynolds Logistics is the largest road distribution company for oil products in Ireland. They currently transport by tanker over 60% of the aviation fuel from Dublin Port to Dublin Airport. Their management service covers the entire fuel supply chain including warehousing, packed distribution, tank farm operations, interplant operations and customer deliveries.

Fingleton White has designed, constructed, commissioned and provided operational services on several significant installations involving pipelines, including:

- 14 no. CHP stations involving high pressure pipelines ranging in size up to 500 mm. and pressure up to 70 bar.
- 15 no. hydroelectric power stations with associated pipelines up to 500 mm. diameter operating at 20 bar.
- 600 mm. diameter natural gas pipeline from Belfast to Derry: total length 120 km.

- 600 mm. diameter natural gas pipeline from Curraleigh West to Midleton: total length 47 km.
- 600 mm. diameter gas pipeline from Lockerley to Marchwood UK: total length 20 km.
- 300 mm. diameter natural gas pipeline from Cork to Ballineen: total length 65 km.
- Design and construction of gas pressure reduction and metering stations: 160 no.
- Vapour Recovery Installations for oil terminals in Dublin, Cork and Galway.

1.5.4 Both companies operate emergency response facilities in relation to the existing businesses in which they engage.

1.5.5 The knowledge, expertise and experience of the two constituent firms in this owner/operator partnership are uniquely suited to the project. This engenders confidence that the project can be expertly constructed and managed.

## **1.6 The Proposed Development and the Planning Application**

1.6.1 The proposed pipeline from Dublin Port to Dublin Airport will be operated as an open access transportation system i.e. it will be open to any fuel suppliers supplying fuel to Dublin Airport.

1.6.2 The route of the pipeline is, generally, from Dublin Port, via Bond Drive, Tolka Road, East Wall Rd., Alfie Byrne Rd., Clontarf Rd., Howth Rd., Copeland Avenue, Malahide Rd. and the R139 to the Dublin City/Fingal Co. boundary. It is then via Clonshaugh Rd., the AUL/FAI grounds Clonshaugh Rd., under the M1 to Dublin Airport lands, in Fingal Co. Council's administrative area.

A separate planning application is made to each planning authority in respect of that part of the pipeline that falls within its jurisdiction.

1.6.3 The previously permitted route also followed Tolka Rd and East Wall Rd., but then headed westward via Richmond Rd. and north on Grace Park Rd., then largely following the Swords Rd. to the Airport (See Route Selection Report enclosed with the application).

1.6.4 An inlet station is required at Dublin Port and a reception station at Dublin Airport. The control room and plant will be located in small compounds, at the junction of Bond Drive/Tolka Quay Rd. in Dublin Port, within a site owned by Dublin Port Company and leased to Andrew Reynolds, and just west of the Old Swords Rd. (R132) in Dublin Airport, within a site owned by the Dublin Airport Authority..

1.6.5. A 10 year permission is sought. The 10 year permission allows time to deal with commercial aspects of the project.

## **1.7 Application Documentation**

### **1.7.1 Safety and Environmental Impact Report.**

This aviation fuel transportation proposal has been informed, first and foremost, by a report by AMEC Environment and Infrastructure Ltd. This deals with the risk of and impact of spillage and fire arising from the proposed pipeline transportation of aviation fuel. It compares those risks with risks associated with tanker transportation. It establishes that risk

of leak or rupture associated with pipeline transportation of Jet A1 fuel are low. They are lower than tanker transportation by a factor of 90 at the very minimum. The risk of fire associated with the pipeline as compared with tanker transport is lower again, due to the relative stability of the fuel, particularly when transported by pipeline.

The first AMEC report issued in 2011. It identified design, construction and routing measures for the proposed pipeline which would further minimise risk. This helped shape adjustments made to the pipeline proposal during the design phase.

The report was then reviewed in 2014 to address specifically the pipeline proposal for which planning permission is now sought. The planning application is accompanied by the 2014 AMEC report.

### 1.7.2 Design Basis Report

Fingleton White developed the design of the pipeline and trenching methods to comply with ISEN 14161, Petroleum and natural gas industries-Pipeline Transportation Systems and to incorporate recommendations of the AMEC report and address routing requirements. Their final Design Basis Report is lodged with the application.

### 1.7.3 Route Selection Report

Concurrently with the AMEC report, and informed by it, Fingleton White reviewed the pipeline route formerly permitted. Five new route options were examined and compared with the formerly permitted route. This resulted in the elimination of the formerly permitted route, due to

- engineering difficulties at Luke Kelly Bridge over the Tolka River;
- traffic congestion associated with the route;
- potential conflict with a proposal to upgrade the R132 in the vicinity of the airport;
- services congestion in the Swords Rd. at Coolock Lane, Santry River and M50 bridge.

A preliminary route selection process was engaged in with full consultation with local authority planning, roads, environmental services and parks departments and with full regard to local authority planning policy.

Routing was reviewed incrementally on further occasions, as various problems and opportunities became apparent and were addressed.

The final route selection report of 2014, which is lodged with this application, reflects the process. Local authority consultations informed the process throughout.

#### 1.7.4 Construction Plan

To deal with the logistics of construction of the c.14.4 km. pipeline, a Construction Plan has been prepared by Fingleton White. The Plan divides the route into 15 sections. It describes the construction method generally, and then specifically for each section of the route. It sets out the construction method for the routine, straight sections of pipeline within the roadway, with road crossings, junction crossings and areas where special engineering difficulties arise.

Prior to construction a detailed works programme will be drawn up by the contractor and agreed with the relevant statutory authorities.

#### 1.7.5 Traffic Management Plan

Taking the 15 sections of the route identified in the Construction Plan, traffic management plans were drawn up to manage pedestrians and vehicular traffic during the construction phase of the project.

The objective of the Traffic Management Plan is to

- Minimise disruption to the local community
- Maintain access to residential and commercial properties
- Provide safe access for pedestrians
- Maintain traffic flow, preferably two-way where possible.
- Ensure compliance with health and safety regulations.

Prior to construction, discussions will be held with the relevant statutory authority to agree any changes required to the traffic management plan.

#### 1.7.6 Outline Emergency Response Plan

Notwithstanding that the AMEC report finds that risk of an incident when the pipeline is operational is highly unlikely, an Outline Emergency Response Plan has been prepared. Fingleton White and Reynolds Logistics have the organisational capacity and expertise to deal with such emergencies. This outline plan sets out how the relevant authorities will be notified, how public health and safety will be protected, how damage will be rectified and the environment cleansed in the event of pipeline failure.

#### 1.7.7 Environmental Impact Statement

Part 1 of Schedule 5 of the Planning and Development Regulations 2001 as modified indicates that an Environmental Impact Statement must accompany a planning application for "oil and gas pipelines with a diameter of more than 800 mm. and a length of more than 40 km." The proposed development is well below the threshold. Part 2 requires an EIS to accompany an application for an oil or gas pipeline

Given the characteristics of the proposed development, through urban areas and under the Tolka River which drains to a number of Natura 2000 sites, an Environmental Impact Statement in relation to the proposed pipeline accompanies this planning application.

The Environmental Impact Statement lodged with the application identifies the likely significant effects associated with construction of the pipeline and pipeline transport of aviation fuel. It examines comprehensively the environmental impact of such effects, as required by the Local Government (Planning and Development) Regulations 2001-2014. It examines impacts under the headings –

Human Beings (Land Use and Recreation)

Human Beings (Socio-Economic)

Roads, Traffic and Transportation

Noise and Vibration

Flora and Fauna

Soils, Geology and Hydrogeology

Surface Water Quality and Drainage

Air Quality and Climate

Archaeology, Architecture and Cultural Heritage

Landscape and Visual Impact

Material Assets

It examines effects at construction, operational and decommissioning phases of the pipeline. It examines cumulative impacts with other projects and developments. It examines the interactions between impacts.

#### 1.7.8 Natura Impact Statement

The proposed development does not pass through any site designated for nature conservation, but it passes close to sites. Aspects of the development have the propensity to impact negatively on adjacent Natura sites. Scoping for Appropriate Assessment with the relevant local authorities concluded that a Natura Impact Statement should be lodged with the application and the required document is provided.

1.7.9 Thus this planning application is informed by a comprehensive set of documents which describe the proposed development in full and in detail, through all of its stages. Mitigation of potential environmental impacts has been built into the design of the pipeline development and the routing of the pipeline. The construction and traffic management plans provide further mitigation.



The environmental impact of the scheme is fully examined in accordance with statutory requirements for preparation of Environmental Impact Statements and Natura Impact Statements.

## **1.8 Planning and Environmental Issues Associated with Proposed Pipeline Development.**

1.8.1 The application documentation has facilitated identification of the planning and environmental issues associated with the pipeline. It is submitted that they are most appropriately examined under two main headings:

- Issues associated with the installed and operational pipeline.
- Issues associated with its installation or construction.

1.8.2 As stated at 1.2 above, aviation fuel is a relatively benign substance for transport by pipeline. The installed pipeline will be underground. Therefore no visual impacts are associated with it, with the exception of two control cabinets, 1400mmx1200mmx300mm adjacent to the intermediate emergency shutdown valves on the pipeline. There will be above-ground installations (AGI's) at Dublin Port and Dublin Airport. However, these will be within existing industrial areas and visual impact is not a contentious issue. Pipeline transport of aviation fuel is silent and gives rise to no odours.

Planning issues associated with the installed pipeline are

- Compliance with national, regional and local planning policy guidelines, mainly associated with the need for airport fuel supply infrastructure and the appropriateness, safety and sustainability of pipeline supply.
- Potential impact in terms of the risk to human mortality or health due to spill or fire.
- Potential impact in terms of the risk of damage to the environment due to spill or fire.
- Impact on land uses due to the need to maintain access to the pipeline.

1.8.3 The construction of the pipeline will give rise to potential impacts of a more tangible and immediate, but temporary nature. Most of the route is within the public road, at a routine cover of 1.2 m. below ground level. The pipe diameter is not large. No fuel is in the pipeline during construction. Therefore construction impacts are no different to standard pipeline laying operations that are routinely carried out by various utilities.

It could be said that the c.14.4 km. length of the pipeline has the propensity to intensify construction impacts. The routing of the pipeline will give rise to particular potential impacts.

These are issues which must be addressed at this planning stage and mitigated by the selected routing of the pipeline, management of the construction process, reinstatement after construction and decommissioning.

1.8.4 As fuel has to be carried from the port to the airport, it is reasonable to review the planning and environmental impact issues associated with the proposed pipeline method of delivery in comparison with the alternative of tanker carriage.

## **1.9 The Scope and Purpose of the Planning Report**

1.9.1 The objective of this report is to draw on the information presented in the technical reports referred to above and to arrive at an assessment of the suitability of the proposal in terms of proper planning and sustainable development.

1.9.2 To address this brief, the structure of this report is as follows:

Section 2.0 summarises the identified risks of pipeline transport of aviation fuel and the response in pipeline design.

Section 3.0 summarises the approach to route selection.

Section 4.0 examines environment through which the selected pipeline route passes

Section 5.0 examines the wider environment of the selected route.

Section 6.0 identifies relevant national, regional and local planning policy guidance.

Section 7.0 sets out developments which have been permitted along the route of the pipeline, so that the proposal can be assessed taking account of any impact on potential future adjacent development.

Section 8.0 draws on planning policy guidance and risk and environmental impact assessments to assess the suitability of the proposal in planning terms.

Section 9.0 concludes.

In the above analysis, risk assessment is summarised and only relevant impacts are referred to. The technical documents lodged with the application should be referred to for the full presentations in these regards.

## **1.10 Pre-Planning Application Consultation.**

Route selection and EIS scoping have been fully discussed with Planning, Roads, Drainage, Water and Wastewater, Environmental Services and Parks Departments of each local authority and the views of the relevant officers incorporated into the final scheme design as far as possible.

Route selection, construction methodology and programming have been fully discussed with Dublin Airport Authority and Dublin Port, as owners and controllers of lands through which the pipeline route passes. Their requirements have been reflected where appropriate in the application

documentation. Route proving within the application corridor will be carried out in consultation with these bodies to ensure that there is no materially adverse impact on existing services and assets.

The scheme has been presented to the Elected Representatives of the relevant electoral areas of each local authority. All representatives of Dublin Central and Dublin North Central areas of Dublin City Council's administrative area were invited to a presentation and discussion forum on 02.07.2014. A similar invitation to a presentation and forum was extended to the Members of Fingal Co. Council's Howth-Malahide area for 01.07.2014. Thus all Members through whose area the pipeline runs were invited to attend.

Fingleton White distributed information leaflets to all houses and properties along the route of the pipeline. Members of the public were invited to public meetings on 08. and 09.09.2014, one venue being centrally located to public in Dublin City Council administrative area and the other close to the boundary of the two authorities.

At both the Elected Members' evenings and the public evenings, full information on the proposal was on display, including a map of the pipeline route, a section of pipe, a cross-section through a typical pipe trench, full strip maps for the entire route at a scale of 1:1000. Design team members and consultant experts were on hand to discuss the nature of aviation fuel and all design, safety and environmental impact aspects of the project.

Extensive consultation with statutory and other appropriate consultees is required for the purposes of preparation of an environmental impact statement. The consultation process engaged in by Fehily Timoney for the purposes of preparation of the Environmental Impact Statement lodged with this application is set out at Section 5.4 of the document. Consultations were held with 19 officers of departments of Dublin City Council and Fingal Co. Council, with 20 bodies prescribed for the purposes of the Planning and Development Acts 2000-2014, with 13 non-government organisations and stakeholders and with 16 providers of piped services.

## **2.0 RISK OF AVIATION FUEL PIPELINE FAILURE, RISKS ASSOCIATED WITH FAILURE AND PIPELINE DESIGN**

2.1 AMEC Environment and Infrastructure U.K. Ltd. advised Fingleton White on the likelihood of leaks occurring from the aviation fuel pipeline, and their potential size and effect, in January 1999. They prepared a Safety and Environmental Impact Evaluation in December 1999. These were in relation to the proposed 150 mm. pipeline that was permitted under Dublin City Council ref. no. 0189/99 (An Bord Pleanála ref. no. 29N.122692) and Fingal Co. Council ref. no. F99A/0063.

2.2 They have given similar advices in relation to the current proposal for a revised pipeline design and routing. Their report of 2014 accompanies this planning application.

2.3 The report of 2014 is based on the pipeline being designed, constructed and operated to IS EN 14161:2011.

2.4 AMEC advise that aviation fuel is not considered a “*Dangerous Fluid*” for the purposes of U.K. Pipeline Safety Regulations for Major Accident Prevention requirements. The proposed pipeline will not be a major accident hazard pipeline.<sup>2</sup>

2.5 The AMEC report advises that the flash point of aviation fuel (the temperature at which it will vapourise) is 38°C, which is significantly above what will be the ambient temperature at which the fuel will be transported in its underground pipeline routing. No source of ignition is associated with the fuel pipeline. In the normal course of transportation by pipeline, risk of fire from aviation fuel is very low. It can be said that there is no credible risk of fire. In the normal course of operation of the pipeline, no other potential risks arise.

2.6 Problems with pipeline transport of aviation fuel arise, therefore, only with malfunction viz. the occurrence of a leak. The AMEC report assesses risk associated with a leak from a fuel aviation pipeline as:

- If a leak were to migrate to an underground, unvented void (cellar, basement, sewer, etc.) then there is a potential for build-up of vapours and potential explosion if ignited.
- Jet A1 fuel will float on any free water surface. Spilled fuel could cause harm to waterside flora and could be detrimental to water quality. (The EIS is the source of more detailed information on environmental impact associated with pipeline malfunction).

2.7 AMEC identify the main cause of pipeline leaks as third party damage (excavation for other underground services or construction, or deep ploughing in a rural context). Corrosion could be a factor. Mechanical failure of pipelines could arise due to construction faults or material defects.

2.8 To address the above, in addition to the specification set out at 1.4 above (200 mm. diameter steel piping with 12.7 mm. wall thickness ), the AMEC report assumes the following protective measures would be built into the pipeline design<sup>3</sup>:

- Depth of cover 1.2 m.
- The trench backfilled with lean mix concrete.
- Cathodic protection system to prevent external corrosion of the pipe.
- Automatic leak detection systems
- Two intermediate Emergency Shutdown valves to limit the extent of leakage in the event of rupture. These would be activated by the software leak detection system, which would initiate automatic emergency shut down, or manually in the event of a visual inspection indicating a leak.
- Fibre optic control cable laid on top of the pipe would be broken by any disturbance above the pipe, initiating emergency automatic shut-down.

AMEC advise that the above measures give a “*very high reliability of detection of pipe rupture and minimisation of volume spilled*”.

2.9 The AMEC report analyses the potential frequency of spillage from a pipeline of the specification proposed, carrying the design flow volume of aviation fuel, incorporating the safety features

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<sup>2</sup> 1.4.4 of the AMEC report.

<sup>3</sup> 2.4

described above.<sup>4</sup> It projects a pipeline failure rate of 1 in 5130 years. Maximum spill size is 103,000 litres.

Looking in more detail at the likelihood of spill sizes of various scales, the report estimates the likelihood of a minor leak (pinhole) at 1:10,577 years, a major leak (hole) at 1:14,292 years and a full bore rupture at 1:34,903 years. The estimated potential failure rate of 1:5,130 years is the combined risk of occurrence of any leak incident.

However, the report advises that it is likely that any leak would be identified by the detection and supervisory systems before substantial volumes were released. Therefore, the likelihood is that any leak from the pipeline will be low in volume. The probability of a major leak of airline fuel from the pipeline is very much lower than 1 in 5,130 years.

2.10 The potential that fuel could leak to a basement or underground void and form a flammable atmosphere is unlikely. The low flash point of aviation fuel, well above ambient temperatures, render this unlikely and the pipeline does not run adjacent to or across any basements. Even if the fuel did leak to a void, and a sufficient temperature was reached such that a vapour formed, an ignition source would then be required in order for the fuel to catch fire. The probability of a fire occurring due to leaked aviation fuel is significantly lower than 1:5,130 years.

In summary safety systems incorporated in the pipeline design will result in very low risk of spillage and associated environmental damage. The potential for aviation fuel, transported by pipeline, to spill and then give rise to a fire, with consequent risk to human life or health, is very much lower again.

2.11 The AMEC report carries out a similar exercise for transport of the same volume of aviation fuel by tanker.

It notes that the Port Tunnel has been constructed since the grant of permission for the former aviation fuel pipeline. Aviation fuel tankers use the tunnel route to reach the airport. Notwithstanding that the fuel is transported at temperatures well below its flashpoint, an accident in the tunnel involving a tanker could give rise to an ignition or other heat source which could set the fuel alight.

Tankers carry a risk of injury and fatality as a result of a road traffic accident, not particularly associated with the fuel carried. Therefore tanker carriage is inherently higher risk than pipeline carriage.

The report finds a potential failure frequency for tanker carriage of 1 in 32 years. This is 160 times the risk associated with pipeline carriage. Maximum spill size is considerably less, at 38,000 litres. However, the report concludes *“In summary, although the average spill size from the pipeline is higher than by tanker, the failure frequency is very much lower giving a much reduced risk.”*

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<sup>4</sup> See Chapter 3

### **3.0 ENVIRONMENTAL IMPACT AND ROUTE SELECTION.**

3.1 When reviewing the route of the formerly permitted pipeline for the purposes of the new pipeline proposal, Fingleton White identified a number of factors (outlined at 1.7.3 above) which prompted a search for an alternative. The alternatives identified, the process of assessment of the alternatives and the criteria for selection of the final route are set out fully in the Route Selection Report of Fingleton White, lodged with the application and also included as Appendix 2.2 of the Environmental Impact Statement.

3.2 A desk top survey identified potential route corridors. 6 routes were identified, including the original route. They were in summary as follows:

#### **Option 1**

Dublin Port, Tolka Quay Road, East Wall Road, Poplar Row, Luke Kelly Bridge, Richmond Road, Grace Park Road, Griffith Avenue, Swords Road, Corballis Road and Dublin Airport.

#### **Option 2**

Dublin Port, Tolka Quay Road, East Wall Road to junction with Faith Avenue, Tolka River Crossing, Fairview Park, Malahide Road (R107), Griffith Avenue, Swords Road, Corballis Road and Dublin Airport.

#### **Option 3**

Dublin Port, Tolka Quay Road, East Wall Road to junction with Faith Avenue, Tolka River crossing, Fairview Park, Malahide Road (R107), Kilmore Road, Oscar Traynor Road, Clonshaugh Road (South), Malahide Road (N32), Clonshaugh Road (North), AUL/FAI Sports Grounds, DAA Long Term Car Park (Red), ALSAA Sports Complex, Corballis Road and Dublin Airport.

#### **Option 4**

Dublin Port, Bond Drive, Promenade Road, Tolka Estuary Crossing, Clontarf Road, Castle Avenue, Howth Road, Collins Avenue East, Clanree Road, Malahide Road (R107) Kilmore Road, Oscar Traynor Grounds, M1 Crossing, DAA Long Term Car Park (Red), ALSAA Sports Complex, Corballis Road and Dublin Airport.

#### **Option 5**

Dublin Port, Tolka Quay Road, East Wall Road to the junction with the John McCormack Bridge, Tolka River crossing, Alfie Byrne Road, Clontarf Road, St Anne's Park, Howth Road, Raheny Church car park, St. Malachy's Park, Lough Derg Road, Springdale Road, St Malachy's Park, Malahide Road (R107), Darndale, Moatview, Belcamp Park, Malahide Road (N32), Clonshaugh Road (North), AUL/FAI Sports Grounds, M1 Crossing, DAA Long Term Car Park (Red), ALSAA Sports Complex, Corballis Road and Dublin Airport.

#### **Option 6**

Dublin Port, Tolka Quay Road, East Wall Road to the junction with the John McCormack Bridge, Tolka River crossing, Alfie Byrne Road, Clontarf Road, Howth Road, Copeland Ave., Malahide Road (R107), Malahide Road (N32), Clonshaugh Road North, AUL/FAI Sports Grounds, M1 Crossing, east of DAA Long Term Car Park (Red), east, south and west of Eastlands car-hire compound, ALSAA Sports Complex, Corballis Road and Dublin Airport.

3.3 Each route was examined in relation to the following criteria:

- Public Health and Safety
- Impact on the local community
- Proximity to occupied buildings
- Planning and Land Use Issues
- Potential Impact on Habitats, Environmentally Designated Areas, Wildlife
- Potential Impact on Archaeology and Cultural Heritage
- Visual Impact
- Optimisation of Pipeline Construction and Operation
- Cost and Programme.

3.4 The routes were evaluated in consultation with Planning, Roads and Traffic, Drainage, Water and Wastewater, Environmental and Parks and Landscape and Heritage Departments of Dublin City Council and Fingal Co. Council.

3.5 The Original Route, Option 1, was eliminated due to unacceptable engineering and traffic management difficulties in crossing the Tolka River at Luke Kelly Bridge.

Option 2 was eliminated due to unacceptable traffic and underground service congestion along Swords Road.

Option 3 - A high level of services congestion was identified along the recently reconstructed Clonshaugh Road. Traversing parks would impact on amenity of users. This route was eliminated..

Option 4 was eliminated due to unacceptable environmental and engineering issues in crossing the Tolka Estuary within a designated SAC. The depth required at both sides of the Irish Rail railway crossing at Collins Avenue would result in unacceptable levels of traffic impact.

Option 5 was eliminated because the route traversed parks and amenity areas. The necessity to maintain a permanent way leave through these areas might curtail future park and amenity development and impact on the amenity value of these areas .

3.6 Option 6 was recommended as it would have minimal impact on designated sites. No Natura 2000 sites are within the planning corridor. There is only 1 no. site mentioned in the Record of Monument and Places within the planning corridor. The route involves no impact on public amenity areas and public space. Over 75% of the pipeline is laid in roads with 3 lanes or more. This will lessen the construction impact on the human environment and will allow for effective traffic management during construction.

3.7 The route selected is justified by reference to the AMEC report. That concludes that risk of rupture and spillage from the pipeline is low. Due to the high flash point of aviation fuel, risk to human health or risk of human fatality is extremely low. The major impacts resulting from a release are environmental. The selected route avoids sensitive environments.

#### 4.0 THE PROPOSED DEVELOPMENT AND THE PIPELINE ROUTE IN DETAIL.

4.1 Aviation fuel arrives in Dublin Port by tanker. It is transferred to storage tanks via the Common Oil Pipeline, (COP) a Port owned and operated pipeline system. The storage tanks are owned by the fuel suppliers.

4.2 Development the subject of this planning application commences with an inlet station which will receive fuel from the storage tanks via the COP . The inlet station will be located on the east side of Bond Drive, within a site in the ownership of Dublin Port Authority and leased for 99 years to Andrew Reynolds. It will comprise a control building, floor area 46m<sup>2</sup> and height 3.25 m., and ancillary pumps and pipework. The entire will be enclosed in a compound of 19 m. x 22 m. approx. (0.042 ha.), bounded by a 2.4 m. high fence. This is the Dublin Port above-ground installation (AGI).

4.3 From the inlet station the pipeline, laid in the public road, routes via

Bond Drive,

Tolka Quay Rd.,

East Wall Rd.,

Alfie Byrne Rd.,

A short section of Clontarf Rd., to reach Howth Rd.

Howth Rd.

Copeland Ave.,

Malahide Rd. to the junction with the R139

R139

Clonshaugh Rd.

On the north boundary of the Athletic Union Sports Ground, Clonshaugh Rd.

Under the M1

Via Dublin Airport lands and roadways to Dublin Airport AGI within the existing loading and storage facilities.

See Drawing no. [0362/D/01/G/0005](#) lodged with the application.

4.4 The Dublin Airport Reception Station will comprise, a control building, floor area 9m<sup>2</sup>, height 3m., and ancillary pipework. The total reception area is 470m<sup>2</sup> (0.047 ha.) It will be located within the airport aviation fuel storage depot at Corballis Rd., just west of its junction the Old Swords Rd. The site is owned by Dublin Airport Authority . No vehicle parking or w.c. facilities are required within the facility, as these are available in the wider fuel storage depot and accessible to the applicant and pipeline operator.



4.5 Generally, the pipeline will be laid in the public road. One section routes through private open space (crossing of Athletic Union/ FAI grounds at Clonshaugh.) At crossings under the Tolka and Santry rivers (see 4.7 below) the pipeline routes for very short lengths under public open space. Within the Dublin Airport area, south of Eastlands car-hire compound, the route is along the northern boundary of the 9.45 ha. site of the temporary construction compound provided to facilitate the expansion of the airport – effectively to facilitate the construction of Terminal 2 ..

The standard method of laying the 200 mm. diameter, 12.7 mm. wall thickness, pipeline with its 1.2 depth of cover, lean mix concrete backfill and safety features incorporated, are described in the Construction Plan prepared by GMC and Chapter 3 of the Environmental Impact Statement.

4.6 In the public road, the route corridor is the limit of the public road (road, verges, foot-paths).

The proposed route has been selected with the benefit of a review of information available on the nature and location of known services in the relevant roadways and in consultation with relevant utility providers. The final location of the pipeline within the available corridor will be determined by slit trenching prior to construction to finally prove the location, routing and nature of existing services and the best location for the pipeline. The exercise will be carried out in consultation with the relevant planning authority. The objective will be to avoid damage to any existing services during the construction phase of the pipeline project and to facilitate future management of the pipeline. Fingal Co. Council, in the final pre-planning consultation, advised, in particular, that there is a 600 mm. asbestos cement watermain in the Clonshaugh Rd. which must be maintained free of damage during any construction works. Slit trenching will uncover its precise location and will facilitate identification of a positioning for the pipeline at maximum remove from the 600 mm. watermain. The route proving in the vicinity of the pipe and the selection of the route for the proposed fuel pipeline will be carried out in consultation with Fingal Co. Council.

Where the pipeline is to be laid in open space, the route corridor is an 8 m. wide strip.

The route corridor is shown outlined in red on the set of strip maps that accompany the planning application (REF. DWG. NOS. 0362-D-02-G-0003 to 0362-D-02-G-0044.)

4.7 There are points where the laying of the pipeline will encounter Special Engineering Difficulties. Each will involve a specialised design solution and, in some cases, consents from owners of the features encountered. Seven are river or stream crossings. The Tolka River is in natural bed. The Santry River is in a concrete open channel, the Mayne River, Cuckoo Naniken, Wad and Kilbarrack streams are culverted. Two are road infrastructure – the pipeline crosses under the M1 close to Dublin Airport and crosses under the Old Swords Rd. within Dublin Airport lands. Trenchless technology is used in all of these circumstances. The pipeline will cross over the Dublin Port Tunnel. The final special engineering difficulty is the crossing under a railway bridge at Clontarf.

The locations and cross-sections of proposed works are shown in the lodged drawings as follows:

<b>Drawing</b>	<b>Number</b>	<b>Title</b>
0362-D-07-C-	001	Tolka River Crossing
	002	Port Tunnel Crossing
	003	Santry River Crossing
	004	Mayne River Crossing
	005	Cuckoo Stream Crossing
	006	M1 Motorway Crossing
	0007	Wad River Crossing
	0008	Naniken River Crossing
	0009	Kilbarrack Sream Crossing
	0010	Swords Rd/Crossing

4.8 The two no. intermediate Emergency Shutdown valves will be located on the Malahide Rd. (R107) in the vicinity of the entrance to Clontarf Golf Club (see strip map 0362/D/02/G/0016) and on the R139 at Belcamp Park (see strip map 0362/D/02/G/0033). As described above, each will have an associated above-ground control box measuring 1400 mm. x 1200 mm. x 300 mm. For an overview of their locations, see Route Map Drawing no. 0362/D/01/G/0007.

4.9 Construction depots may be set up by the contractor at two locations along the route. Possible locations are in Dublin Port and the Malahide Industrial Park. The contractor may use their own facilities or may use storage facilities adjacent to the pipeline route. In the former case, planning permission is not an issue. In the latter case, the proposed land use would be exempted development (Class 16, Part 1, Schedule 2, of the Planning and Development Regulations 2001). A total of 600 pipes and associated fittings, requiring 25 trips from the Dublin Port, will be delivered to each depot. Plant and equipment will be housed overnight at the depots and refuelled as necessary. No material from the excavation or for trench backfilling will be stored in these depots. On completion of the pipeline works the depots will be returned to their original condition.

4.10 For construction purposes the pipeline route will be divided into four separate working zones. Construction will be carried out simultaneously in each zone. The route is divided into 15 sections for construction purposes (See Construction Plan). It is envisaged that an average of 24 m. will be laid each day by each team. The trenches will be backfilled and temporarily reinstated each evening. It is expected that no property will be directly affected by construction works for more than 2 days.

4.11 It is intended that pipeline construction works will focus on the more heavily trafficked sections of road during July and August, when traffic density is reduced due to school holidays.

Works within the airport area will take place outside times of airport peak usage, which will be determined by agreement with daa (Dublin Airport Authority).

4.12 The hours during which pipeline construction will take place will be discussed with the local authority to ensure that work on the pipeline can progress efficiently while ensuring that traffic disruption caused by the work of pipeline construction is within acceptable limits. This matter is dealt with more fully at par. 3.1.4 of the E.I.S.

4.13 On completion of pipeline construction, all parts of the route corridor, whether in the public road, grass verge, footpath or through open space, will be fully reinstated.

4.14 The pipeline route must remain accessible for inspection and repairs if necessary. For most of its length it is in public road and right of access is not at issue. A permanent right of way will be reserved over the pipeline route as it passes through the privately owned AUL/FAI grounds at Clonsaugh Rd. Permanent wayleaves, if required, will be reserved over the pipeline as it routes through Dublin Port and Dublin Airport Authority property.

## **5.0 THE PIPELINE ROUTE AND THE WIDER ENVIRONMENT**

**(See Appendix A: Extracts from Dublin City Council and Fingal Co. Council Development Plan maps, showing the pipeline route, which will assist in reading SS. 5.0 and 6.0 of this report.)**

5.1 The Dublin Port Inlet Station compound is located on Bond Drive., on land in the ownership of Dublin Port and leased to Andrew Reynolds for 99 years. The wider vicinity is an industrial setting - land used for port related storage and industrial activities.

5.2 The route from the Inlet Station westward via Tolka Quay Rd. to the Port's western limit at the junction of Tolka Quay Rd./East Wall Rd./Bond Rd., is within the Port landholding and environment.

5.3 As it routes westward, under East Wall Rd., the route is bounded on the north side by lands predominantly in industrial use. A significant number of sites are vacant brownfield lands or are underdeveloped. Significant development/redevelopment can be expected in the future.

Close to Alfie Byrne Rd. is a recently constructed food discount store and vehicle service station.

On the south side of East Wall Rd. are principally older, high density, low rise residential areas, interspersed with some local commercial uses (shops and pubs). There are also industrial uses and, at the Alfie Byrne Rd. end, modern office development. At the junction of Bond Rd./M1 tunnel access is a large site with potential for significant redevelopment.

5.4 As it routes north-eastwards under Alfie Byrne Rd., the route encounters the first special engineering difficulty – crossing under the Tolka (See detail in Drawing 0362/D/07/C/0001 of Fingleton White). Alfie Byrne Rd. passes through public open space, routing over the Port Tunnel (SED no. 2. See Appendix D of AMEC Safety and Environmental Impact Report lodged with the application for technical details of the routing of the pipeline over the Port Tunnel). The open space

on either side of Alfie Byrne Rd. includes active playing fields and passive open space. The open space is bounded to the east by the Tolka River/Estuary and Dublin Bay. To the west is the D.A.R.T. line with its Clontarf station.

5.5 The pipeline is then routed westward for a short length in Clontarf Rd., with the aforementioned open space on its south side and housing on the north side. This stretch includes the third special engineering difficulty – crossing the D.A.R.T. line and Clontarf Bridge (see strip map no. 0362/D/02/G/0011).

5.6 The routing then turns north-eastward for 300 m. in Howth Rd., bounded by quality period housing. It then runs under Copeland Avenue, with housing on either side, to reach Malahide Rd.

5.7 The pipeline is then routed north-eastward under the Malahide Rd. for a distance of 4.5 km., to its junction with the R139 at Clare Hall.

At the southern end, the pipeline route in the Malahide Rd. is adjoined to the east by Clontarf Golf Course and to the west by Marino Casino in its landscaped setting, and Nazareth House residential care home.

To its junction with Greencastle Rd., the character of Malahide Rd. becomes that of a major urban distributor road, bounded by frontage housing and extensive residential areas. These are punctuated with neighbourhood retail malls and institutional services (churches, schools) and neighbourhood open spaces.

From Greencastle Rd., the Malahide Rd. pipeline route alters. The road becomes a dual carriageway, with housing backing on to it on the east side and a large industrial estate on the west side. There is a low density housing enclave adjoining the Road within the industrial area.

From Blunden Drive to the 132 junction, the west side of the Malahide Rd. is bounded by open space and the Darndale high density, low rise residential area. To the east are playing fields, then mixed commercial uses, including a petrol filling station and Clare Hall shopping centre.

5.8 The pipeline route then heads west in the R139. This is the city north fringe area – emergent urban landscape. At the junction of the Malahide Rd. and the R139, the south-east and north-west corners are developed. Clare Hall shopping centre is to the south-east of the junction and the Hilton Hotel and associated shopping complex to the north-west. This is adjoined to the west by a business park.

The south-west quadrant remains undeveloped, with the exception of an apartment complex.

Thereafter the south side of the R132 is developed. The expanses of Darndale and Belcamp Parks line the eastern and western ends, with a residential and traveller accommodation enclave between. The north side of the R139 is as yet largely undeveloped, but development is planned – see below.

5.9 From the junction of the R139 with Clonsaugh Rd., the pipeline turns north, running under Clonsaugh Rd. to enter Fingal Co. Council's administrative area. At the roundabout junction, on the west side is the Bewley's Airport hotel development. A petrol filling station is under construction to the north of the hotel. Otherwise, Clonsaugh Rd. runs through an undeveloped rural area with sporadic housing. The route encounters the Mayne River crossing at the roundabout junction of the

R139 (see Drawing 0362/D/07/C0004) and Clonsaugh Rd. and the Cuckoo Stream crossings c. 1 km. further north (see Drawing no. 0362/D/07/C0005).

Some 0.5 km. north of the R139, on the west side of the Clonsaugh Rd., is the Athletic Union sports grounds. The pipeline is routed westward under the grounds, hugging their north boundary.

5.10 The pipeline route then encounters the M1 motorway, overcoming the special engineering difficulty with trenchless routing under the road (See Drawing no. 0362/D/07/C/0006).

5.11 On the west side of the M1, the pipeline runs under roadway and lands in daa ownership.

The route runs east of the Red Car-Park, east, south and west of Eastlands car-hire compound, in the car-park or road margin of ALSAA sports facility. Adjacent land uses are airport related car-parking to the west and north of the route, airport related industrial and storage uses to the south, and the ALSAA sports facility. The pipeline then negotiates under the final special engineering difficulty no. 8, the Old Swords Rd., to arrive at the airport AGI. (Strip maps. 0362/D/02/G 0042 - 0044) Drawing no. 0362/D/07/C/0010

## 6.0 PLANNING POLICY

### 6.1 National Planning Guidance Policy

6.1.1 In national planning policy guidance, there is no reference to an aviation fuel pipeline as such. The importance of the airport is, however, clearly supported.

6.1.2 In the National Development Plan 2007-2013, still current despite its apparent expiry date, Ch. 7 *“Economic Infrastructure Priority: Air Transport Sub-Programme”* recognises the three State airports (Dublin, Cork, Shannon) as key to the overall transport system, providing internal transport services and vital international access to and from the island of Ireland.

*“The main government policy objective for the State airports...is to ensure that they put in place sufficient infrastructure capacity to meet growing air traffic demand...this particularly important in the case of Dublin Airport because of its international gateway status for the capital city.”*

It notes the development of Terminal 2 and Pier D, yet states that further terminal capacity will be required by the mid to end of the decade.

6.1.3 Fig 2.1 of the National Spatial Strategy 2002-2020<sup>5</sup> recognises Dublin as a national air hub and as the main international access to and from Ireland. The primacy of Dublin Airport as pivotal to the overall well-being of the country is noted. Policy at Box 3.2 is to *“Facilitate the national roles of Dublin Airport and Dublin Port”*.

At p.62 it states *“For Ireland to have a globally competitive but regionally integrated economy, effective connections to the world are vital”*. The primacy of Dublin Airport in this regard is noted.

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<sup>5</sup> This policy document is officially abandoned, pending review and replacement. However, it informs regional policy and has not been replaced. It is routinely referenced in planning reportage.

6.1.4 In “Smarter Travel: A Sustainable Transport Future, ” Chapter 6 notes the thrust of the document to reduce car dependence and car use generally in the interest of sustainability. However, recognising the inevitability of motorised transport, it considers “it is appropriate to propose additional actions to improve the efficiency of the motorised means of transport. The focus of this Chapter, therefore, is on measures to save energy and reduce emissions from motorised travel by land, sea and air.” The importance of air travel to Ireland is acknowledged

*“As an island nation with an open economy, aviation provides a key transport link for us. Connectivity and access through international and regional airports are vital for our tourism industry, which generated €4.9 billion revenue in 2007 from foreign visitors and employs some 322,000 people in the tourism and hospitality sector.”*

## **6.2 Regional Planning Policy Guidance**

6.2.1 The vision at par. 2.1 of the Regional Planning Guidelines for the Greater Dublin Area 2010-2022 sees Dublin as *“the capital city of Ireland and a major European centre, competing with other EU cities and serving a wide range of international, national regional and local needs....The Greater Dublin Area, through its port and airport connections will continue to be the most important entry/exit point for the country as a whole, and as the Gateway between the EU and the rest of the world. Access to and through the GDA will continue to be a matter of national importance.”*

6.2.2 Par. 3.5.6 recognises the importance of the airport to the economic policy for the Greater Dublin Area *“An efficiently functioning, well connected airport is a key competitiveness factor for Dublin, the wider region and the state.”*

6.2.3 Par. 6.3.3 documents airport development, noting throughput of 23.5 million passengers in 2008 and projecting a rise to 30 million for 2020.

6.2.4 Recognising the potential environmental impact of developments, Policy PIR 10 is *“Plans and projects associated with provision of transport, airport or port development, leisure or recreational that have the ability to impact negatively on Natura 2000 sites will be subject to the Habitats Directive Assessment.”* CHECK WORDING.

6.2.5. 2030 Vision, the National Transport Authority’s strategic transport plan for the Greater Dublin Area does not deal with air transport.

## **6.3 Local Planning Policy – Dublin City Council Development Plan 2011-2017**

6.3.1 Par. 2.1 advises *“this development plan sets out a new approach to meet the needs and aspirations of the citizens of Dublin and the country in the long term. The approach is based on the principles of sustainability and thematic integration.....This philosophy for the future planning of the city has evolved over recent years and takes on board global and national concerns, together with inputs from the development plan consultation process. At global level there is increasing concern about climate change, carbon emissions and depletion of the earth’s resources. At national level, the Climate Change Strategy has been introduced. Dublin City Council has taken a number of initiatives*

*such as the Climate Change Strategy for the City, which sets out a series of actions to reduce the city's carbon footprint."*

6.3.2 Emphasising the sustainability theme, part. 2.3 states that Dublin must now make the transition to a low-carbon sustainable city. "The evidence and costly implications of not doing so are indisputable and the benefits of a more sustainable city are numerous. *"Dublin must make the transition to a low carbon and ultimately to a post-carbon economy to become a competitive, resilient and sustainable city."*

6.3.3 The Core Strategy of the Plan incorporates the principles enunciated in the National Spatial Strategy and the Regional Planning Guidelines for the Greater Dublin Area, as outlined above.

6.3.4 Strand 2 of the Core Strategy "A smart city, creating real, long term economic recovery" notes that, for the first time the 4 (Dublin) local authorities have collaborated to produce the "Economic Development Action Plan for the Dublin Region". It recognises three innovation corridors, one of which is from the City to the Airport. It recognises that long term economic recovery involved strengthening the role of Dublin as the main economic engine of the State and the importance of putting Dublin at the heart of the Region.

6.3.5 Under the heading "Movement and Transport", par. 5.2.0 states that

*"Dublin City Council is committed to providing and delivering infrastructural services, which will enhance the quality of the city's environment and also facilitate sustainable economic development. ...Infrastructural requirements and issues relating to energy supply and telecommunications, while not the direct remit of Dublin City Council have implications for planning and development."*

Par. 5.2.4.15 states that the development of a secure and reliable energy network is recognised as an important element not only for supporting economic development but also to provide for the needs of all sectoral interests.

6.3.6 Dealing with "Revitalising the Economy" Chapter 9 notes the importance of an EU-wide and global outlook to transform the Dublin Region economy. The importance of inward investment and attraction of workers from the world stage is recognised.

Par. 9.2 emphasises the importance of tourism, noting that between 1998 and 2008 numbers of overseas visitors almost doubled. Eight out of ten tourist attractions in the state are in Dublin. The importance of our exports is noted. A challenge is vulnerability to global competition. Policy RE4 is to take a positive and pro-active approach when considering the economic impact of major planning applications to support economic development, enterprise, employment growth and deliver high quality outcomes.

Par. 9.4.8 states that attracting visitors, international students, conventions is crucial to economic success, including the global connectivity of the city.

6.3.7 The Plan contains policies protective of the environment. These are referred to in the EIS and are more central to the discussion within that document.

6.3.8 Focussing on the more micro-level planning, and on the aviation fuel pipeline proposal specifically, the route is largely in the public road, but passes through city neighbourhoods with

varying land-uses as outlined above. The amenities of these neighbourhoods are protected by Dublin City Council zoning policies. The same policies govern how underdeveloped or redevelopment lands adjacent to the pipeline are likely to develop. Protection of the amenities and development potential of city neighbourhoods are matters for consideration by the planning authority in the making of its decision on the subject planning application.

The neighbourhoods through which the pipeline passes are zoned variously, in the Dublin City Development Plan 2011-2017 (see Appendix A):

Z1 – to protect, provide and improve residential amenities.

Z2 – to protect and/or improve the amenities of residential conservation areas.

Z3 - to provide for and improve neighbourhood facilities.

Z4 – to provide for and improve mixed services facilities.

Z6 – to provide for the creation and protection of enterprise and facilitate opportunities for employment creation.

Z7 – to provide for the protection and creation of industrial uses and facilitate opportunities for employment creation.

Z9 – to preserve, provide and improve residential amenity and open space and green networks.

Z11 – to protect and improve canal, coastal and river amenities.

Z14 – to seek the social, economic and physical development and/or rejuvenation of an area with mixed use of which residential and “Z6” would be the predominant uses. These are areas where comprehensive development or redevelopment proposals have been or are being prepared. They have capacity for significant development. Most Z14 lands are identified as Strategic Development and Regeneration Areas, each with its specific set of proposals.

Z15 – to provide for institutional, educational recreational, community, green infrastructure and health uses. The purpose of the zoning is to protect existing and provide for additional institutional and community uses. As sites can be underdeveloped, or can become surplus to needs, partial development or redevelopment for alternative uses can be contemplated, subject to specific pre-conditions and conditions. Such uses can include residential and training facilities.

In the vicinity of the pipeline route there are also location specific, development plan objectives. Following the route subdivisions recognised at 5.0 above, the land use zones through which the pipeline route passes, and relevant local objectives are described below.

As it progresses along Alfie Byrne Rd., the pipeline will pass over the Port Tunnel. Appendix 9 of the Plan requires that a suitably qualified structural engineer must prepare a development assessment if development lies over the tunnel corridor area. If the proposal is within 6 m. of the outer edges of the tunnel bore, a suitably qualified tunnelling engineer must prepare the assessment. (See Appendix D2 of Amec “Safety and Environmental Impact Report” lodged with the application for illustration of the tunnel structure and design detail. It shows the relationship between it and the



proposed pipeline and how the proposed development responds to the concerns of Appendix 9 of the Development Plan.)

### **6.3.9 Dublin Port AGI – Tolka Quay Rd.-East Wall Rd.**

Dublin Port’s landholding is homogenously zoned Z7.

The only relevant local objectives identify various SEVESO sites – industrial sites with implications for the control of major accident hazards. EU Directive 96/82 aims to prevent major accident hazards involving dangerous substances and chemicals and to limit their consequences for people and the environment. The Health and Safety authority provides advice to planning authorities where appropriate in respect of planning applications for development within a certain distance of the perimeter of these sites. The document entitled *“Policy and Approach of the Health and Safety Authority to COMAH Risk-based Land-Use Planning (September 2009)”* sets out the policy of the Authority and Land Use Planning requirements of the European *“Seveso Directive On The Control Of Major Accidents Hazards.”* The Dublin City Development Plan seeks to limit the location of *“Seveso”* sites to the Z7 zone and provides that *“the expansion of such facilities may be impacted upon by the requirement to protect surrounding land-uses.”*

Appendix 19 of the Plan lists the SEVESO sites in Dublin City Council’s administrative area. . Appendix E of the AMEC Safety and Environmental Impact Evaluation, lodged with the application and included as Appendix 2.1 of the EIS, maps the SEVESO sites. It addresses the concerns which the planning authority and the Health and Safety Authority might have in relation to the location of the pipeline relative to the SEVESO sites. The pipeline is within the relevant distance of only one SEVESO site in Dublin Port. It passes the roadside boundary of Topaz Oil Terminal no. 1, at Tolka Quay Rd./Alexandra Rd./No. 1 Branch Rd. N., for a distance of 300 m.

At the junction of Tolka Quay Rd. - East Wall Rd. is the north termination of the proposed Eastern Bypass roadway.

### **6.3.10 East Wall Rd. to junction with Alfie Byrne Rd.**

On its north side, East Wall Rd. is zoned Z6. As stated, there is significant development/redevelopment potential of sites on this side of East Wall Rd. Development is likely to be for employment type uses – innovation, research and development, science and technology, emerging industries and technologies. Uses could include residential development and support services (shops, entertainment, leisure uses, etc.) The Z6 zone is considered likely to generate considerable vehicular traffic.

Close to its junction with Tolka Quay Rd., the south side of East Wall Rd. is zoned Z14. This Z14 zone is identified as Strategic Development and Regeneration Area 6: Docklands (Spencer Dock, Poolbeg, Grand Canal Harbour). Much of SDRA 6 has been designated as the North Lotts – Grand Canal Dock Strategic Development Zone (SDZ.) However, the vicinity of East Wall Rd. is not included in the SDZ area. Chapter 16 of the Development Plan sets out proposals for SDRA 6, but these mostly focus on the areas now guided by the SDZ. As it fronts East Wall Rd., the western half of SDRA 6 has been developed with the Docklands Innovation Park and high density residential development.

A small area to the western end of East Wall Rd. is also zoned Z14. The western part has been redeveloped for offices. The eastern part has the benefit of planning permission for a 5082 sq.m. discount foodstore /gym and leisure/office building and 1176 sqm. drive-through restaurant and retail building (See Appendix B.)The established residential areas of East Wall Rd. are protected by the Z1 zoning.

#### **6.3.11 Tolka River and Alfie Byrne Rd.**

As it passes under the Tolka River, the pipeline will route under the river bed which is zoned Z11 and the north bank, zoned Z9. The extent of encroachment is minimal and will not interfere with the amenities of the river or its bank. The development will not materially contravene the zoning objectives.

As it routes via Alfie Byrne Rd., the lands on either side of the road are zoned Z9. The zoning protects their open nature and recreational amenities. Further development, over and above the existing D.A.R.T. station, would not be compatible with the zoning designation.

The pipeline passes over the port tunnel within this sector. This has been dealt with under special engineering difficulties at 4.0 above. See also par. 6.3.8 above.

#### **6.3.12 Clontarf Rd.**

The north side of the road is bounded by established housing which is protected by the Z1 and Z2 zonings. The south side is bounded by the open space (see above).

The railway bridge spanning Clontarf Rd., under which the pipeline route passes, is a protected structure.

#### **6.3.13 Howth Rd. and Copeland Avenue**

This section of routing is bounded by mature residential development. Major development is unlikely and the areas are protected by the Z1 and Z2 zonings.

There is a protected structure within the route corridor on Howth Rd. just west of Copeland Avenue, and a site of archaeological interest ref. no. 018018 just east of Copeland Avenue.

#### **6.3.14 Malahide Rd. – Copeland Avenue to Collins Avenue**

The west side of the route is bounded by the national monument/protected structure/site of archaeological interest Marino Casino, with its associated setting which is designated as an architectural conservation area. Adjoining this is institutional land (Nazareth House residential care home) which is protected by the Z15 zoning designation. Additional development on or redevelopment of this site is a possibility. Such development would be in accordance with Z15 requirements.

A neighbourhood shopping mall is zoned Z3, and the remainder of the west side of the road is Z1, protecting existing mature residential development.

On the east side, south to north, there is mature housing with the benefit of Z1 zoning. Adjoining this is Mount Temple school grounds zoned Z15. A gate-house close to the route corridor is a

protected structure, as is one of the school buildings more remote from the roadway. Development could take place on this site, subject to the strictures of the Z15 objective. Then there is Clontarf Golf Course, zoned Z9. Development of these lands will not take place without a zoning change.

#### **6.3.15 Malahide Rd. – Collins Avenue to Oscar Traynor Rd.**

This stretch of pipeline route is lined with predominantly mature residential suburbs, with associated open spaces and neighbourhood shopping malls, reflected in and protected by Z1, Z3 and Z9 zonings. Significant development would not be expected in this area.

There are two areas zoned Z6 on the west side of the road, reflecting established employment uses. Development could occur at Chanel College grounds, subject to the pre-conditions and requirements of the Z15 zoning objective.

A site of archaeological interest no. 018006, a bridge site, is identified, within the route corridor. Four others are in the vicinity – 014-07303, 014-07301, 014-07302 and 015-0084 (church, graveyard and castle at Artane and chapel at Coolock). These are more fully described at Chapter 15 of the E.I.S.

#### **6.3.16 Malahide Rd. – Oscar Traynor Rd. to Darndale**

On the east side of the road, the Z1 zoning objective, with pockets of Z9, protects mature residential development and associated open space. Significant change is unlikely. The exception is a site adjacent to the Santry River, currently the Omniplex Cinema and retail development. This is zoned Z4. An adjoining site to the east is zoned Z6. In time, either or both of these sites could be redeveloped, the Z4 zoning contemplating more intense district centre type facilities and the Z6 more intensive employment development, with both permitting residential in a mix.

Crossing the Santry River, the pipeline will enter the Z9 zone. The river valley is also designated a Conservation Area in this vicinity. The encroachment of the pipeline within the Z9 zone/Conservation Area will not be material, nor will the development have materially adverse impacts on the amenities of the river or the associated open space.

Monuments recorded in the Development Plan in the vicinity of this stretch of pipeline route are 015-074, which is also a protected structure, 015-075 and 015-076. These are a mound, holy well, and church/graveyard/ecclesiastical enclosure/mill sites respectively. See E.I.S. Chapter 15 for details.

#### **6.3.17 Malahide Rd./R139 Junction.**

The major intersection that is the junction of the Malahide Rd. and the R139 is the focus of a considerable area zoned Z14 and designated SDRA 1. This is the city North Fringe redevelopment area. Its development is the subject of the Clongriffin-Belmayne Local Area Plan 2012-2018.

The north-west quadrant of the junction has been developed with the Hilton Hotel, retail, office and business park developments. The south-east quadrant has been developed with the Clare Hall retail centre, leisure centre and petrol filling station.

The south-west quadrant is the Belcamp Lane opportunity site. It is envisaged as a mixed use development site, with residential, retail and employment use elements. Building heights and densities are seen as ranging from high at the junction and falling away from the junction. Commercial uses are orientated towards the junction, with residential development in the hinterland.

The north-east quadrant is the Belmayne Town Centre opportunity site.

Development at the junction is facilitated by a proposed junction by-pass route to its west. Routing of the pipeline from Malahide Rd., along Belcamp Lane and the western edge of the Clongriffin-Belmayne Z14 zone was considered. However, the pipeline is routed through the Malahide Rd/R139 junction to avoid potential conflict with the routing of the by-pass, which has not yet been finally identified.

A granite milestone on the west edge of the pipeline corridor, at the southern boundary of the Z14 zone, is a protected structure.

#### **6.3.18 R139 to Clonshaugh Rd.**

On its south side, the remainder of the R139 is adjoined by a developed landscape. The principal components are Darndale and Belcamp Parks, protected by the Z9 zoning. Between the two is an enclave of residential development, including traveller accommodation.

A narrow strip on the north side of the road is included in the Z14 zone, within SDRA 1. It is addressed in the Clongriffin – Balmayne Local Area Plan, but only to the extent that the LAP recognises that it will be developed in conjunction with lands in Fingal Co. Council's administrative area to the north.

At the eastern end of the R139, the Fingal Plan zones adjacent lands RA – to provide for new residential communities in accordance with approved Local Area Plans and subject to the provision of the necessary physical infrastructure. In the centre is a zone of OS – to preserve and provide for open space and recreational amenities. To the west is an area zoned HT - office, research and development and high technology/high technology type uses in a high quality built and landscaped environment. This spans the Clonshaugh Rd. Development of these lands is to be facilitated by the construction of a proposed road paralleling the R139 to its north. This proposed road intersects with the Clonshaugh Rd. The Clonshaugh Rd. itself is to be upgraded. Fingal Co. Council proposes to locate the major waste-water treatment plant to serve the Greater Dublin Area in this vicinity on the east side of the Clonshaugh Rd.

#### **6.4 Local Planning Policy – Fingal Co. Development Plan 2011-2017.**

6.4.1 In similar fashion to the Dublin City Development Plan, par. 1.2 of the Fingal Co. Development Plan 2011-2017 incorporates national and regional planning policy guidances. It states the Council's objective to Co-operate with the Dublin and Mid-East Regional Authorities, local authorities and other agencies in meeting the needs and development requirements of the County and the Greater

Dublin Area in accordance with the National Spatial Strategy and Regional Planning Guidelines for the Greater Dublin Area.

6.4.2 Under the heading “*Strategic Policy*”, par. 1.3 of the Fingal Co. Plan 2011-2017 includes the following main aims

*“1. Promote sustainable development by providing for the integration of economic, environmental, social and cultural issues into development plan policies and objectives, utilizing to that end the Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) processes.*

*2. Minimise the County’s contribution to climate change, and adapt to the effects of climate change, with particular reference to the areas of land use, energy, transport, water resources, flooding, waste management and biodiversity....*

*10. Promote enterprise and employment throughout the County, including the Metro North Economic Corridor and Blanchardstown, and work with the other Dublin Local Authorities to promote the Dublin City Region as an engine of economic recovery and growth for the Region and the country. ...*

*16. Secure the timely provision of other infrastructure essential to the sustainable development of the County, in particular in the areas of waste disposal, **energy supply**, renewable energy generation and ICT.”*

6.4.3 Fingal Co. Council particularly values the asset that is Dublin Airport, in its administrative area. Par. 2.1 deals with enterprise and employment and states

*“Fingal has many strategic advantages including the presence of Dublin Airport which, in conjunction with its access to Dublin Port and rail, road and telecommunications infrastructure, gives Fingal ready access to national and international markets. Demographically, Census 2006 indicated that Fingal was the fastest growing county in the state with the youngest population of any county and the highest rate of labour force participation.”*

6.4.4 Par. 2.2 of the Fingal Plan sets out its “*Approach To Enterprise and Employment*”. It states the objective to implement the “*Economic Development Action Plan for the Dublin City Region.*” This is an agreed approach to the development of the Dublin City Region by the four Dublin Local Authorities and aims to further develop the Dublin City Region as the engine of Ireland’s economy through a network of thriving spatial sectoral clusters, and as a centre for creative talent and creative assets.

The Approach recognises foci for economic development, to include the Dublin –Belfast Economic Corridor and the Metro North Economic Corridor. Dublin Airport is central to both.

6.4.5 2.8 of this Chapter focusses on the importance of tourism.

*“Strategic Enterprise Opportunities*

*Tourism is an important sector of the economy offering potential for increased employment and economic activity. Fingal has a rich portfolio of natural and cultural assets, providing a substantial recreational and heritage resource for a large and growing population. Fingal also has strong opportunities for business tourism because of its proximity to Dublin City and the Airport and the*

*ready availability of hotel accommodation. Opportunities to develop niche tourism including water sports, golfing, culinary and other leisure pursuits can also be exploited within Fingal. Fingal can capitalise on its city-edge location taking advantage of positive spin-offs given its proximity to Dublin City. “*

6.4.6 The importance of the Airport to the County is specifically set out at par. 2.10.

*“Dublin Airport is of national and international importance and represents the most significant single economic entity in Fingal and the Region. The Airport is the principal gateway to Ireland and an important driver of economic development, generating employment both directly and indirectly. Fingal has a unique role in facilitating the sustainable development of the airport and its environs and safeguarding its potential as a national resource. Objectives in relation to transportation issues pertaining to the airport are contained within Chapter 4, Section 4.1.”*

The Dublin Airport Local Area Plan provides the principal development management tool for the airport area and specifies the long-term disposition and mix of uses within the designated area together with infrastructural development necessary to support these uses.

Objective EE46

Safeguard the current and future operational, safety, technical and developmental requirements of Dublin Airport, having regard to the environmental impact on local communities.

Objective EE49

Facilitate the efficient and effective operation of Dublin Airport in accordance with Dublin Airport Local Area Plan and the principles of proper planning and sustainable development.

Objective EE50

Continue to participate in the Dublin Airport Stakeholders Forum which includes representatives from local authorities, airport operators, community and other stakeholders, providing a forum for discussion of environmental and other issues.

6.4.7 Ch. 4 of the Plan, on Physical Infrastructure, also contains policies regarding the Airport.

*“Dublin Airport is the principal gateway to Ireland and the most significant economic entity and largest provider of employment in the County and the region. It is of major national, regional and local importance because of its employment base, passenger throughput and airfreight services. In 2008 it accommodated some 23.5 million passengers, was used by 76 different airlines, provided 13,000 direct jobs and supported some 40,000 indirect jobs. The Dublin Airport Authority currently has approximately 24,320 car parking spaces at the airport. Dublin Port is recognised as the main provider of maritime transport in the Country.”*

Objective TO39

Facilitate the operation and future development of Dublin Airport recognising its role in the provision of air transport, both passenger and freight.

Objective TO40

Ensure access to Dublin Port, recognising its role in the provision of maritime transport, both passenger and freight.

6.4.8 The Co. Plan energy policy, at section 4.3, has relevance for the subject proposal.

*“Energy consumption is unavoidable. Modern societies consume huge amounts of energy to heat homes and offices, **fuel transport systems**, power industry and generate electricity. Whilst Ireland is no exception, it suffers a number of marked disadvantages insofar as energy is concerned, due to its small size and island location. This isolation from the European energy infrastructure accentuates the **need for security of energy supplies**, efficient energy infrastructure, and for development of indigenous resources to the maximum extent possible. Managing our demand for energy in a sustainable way will therefore be extremely important. ....”*

6.4.9 The Plan contains policies protective of the environment. These are referred to in the EIS and are more central to the discussion within that document.

6.4.10 Within Fingal Co. Council’s administrative area, the pipeline passes through zonings as follows:

HT – to provide for office, research and development, high technology, high technology manufacturing type uses in a high quality, built and landscaped environment. This zoning affects either side of the Clonshaugh Rd., close to its junction with the R139.

GB – to protect and provide for a Greenbelt. This zoning lies on either side of the pipeline route as it runs under the northern section of the Clonshaugh Rd. and crosses the AUL/FAI sports ground.

DA – to ensure the efficient and effective operation of the airport in accordance with the Dublin Airport Local Area Plan. This zoning lies on either side of the pipeline as it routes under roadways and lands within the Dublin Airport area. The proposed Dublin Airport aviation fuel pipeline inlet station is located in an area so zoned, on the west side of the Old Swords Rd. To the north of the inlet station is an area zoned HT and within the Dublin Airport Masterplan area.

6.4.11 In terms of local objectives, the pipeline route encounters the following:

- The Clonshaugh Rd., in which the pipeline is to run, is to be upgraded.
- A proposal for a new east-west route serving the south Fingal fringe, which intersects the Clonshaugh Rd., just north of Bewley’s Airport Hotel.
- Fingal Co. Council proposes to locate the major waste-water treatment plant to serve the Greater Dublin Area in this vicinity on the east side of the Clonshaugh Rd
- Within the airport precinct, the pipeline crosses the Old Swords Rd., which it is an objective to improve. This work has been carried out.

- The line is located within the airport inner noise zone, outer public safety zone and red approach zone.
- The pipeline runs through areas affected by the Clonshaugh Masterplan.
- It runs through the area encompassed by the Dublin Airport Local Area Plan.
- Of central relevance to the subject proposal, Specific Local Objective 399 of the Co. Plan is located within the boundary of the Dublin Airport Local Area Plan. It is *“to support the construction of an oil pipeline from Dublin Port to Dublin Airport to provide a fuel service for Dublin Airport.”*
- The route runs close to Protected Structure no. 602, a holy well site at Toberbunny.

6.4.12 Fingal Co. Council Planning Department advises that there is no valid Clonshaugh masterplan in place at present, to be taken into account in the consideration of this planning application.

6.4.13 In the Dublin Airport Local Area Plan, the pipeline routes mostly within areas designated for Ancillary Aviation-related Development. West of the Old Swords Rd., the route and final destination reception station are within the Apron –Related Development zone. Other relevant policies and objectives reflect those set out in the Co. Development Plan, as itemised above.

## **7.0 PERMITTED DEVELOPMENT ADJACENT TO THE PIPELINE CORRIDOR.**

7.1 Appendix B of this report sets out details of permitted significant developments adjacent to the pipeline route, as yet not constructed, as follows:

### **DUBLIN CITY COUNCIL ADMINISTRATIVE AREA.**

A. Demolition of existing Topaz Oil Terminal (SEVESO site) and Relocation to new site to east (SEVESO development), Tolka Quay Rd., Dublin Port (SEVESO site).

B. Temporary Vehicle Transport Bridge over M50, Dublin Port. (This has been provided.)

C. Discount Foodstore and Restaurant at Former Cahill Printworks Building, East Wall Road.

D. New Residential Care Facility at Nazareth House, Malahide Rd.

E. Residential and G.A.A. Clubhouse and Pitches at Chanel College, Coolock.

F. Redevelopment and addition of Retail and Medical Centre Uses at Total Fitness Leisure Centre, Clare Hall.

### **FINGAL CO. COUNCIL ADMINISTRATIVE AREA**

G. Remediation of IDA Lands, R139, Clonshaugh.

H. Petrol Filling Station Adjacent to Bewley’s Hotel, Stockhole Lane, Clonshaugh.

I. Hotel Adjacent to Bewley’s Hotel, Clonshaugh.



J. Redevelopment of Aviation Fuel Store at Corballis Park, Dublin Airport (Location of pipeline reception facility).

**8.0 ASSESSMENT OF THE SUITABILITY OF THE PROPOSED DEVELOPMENT IN THE CONTEXT OF PROPER PLANNING AND SUSTAINABLE DEVELOPMENT.**

8.1 It is respectfully suggested that the issues to be addressed by the planning authority in the making of the decision on the subject planning application are as follows:

- Is the proposed infrastructure warranted in principle, having regard to national, regional and local planning policy guidance?
- If so, are there any unacceptable impacts on human beings or the environment that arise as a result of construction or operation of the pipeline, which are not amenable to mitigation and should therefore give rise to a refusal of permission? As fuel is, and must continue to be, delivered to Dublin Airport, it is reasonable to consider potential impacts of the pipeline in relation to those associated with the current mode of transport of aviation fuel by tanker.
- Will the project inhibit any plans or proposals, whether of a public or private nature, for development of land along its route?

**8.2 Acceptability in Principle.**

The proposed Jet A1 aviation fuel pipeline will deliver an essential product, aviation fuel, to Dublin Airport. It has the capacity to deliver 100% of current airline fuel demand. It has the capacity to deliver projected fuel demand at the Airport to 2035 and beyond.

The delivery method is significantly more secure than the current tanker delivery. Tanker delivery is potentially prey to interruption due to industrial dispute, traffic problems, adverse weather. Pipeline delivery of airline fuel to Dublin Airport is a more sustainable method of delivery than the current tanker delivery mode.

Given its propensity to provide a full, secure and sustainable supply of airline fuel from Dublin Port to Dublin Airport into the future, the proposed pipeline is in line with national, regional and local planning policies which promote the use and development of Dublin Airport.

**8.3 Potential impact of the Pipeline in Operation**

8.3.1 When the pipeline is installed and operational, it will be underground and therefore invisible. It will give rise to no noise. It will give rise to no odours. It will give rise to no other emissions, other than potential for leakage of the fuel carried, which is dealt with at 8.3.2 below.

The associated stations at Dublin Port and Dublin Airport will be visible. Their pumping operations will give rise to noise. However, their appearance and noise emissions will be entirely consistent with the industrial nature of their locations. The control cabinets associated with the emergency shutdown valves on the on the Malahide Road and the R139 will be visible. They are small

structures, similar to ESB and BGE control cabinets, and thus will not give rise to significant visual impact.

8.3.2 Potential unacceptable impact associated with the pipeline in operation will only arise, therefore, in the event of a leak of aviation fuel. The AMEC report lodged with this planning application demonstrates that due to

- the pipeline thickness,
- the method of construction at joints/ valves,
- the proposed depth below ground,
- The method of backfill of construction trenches,
- The inclusion of marker tape above the pipeline to signal its presence to other utility providers
- The location of the fibre optic control and communications cable above the pipeline, which will have a secondary function of detecting third party activity in the vicinity of the pipeline,

the likelihood of a leak occurring is very low.

Due to

- the inclusion in the pipeline length of two intermediate emergency shutdown valves to minimise spillage in the event of a leak,
- The inclusion of leak detection systems
- Proposed operational management plans for the pipeline,

any leak that does occur is likely to be contained in extent.

Based on comprehensive statistical information on the performance of pipelines, AMEC have calculated the risk of any incident occurring on the proposed pipeline, from pinhole leak to full bore rupture, at 1:5,130 years.

Due to the pipeline safety features, any incident or leak is likely to be small and to be contained. The likelihood of any incident occurring is significantly in less than 1:5,130 years.

Due to the relatively benign nature of aviation fuel, in the unlikely event of a leak occurring, the likelihood of any spillage then vapourising at above 38°, and further lighting from some ignition source, is very much less than 1:5,130 years. Serious threat to human life or health is unlikely to arise.

Living any form of reasonably functioning life is inherently risky. Use of buildings, trains, cars, airplanes, bicycles is essential in a modern, functioning city. Their use carries assessable risk to human life or health (buildings can fall, planes, trains and cars can crash).

8.3.3 The AMEC report finds that risk of an incident with the current tanker method of transport of airline fuel is significantly greater than with pipeline transport – 1: 57<sup>6</sup> years i.e. an incident is 90 times more likely with tanker transport. While the potential size of maximum spill in a tanker incident is likely to be smaller than from the pipeline, this is off-set by the very much greater probability of an occurrence. An “incident” with a tanker is more likely to be a crash rather than a leak. Therefore the potential danger associated with a tanker incident is greater, due to the potential for presence of an ignition source (the tanker itself or any vehicle with which it might crash). There is also the fact that the current route to the airport of airline fuel tanker is via the Port Tunnel.

8.3.4 Aviation fuel pipelines are routinely located in urban locations, similar to that proposed, in major international cities.

8.3.5 Appendix E of the AMEC report advises that the pipeline will pass the boundary of a lower tier SEVESO site in Dublin Port for a distance of 300 m., viz. Topaz Oil Terminal No. 1, due to be decommissioned, at Tolka Quay Rd./No. 1 Branch Rd. N./Alexandra Rd. The report states that, for the pipeline to pose a threat to the SEVESO site, a large volume of fuel would have to pool on the ground surface and would have to ignite. It estimates that the likelihood of this occurring is extremely low, given the nature of aviation fuel, the design of the pipeline and the ambient air temperature at Dublin Port. It concludes that the risk to the SEVESO site should be considered “broadly acceptable”, a term typically used by the Health and Safety Authority to define the lowest risk threshold used in various forms of risk assessment.

Planning application ref. no. 3171/12 grants permission for demolition of this Terminal No. 1 and relocation of activities to an expanded terminal at Tolka Quay Rd., over 500 m. crow flies distance from the pipeline pumping control station at Bond Drive. The proposed new terminal will be a SEVESO establishment.

8.3.6 The Outline Emergency Response Report sets out how a leakage incident will be dealt with. IPC adopts the responsibility for mobilising the Emergency Response. The objective is to

- Contain and control any incident, to minimise effects and limit damage to persons, property and the environment.
- To communicate necessary information to the public and emergency services and authorities in the area
- To provide for restoration and clean-up of the environment.

The methodologies are set out in the Outline Emergency Response report and include

- Evacuation of the area, if necessary;
- Informing the relevant emergency authorities;
- Informing the relevant local authority in the event of danger of pollution;
- Traffic management;
- Clean up

The resources available to IPC to effect the operation are set out in the report.

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<sup>6</sup> Assumes tankers carrying 1500 MI/yr. which is the target loading of the pipeline. Risk of incident with tanker transport rises to 1:32 years if they are assumed to carry 2700 MI per year, the capacity of the pipeline.

This report will be further developed in conjunction with Dublin Fire Brigade prior to commissioning.

8.3.7 The EIS finds that fuel from any leak from the pipeline will have the potential to impact negatively on terrestrial or aquatic habitats, on designated nature conservation areas, on flora and fauna and on soil and ground water. These impacts could occur directly or via fuel entering river or groundwater systems.

The routing of the pipeline, largely in the public roadway and avoiding sensitive habitats, conservation areas and public parks, minimises the potential for such negative impacts. The design of the pipeline and the installed safety systems further reduce the potential for leaks and protect against environmental damage.

The EIS notes that

*“The pipeline will be operated using proven procedures and systems which are currently used by industry in the UK. These will include a regular programme of maintenance and a fortnightly visual inspection of the pipeline route. A set of safety plans and procedures will be put in place to cover the unlikely event of an accident with the pipeline. This safety plan will include a communications link to Dublin Port, Dublin City Council, Fingal County Council and Dublin Airport Authority. The plan will be based on existing plans used by the aviation fuel transportation industry in the UK and adapted or modified as necessary to meet local conditions and agreed with Dublin Fire Brigade. Four emergency Shutdown valves have also been incorporated into the design and these will automatically shut in the event of a leak, thus minimising the quantity of fuel that can potentially leak.”*

The EIS concludes that

*“The potential risk of impact on a designated site during the operation of the pipeline will therefore be controlled so that this risk is imperceptible. A Natura Impact Statement (NIS) has been prepared to determine the risk to Natura 2000 sites.”*

8.3.8 The same mitigation measures render the possible contamination of soil and ground water from a leaked aviation fuel pipeline unlikely and containable.

8.3.9 Finally, a fuel leak from the pipeline would have the potential to impact on other utilities in the pipeline corridor. However, the E.I.S. considers that the possibility of such a leak occurring is remote. The leak detection systems in place and the emergency response plans will be sufficient mitigation in the unlikely event that a leak would occur.

8.3.10 When the pipeline is in operation , a wayleave of 8 m. width on private lands will have to be maintained to ensure that access is available for inspection and repair where necessary.

For most of its length the pipeline is in the public road. The existence of the wayleave will have no impact on the use of the road surface. Impact would only occur on the unusual occasions where repairs must take place and use of the road must be temporarily suspended. Such works can be managed in a routine fashion.

There will be an impact on land-use where the pipeline is located other than in the roadway. At AUL/FAI grounds on the Clonshaugh Rd., the wayleave will have to be maintained clear of buildings.

The organisation has consented to the making of the application and is willing to enter into wayleave agreements.

The pipeline routing may affect redevelopment of lands at Dublin Airport. Through the Airport lands, the pipeline route is in roadway, or within developed sites close to the roadway. Where necessary, the pipeline can be moved to facilitate development or redevelopment.

8.3.11 The proposed pipeline carriage of aviation fuel will ameliorate/eliminate a number of negative factors associated with tanker transport. The potential for an incident giving rise to risk to human health or mortality is very significantly reduced. Delivery of fuel to the airport is significantly more secure. Green-house gas emissions from tankers are eliminated, with resultant improvement in air quality for the local population and as a contribution to mitigation of climate change. Wear and tear on roads is reduced.

#### **8.4 Construction Phase Impacts**

8.4.1 The EIS identifies tangible impacts associated with the construction of the pipeline. These are short term and temporary. They are amenable to mitigation measures, outlined in the EIS, such that the temporary impact is either eliminated, or reduced to levels that allow contemplation of a favourable decision on the subject planning application.

8.4.2 There is an element of “built-in” mitigation of potential construction impacts in route selection, design basis and the construction methodology proposed by the applicant.

The 200 mm. diameter of the pipe and the 1.2 m. cover to the pipeline mean that, at construction stage, the project is within the bounds of routine provision of piped infrastructure.

The routing of most of the length of the pipeline in the public road means that disturbance of ecological habitat is limited. Any environmental issues associated with routing of the pipeline through the construction compound at Dublin Airport were resolved when Fingal Co. Council issued a grant of permission for the construction of the compound itself. The pipeline is routed through an area shown as hard-surfaced car-parking area in the development permitted under ref. no. F06A/1949. Where the pipeline is routed through “*soft landscape*” (either side of the two non-culverted river crossings, through the AUL/FAI football ground and adjacent to ALSAA) habitat is not sensitive and reinstatement will ensure full recovery. Direct impact on any sensitive habitat is avoided by the selected pipeline routing. The routing avoids visually sensitive landscapes.

The construction phase is expected to be limited in duration to 10 months. Four construction teams will work on discrete sections of the pipeline at any one time to facilitate achievement of the 10-month programme. No property is expected to be directly affected by pipeline construction works for more than 2 days.

The use of trenchless technology to cross under the M1 and Old Swords Rd., and the availability of already provided ducting where the route crosses the junction of Tolka Quay Rd./East Wall Rd./Port Tunnel access means that traffic impact is eliminated at these points.

The use of trenchless technology to route the pipeline under the non-culverted Tolka River will minimise potential for disturbance of aquatic species and contamination of stream or river waters.

Construction impacts must be viewed in the above context.

8.4.3 Against that background, the EIS finds that the project could give rise to construction impacts as follows:

- Access to properties adjacent to the pipeline corridor, ranging in type from dwellings, to business premises, workplaces, shops, schools, health facilities, leisure facilities, community facilities will be constrained for residents, workers, customers, delivery services, students, teachers, staff, service provider and users.
- Noise arising from construction works and construction traffic at and in the vicinity of construction works will affect users of buildings, pedestrians and to a lesser extent vehicle drivers/passengers.
- Vibration arising from the use of some of the plant required at the construction phase of the pipeline has the potential to affect people and properties.
- Dust from construction works and construction vehicle emissions would have the potential to affect properties and habitats in the vicinity of the pipeline route.
- Construction silt, run-off from contaminated or made ground through which the pipeline may run and de-watering activities at trenches, all have the propensity to negatively affect surface water, ground water, hydrogeology and rivers/streams, with consequences also for aquatic ecology.
- Pedestrian, cyclist and vehicular traffic must be efficiently managed in the vicinity of the construction works to ensure minimisation of delay and disturbance.
- In terms of impact on ecology, there is potential for disturbance of wintering Brent geese at Alfie Byrne Park and Belcamp Park. At a location at Clonshaugh Rd., in the vicinity of the pipeline route, an invasive plant species, Japanese Knotweed, has been identified. There is a need to manage construction methods to avoid propagation of invasive species. There is potential for disturbance of aquatic ecology at the Tolka river crossing.
- The project will involve loss of 15,000 m<sup>3</sup> of material from the pipeline cut. At limited locations, contaminated soil may be encountered and removal will be managed. The project will involve the replacement of lost material with 14,469 m<sup>3</sup> of backfill.
- The construction of the pipeline could impact on Recorded Monument DUO18:006 – a former bridge in the pipeline corridor north of Collins' Ave., if there is extant underground structure (nothing remains above ground). Similarly, items of industrial heritage interest nos. 1513009 and 1804010 may experience impact if there is underground extant structure remaining. The EIS found no recorded area of archaeological interest on the route. However, it recognises the possibility that the pipeline may route through unrecorded archaeological sites/remains.
- Paragraph 15.5 of the EIS advises that there is one protected structure within the pipeline corridor – Clontarf Bridge. The project would have the potential to impact on the bridge structure. There are 6 no. further protected structures outside the pipeline corridor, but

within 50 m. of same. Regard must be had to the potential of the proposed pipeline construction works to impact on these.

- Construction works will give rise to visual disamenity in terms of presence of construction vehicles, low level temporary fencing of works areas and trench excavations, launch and reception pits for trenchless installation at the three river crossings. There is only one area on the pipeline route which is particularly sensitive to such works, the Architectural Conservation Area centred on Marino Casino at the southern end of the Malahide Rd. Given that construction works will be generally within the boundary of the public road, and of routine scale and nature, impact will be contained. As mentioned, it will be temporary.
- Works to lay the pipeline could, without due care, result in damage to existing utilities. This is an issue for much of the pipeline route, in the public roadway.
- Poor re-instatement could result in degradation of the roadway infrastructure under which the pipeline is to run.

8.4.4 To manage the above potential impacts, mitigation measures recommended in the EIS and proposed in Construction Management Plan and Traffic Management Plan lodged with the application are summarised as follows:

- Access to properties

Pedestrian access to properties will be maintained at all times.

Vehicular access to all properties will be maintained where possible and in any event will be disturbed for as short a period as possible (see traffic management below).

- Noise

- Par. 10.6.1 of the EIS concludes that noise from construction activity is likely to have a significant impact on ambient noise levels. While these are temporary and short term, mitigation is required.
- The proposal that 4 teams will work on the c.14.4 km. pipeline at the same time, and the fact that each team will move progressively through construction sections, means that the time during which significant noise levels are experienced at any one location is minimised.
- Par. 10.6.1 of the EIS draws attention to Condition 5 of An Bord Pleanala's grant of permission for a similar pipeline in 2001 *"All work shall be carried out in accordance with Directions for the Control and Management Of Roadwork's in Dublin City" produced by the Office of the Director of Traffic, Dublin Corporation (Now Dublin City Council). In this regard, a detailed schedule of working hours and related requirements shall be submitted to the planning authority for agreement prior to commencement of development"*.

- It proposes that a Noise Management Plan be agreed with the planning authority, to include a communication protocol with residents/occupants of adjacent affected buildings.
- During the construction phase , noise on site will be managed to minimise potential impacts on any local noise sensitive location. Particularly noisy activities will be carefully planned and timed to cause the least impact. Noise monitoring will be carried out, as necessary, during the construction phase to ensure the site is operating without undue noise impact. Results of this monitoring will be submitted to both DCC and FCC.
- Vibration
  - The E.I.S. finds that the operation of construction equipment may give rise vibration which has potential to impact on human beings. The level of impact is rated at moderate at most. It is not considered that vibrations will have a detrimental impact on buildings. Potential disturbance to fauna arising from vibration associated with stream crossings is dealt with under “Ecology” below.
  - Mitigation measures proposed, set out at par. 10.14.1 of the E.I.S., include setting of construction vibration limits, limiting hours during which vibration creating activities can be carried out, notification of residents and owners and occupants of commercial and community buildings along the route of up-coming vibration generating activities and their likely duration, instigation of a complaints management arrangement, monitoring of vibration levels.
- Dust
  - During the construction phase of the pipeline, the contractor will be required to develop and implement a dust control plan.
  - Surfaces that are to be excavated or cleared will be dampened prior to any works where there is potential for excessive dust to be created.
  - Lean mix concrete backfill material will be delivered on an as needed basis and will be pumped/poured directly from concrete truck to the trench.
  - Re-instated vegetated areas will be re-seeded immediately following construction in order to establish vegetated cover to prevent windblown erosion and associated dust emissions.
  - Wheel washes/mats will be used at access/egress points along the northern section of the pipeline corridor where the route is located off road in agricultural and amenity lands ((AUL- FAI) Sports Complex at Clonsaugh).
  - All vehicles delivering or removing material will be required to be covered or dampened to avoid dust emissions along local roads
  - Regular cleaning of public roads will be carried out where necessary.



- Traffic

- Chapter 9 of the E.I.S. finds that the proposal to use trenchless technology to bring the pipeline under the Old Swords Rd. within the Airport lands and under the M1 at Dublin Airport means that the proposed development will give rise to no traffic impact on these roadways. The advance provision of pipeline under the M50/Bond Rd./East Wall Rd. junction at the entrance to Dublin Port similarly avoids traffic impact at this busy intersection. Elsewhere along its route, the pipeline construction works have the propensity to give rise to impact on the normal flow of traffic, both public and private transport and cycles and to impact on pedestrians.
- At par. 9.6.1. the E.I.S. notes that the route selection process has resulted in a pipeline route that avoids narrow roads and roads with services congestion, facilitating expeditious construction and minimising traffic impacts. The proposal to use 4 construction teams shortens the overall construction time to 10 months, limiting the period of traffic disruption.
- Par. 9.6.3 recommends traffic impact mitigation measures, chiefly the implementation of the recommendations of the Traffic Management Plan lodged with the application. This sets out detailed proposals for the management of vehicular and pedestrian traffic for each of the 15 route sections. It proposes advance notification of the public of the upcoming works and arrangements proposed. It proposes working hours of construction teams. It proposes the making available of personnel to deal with queries and problems being experienced by road users during the project construction phase.
- The E.I.S. sets out proposals for ensuring that road surfaces are usable and properties accessible between working hours, providing for partial and full demobilisation of works as each situation requires.
- The conditions of road opening licenses will be adhered to throughout the construction process.

- Ecology

- Chapter 11 of the E.I.S. finds that the construction of the pipeline has the propensity to impact on flora and fauna within the pipeline corridor. Indirect impact on Designated Sites could arise from contaminants entering the river or ground water and migrating to the Site. These could be silt from excavation activities, leachate from contaminated soil, contaminants from dewatering activities. Vibrations from trenchless installations at river crossings have the propensity to impact on migrating fish. Habitats could be impacted upon by the spread of invasive species. Increased human presence at construction sites is a factor. Construction activities could impact on communities of Brent Geese overwintering at Alfie Byrne Rd., and Belcamp Park.
- Watercourses on the pipeline corridor will be crossed using trenchless techniques rather than open cut technology in order to minimise disturbance to the river and its downstream receiving environment. This will ensure that there is no physical disturbance to the water body during construction. A Method Statement will be

provided to the IFI (Eastern River Basin District) for all works associated with watercourses prior to construction for assessment and approval.

- Any water produced from dewatering activities will be discharged under license from the local authority.
- Construction and re-instatement works along the Alfie Byrne Road and Malahide Road (R139) will only be carried out during the period May to September in order to prevent disturbance to any wintering Brent Geese.
- Where possible, the destruction or removal of any mature vegetative cover will be conducted outside of the avian breeding season (March-August), as required by the Wildlife Act 1976 (as amended). This will reduce disturbance and/or displacement impacts of the development on breeding bird species.
- A tree survey of all trees along the pipeline corridor which will be directly impacted. The survey should be carried out prior to construction and 3 – 5 years following construction. These surveys will determine the baseline condition of any trees prior to construction and then determine whether damage has been caused during construction. The arboriculturalist is to advise on any remedial action required to any tree damaged during construction.
- Habitats removed will be re-instated. This will minimise the impact of habitat loss and deterioration on the local wildlife.
- Good working practices will prevail throughout construction. For example, machinery, equipment, fuel and other materials associated with the development will be stored appropriately (e.g. bunded fuel tanks at the construction compounds). Litter and other waste material will also be stored and disposed of appropriately. Refuelling of machinery and plant will occur offsite. This will minimise the potential risk of damage or pollution to wildlife and their habitats.
- The clump of Japanese Knotweed identified in the vicinity of the Clonshaugh Rd. is to be managed in accordance with Best Practice Guidelines available on the Invasive Species Ireland website ([www.invasivespeciesireland.com](http://www.invasivespeciesireland.com)) and according to the NRA (2010) 'Guidelines on the Management of Noxious Weeds and Non-native Invasive Plant Species on National Roads'. An invasive species management plan has been included in Appendix 11.5 of the EIS.

- Soils/Geology

Chapter 12 of the E.I.S. recommends the following mitigation measures along the pipeline corridor to minimise potential impacts on soils and geology during the construction phase:

- Surface water runoff will be intercepted and diverted away from open excavations towards the nearest gully (on roadways) or to a temporary holding pond/tank (near river/stream) crossings.

- Measures are proposed to prevent leaching and compaction of soils pending back-filling.
- Where contaminated material is identified, any rainfall, surface water runoff or groundwater inflows in contact with contaminated soil, subsoil or made ground around open excavations will be captured, in order to limit contaminant pathways.
- All contaminated materials encountered along the proposed scheme will be excavated, stored, moved, disposed of or recovered in accordance with the requirements of the Waste Management Act 1996 as amended and the Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects.
- Imported granular material will be sourced in accordance with an engineering specification to ensure that only clean, inert material is used which contains minimal fines content to reduce the risk of contamination, sedimentation and ground settlement.
- Soil, subsoil, made ground and/or groundwater contamination will be protected from contamination as a result of spills or leakages by control of the storage and handling of fuels, lubricants and waste.
- Given the limited depth of excavations and the expected low dewatering requirements, ground movement adjacent to the pipeline is expected to be minimal during construction. In locations where the pipeline passes very close to or beneath buildings, structures, roads or railways, an appropriate monitoring will be put in place to ensure that there are no negative impacts.
- Settlement of trenches will be minimised by using an engineering specification for the sand surrounding the pipe and by using compacted lean-mix concrete for backfill. The selected pipe surround material will be graded and tested to ensure it meets with the engineering specification. The material will be properly compacted in layers according to the specification to ensure that settlements are minimal. A maintenance period and regular independent inspections will ensure that any subsequent settlements are quickly identified and repaired.
- Hydrogeology/Groundwater

Potential impacts on the underlying groundwater aquifer will be mitigated, where appropriate, by implementing best practice on site. This will include, but not be limited to, the following:

- all chemicals, oils and fuels used during the construction phase will be stored in sealed containers on impervious bases within a bund of 110% of the storage capacity at the temporary construction compounds chosen by them. Filling and draw-off points will be

located entirely within the bunded area(s). Drainage from the bunded area(s) will be diverted for collection and safe disposal off site. All storage tanks will have primary, secondary and tertiary containment. These areas will be located within the construction compounds and will be locked and secured when not in use.

- Refuelling of vehicles will be conducted off-site away from the pipeline corridor.
- Potentially contaminated water generated by construction activities will be collected on site and discharged to a nearby surface water drain or foul water sewer (under agreement and licence from DCC or FCC). Effluent unsuitable for discharge will be tankered off site to an appropriate facility for disposal.
- Any effluent generated by temporary on-site toilet facilities (Portaloo type facilities) will be taken off site for appropriate treatment.
- See above for methods disposal of any contaminated soils encountered during the construction of the proposed scheme.
- Archaeology, Architecture and Cultural Heritage
  - A geophysical survey of the proposed pipeline corridor within areas of archaeological potential will be carried out as part of the route proofing stage of the project. Detailed background information outlining the proposed methodology of the geophysical survey is provided in Appendix 15.4 of the EIS. Should archaeological remains be uncovered as a result of the geophysical survey, it will be recommended that the route of the pipeline be moved within the consented corridor and that the remains be preserved in situ.

Should it not be possible or preferable to avoid the below-ground archaeological remains, test trenching will be undertaken, well in advance of any groundworks, to establish the extent, character and condition of the archaeological resource.

Recommendations, which may include full-scale excavation/preservation by record or preservation in situ, will be submitted to the DoAHG and the Dublin City Archaeologist where appropriate for agreement.

- Construction works
  - from the southern end of Howth Road to Charlemont Road, centered on RMP DU018:067 (human burial) (figure 15.18),
  - at the junction of Collins Avenue/Malahide Road (in the vicinity of RMP DU018:006- bridge site)
  - at Industrial Heritage Record site 1804010 at Malahide Rd.
  - from the southern end of Coolock Main Street to Brookville Crescent/Tonlegee Road (in the vicinity of RMP DU015:084- chapel),
  - from Brookville Crescent/Tonlegee Road to Greencastle Road (in the vicinity of RMP DU015:074- mound),
  - at Industrial Heritage Record site 1513009 located immediately north east of the abovementioned RMP DU015:074- mound,

- from the northern end of Clonshaugh Road to the N32 roundabout (in the vicinity of RMP DU014:056- 16th/17th century house),

will be monitored on a permanent basis. Monitoring will be carried out under Licence to the DoAHG and in agreement with the Dublin City Archaeologist. Intermittent monitoring will be carried out on the remainder of the scheme. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring.

- Similarly, all construction works associated with the excavation of pits required for the seven river/stream crossings and for road crossings will be monitored. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring.
- Architectural Heritage
  - Strip map no. 11 (Drawing no. 0862/D/02/G/D0011) shows that it is proposed to route the pipeline under the southern vehicular carriageway of Clontarf Rd., under Clontarf Bridge protected structure. The pipeline works will not directly affect the bridge structure in any way. Vibration associated with the pipeline construction project will be monitored to ensure that there is no materially adverse, indirect impact on the bridge structure.
  - The six other Protected Structures within 50 m. of the proposed pipeline corridor will be fenced off during all construction works to ensure there is no construction impact on these features.
  - Should any architectural remains, such as street furniture, historic kerbs, stone setts etc. be uncovered as a result of the archaeological monitoring, professional recording, handling and reinstatement of all such features will be carried out. A Grade 1 Conservation Architect with urban design skills will be appointed to guide best conservation practice.
- Visual Impact
  - Trenchless technology will be used for watercourse crossings to minimise impacts on the aesthetic value of these areas.
  - In all areas along the proposed pipeline corridor, and in particular at the AUL/FAI sports grounds, full re-instatement to previous vegetation cover will be carried out promptly after construction.
- Impact on Existing Line Infrastructure

The applicants have carried out extensive consultation with utilities providers to establish, as far as possible at this pre-planning application stage, the location and nature of infrastructure within the proposed pipeline corridor. Due to the considerable number of existing services along the proposed pipeline corridor, the precise position of the pipeline within the route corridor has not been confirmed at this stage. It is proposed to undertake slit trenching prior to pipe-laying to determine the exact

location and depth of existing underground utilities before deciding the final location of the proposed pipeline. Consultation will take place with Irish Water, the Local Authorities, ESB, telecommunications companies, the National Roads Authority etc. during construction to ensure that the potential for any impact on existing services is minimised.

Following construction all temporarily acquired lands will be fully reinstated to their original condition.

8.4.5 With the adoption during the construction phase of appropriate mitigation measures, the impact of the proposed development on human beings and the environment will be well within the bounds of tolerable and acceptable.

### **8.5 Impact On Plans And Projects.**

8.5.1 The proposed pipeline, which is designed and will be operated in accordance with ISEN 14161 Petroleum and natural gas industries –Pipeline Transportation, can be routed close to existing buildings of all uses without undue risk to or impact upon human beings. Potential for risk and damage to the environment associated with operation of the pipeline is acceptably low and containable. Potential construction impacts are limited in scope and duration. Subject to proposed mitigation measures, they can be contained within very acceptable limits. Therefore the proposed development will pose no limitation on use and development of adjoining lands, whether such development occurs before or after the installation of the pipeline.

8.5.2 The proposed pipeline will have no implications for execution of the permitted developments adjacent to its route as identified at Appendix B.

AMEC have advised that the pipeline does not pose an unacceptable risk to the existing Topaz oil terminal SEVESO site which its route passes. The permitted new terminal will be 0.5 km. distant.

The proposed site layout for the redeveloped aviation fuel storage compound at Dublin Airport makes provision for the proposed pipeline control station. The redeveloped fuel storage compound is a SEVESO development, but the principles outlined in the AMEC report suggest that the pipeline development will not pose an unacceptable risk to the project when provided.

8.5.3 The pipeline route must remain accessible after construction, for inspection and repair purposes. This is not an issue where the pipeline is under the public road, which is for most of its length. Where the pipeline routes through open space, access must be maintained, protected by right of way. The restriction does not prevent passage over or use of the land reinstated over pipeline, merely that it must not be built upon. Thus the pipeline has an effect on the use by AUL/FAI of their sports ground at Clonshaugh Rd. If lands at Dublin Airport or Dublin Port are redeveloped in the future, utilities, including the fuel pipeline, may have to be relocated.

8.5.3 Route selection has been designed to minimise constraint on the use of public and private open spaces. Route selection has been designed to ensure there is no potential conflict with the proposed routing of the Malahide Rd./R139 By-Pass route.

## **9.0 CONCLUSION**

9.1 The proposed development will provide an alternative method of delivery of aviation fuel to Dublin Airport which can meet the needs of the airport into the foreseeable future.

9.2 It offers greater security of supply than the current method.

9.2 The risk of any incident with pipeline delivery is 1: 5,130 years. The potential for a large scale spill of fuel from the pipeline is significantly less, and for resultant fire, even less. The risks of incident associated with pipeline delivery are significantly less than with the current road tanker method of delivery.

9.3 Pipeline transport of aviation fuel is more sustainable than road tanker delivery.

9.4 The only substantive impacts which might arise from operation of the pipeline are associated with malfunction giving rise to a leak or spill. As the risk of any incident is low, and risk of a major incident lower, and mitigation in terms of appropriate emergency response is proposed in this application, it is respectfully suggested that this application can be considered for a grant of permission.

9.5 Potential impacts associated with the construction phase have been identified. They will be temporary and short term. Pipeline routing and design are inherent mitigation factors. The proposed construction and traffic management plans lodged with the application aim to minimise impacts. Further mitigation measures are identified in this report and elaborated on more fully in the E.I.S. It is respectfully suggested that a grant of permission, subject to conditions reflecting the mitigation measures suggested in this application, would render construction impacts at the least acceptable and in most cases, slight to nil.

9.6 In summary, a grant of permission for the proposed development would accord, in principle, with national, regional and local planning policy guidance. Potential risks and impacts associated with operation of the pipeline have been fully researched and found to be low and containable. Potential construction impacts are routine and amenable to mitigation measures. The project will not constrain the future use and development of lands along its route. It is respectfully suggested, therefore, that there is every reason to grant permission for the proposed development, subject to appropriate conditions to mitigate potential impacts



Signed:

**AUVEEN BYRNE, B.A., Dip T.P., M.I.P.I.**















**APPENDIX A**

**EXTRACTS FROM DEVELOPMENT PLAN MAPS DUBLIN CITY COUNCIL  
AND FINGAL CO. COUNCIL SHOWING PIPELINE ROUTE**



## DUBLIN CITY DEVELOPMENT PLAN 2011-2017

### USE ZONING OBJECTIVES

Zone Z1	To protect, provide and improve residential amenities	
Zone Z2	To protect and/or improve the amenities of residential conservation areas	
Zone Z3	To provide for and improve neighbourhood facilities	
Zone Z4	To provide for and improve mixed services facilities	
Zone Z5	To consolidate and facilitate the development of the central area, and to identify, reinforce and strengthen and protect its civic design character and dignity	
Zone Z6	To provide for the creation and protection of enterprise and facilitate opportunities for employment creation	
Zone Z7	To provide for the protection and creation of industrial uses and facilitate opportunities for employment creation	
Zone Z8	To protect the existing architectural and civic design character, to allow only for limited expansion consistent with the conservation objective	
Zone Z9	To preserve, provide and improve recreational amenity and open space & green networks	
Zone Z10	To consolidate and facilitate the development of inner city and inner suburban sites for mixed use development of which office, retail and residential would be the predominant uses	
Zone Z11	To protect and improve canal, coastal and river amenities	
Zone Z12	To ensure that existing environmental amenities are protected in any future use of these lands	
Zone Z14	To seek the social, economic and physical development and/or rejuvenation of an area with mixed use of which residential and "Z6" would be the predominant uses	
Zone Z15	To provide for institutional, educational, recreational, community, green infrastructure & health uses	

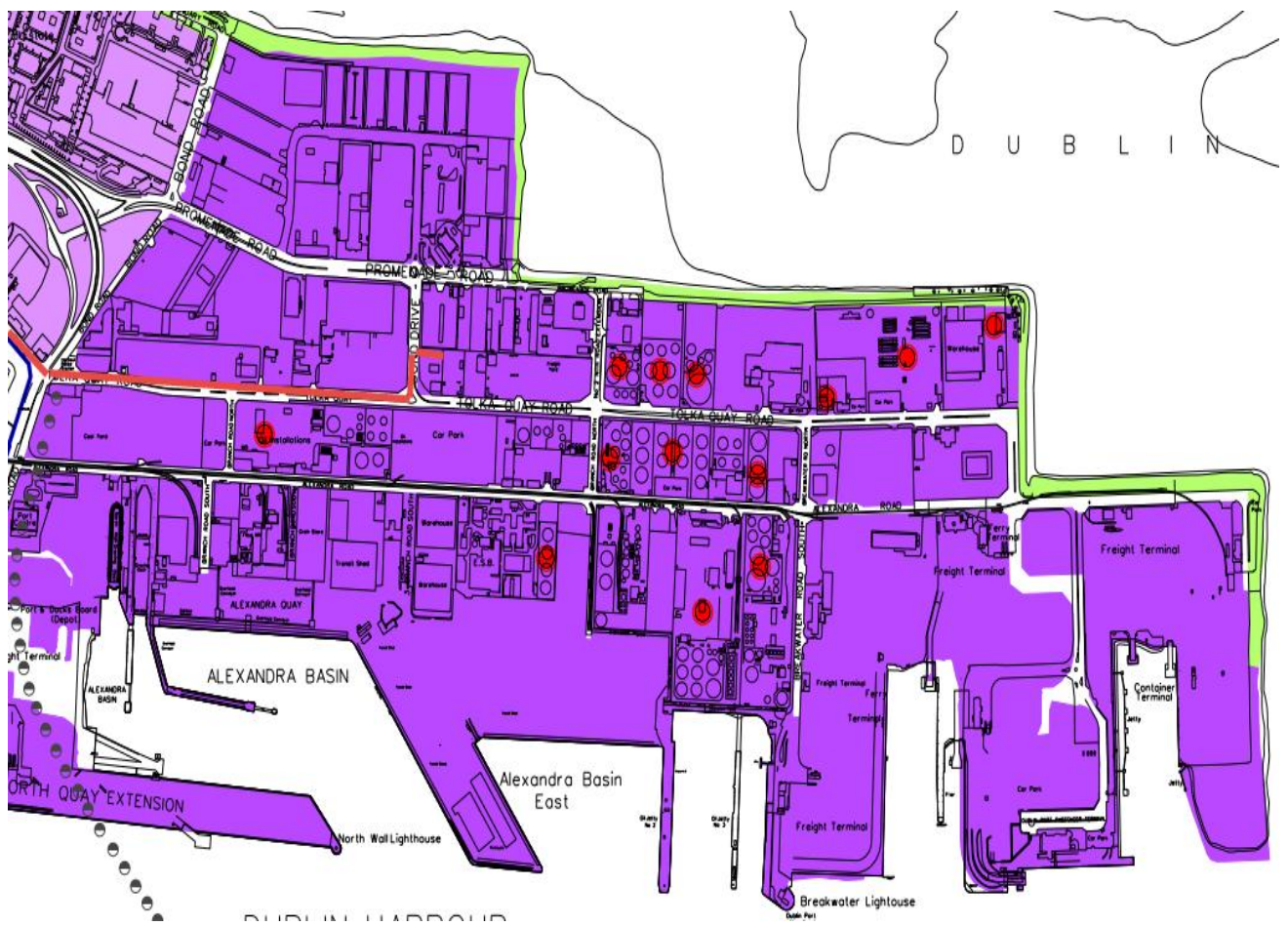


Figure 1: Map F Bond Drive to E. Wall Rd.



Figure 2: Map E East Wall Rd./Alfie Byrne Rd.

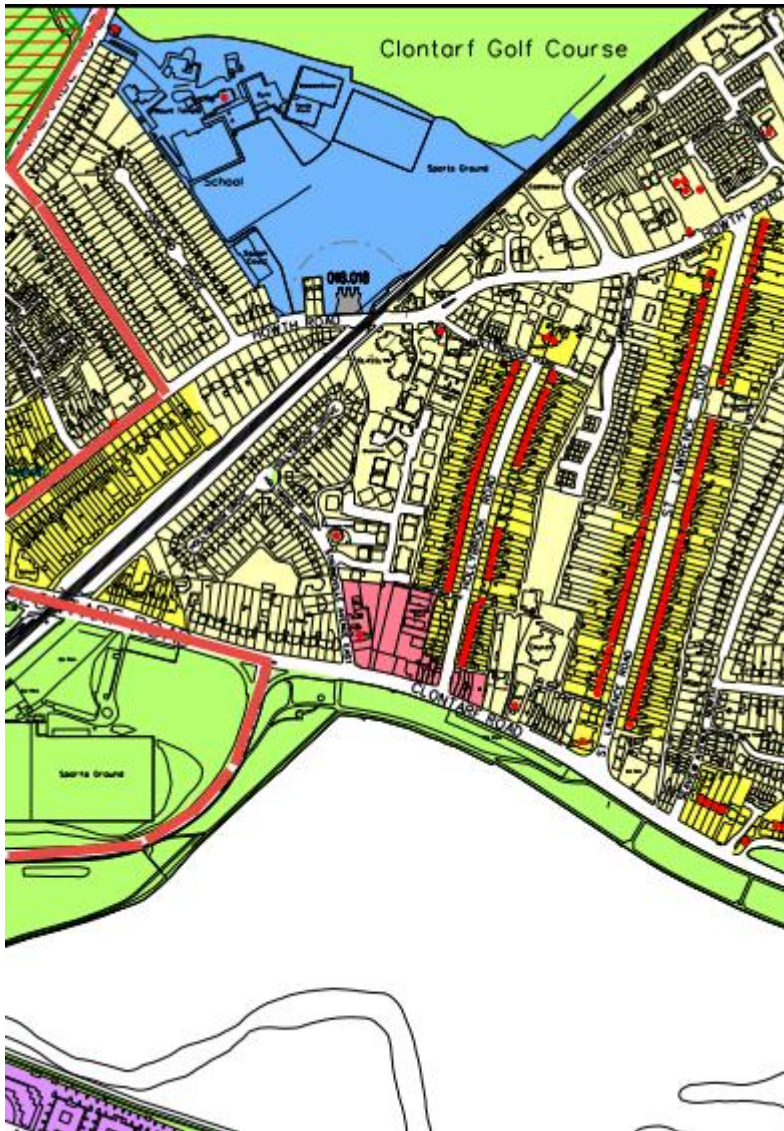


Figure 3: Map F Alfie Byrne Rd./Clontarf Rd./Howth Rd./Copeland Ave.

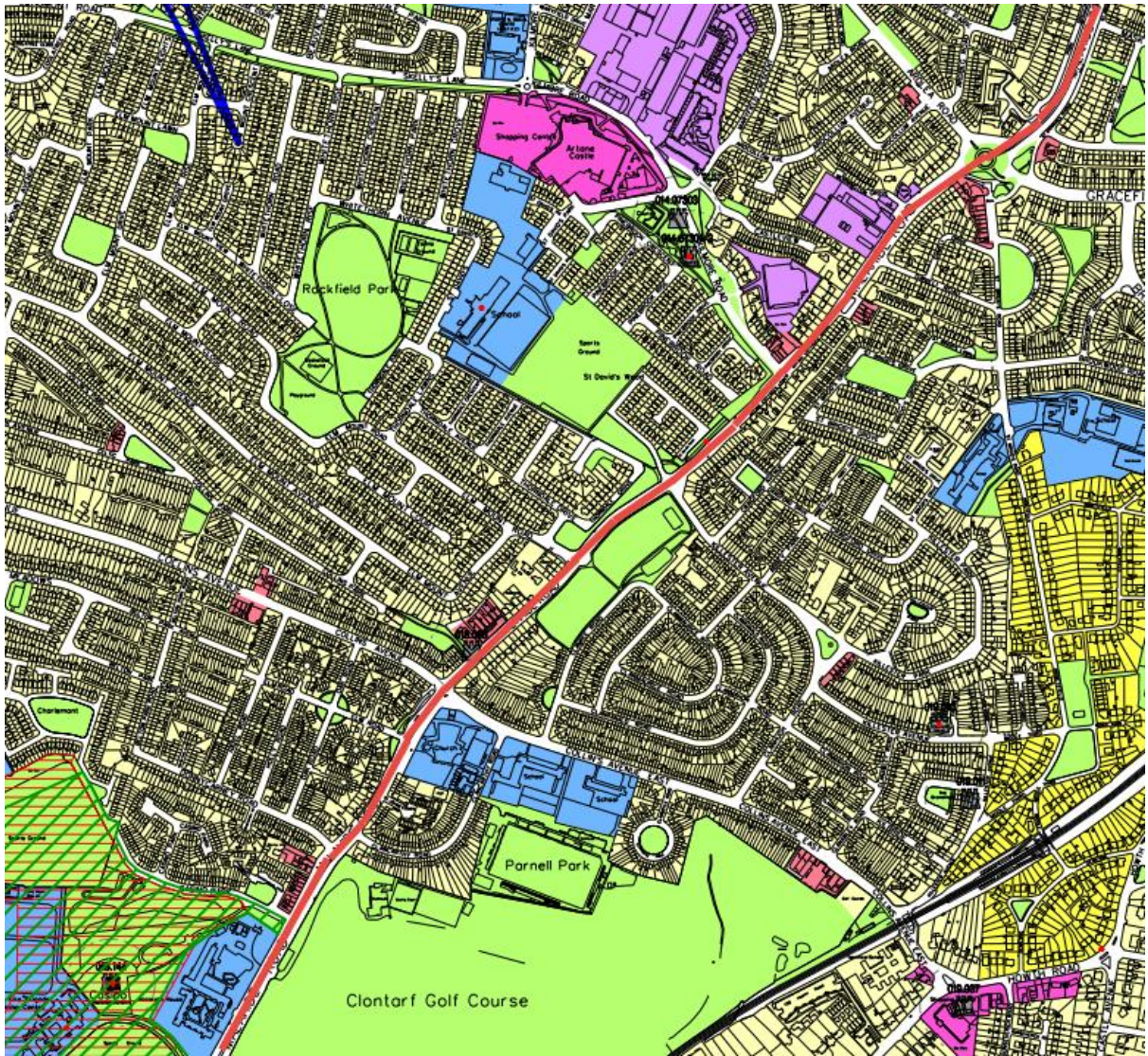


Figure 4: Map B Malahide Rd. (R107)

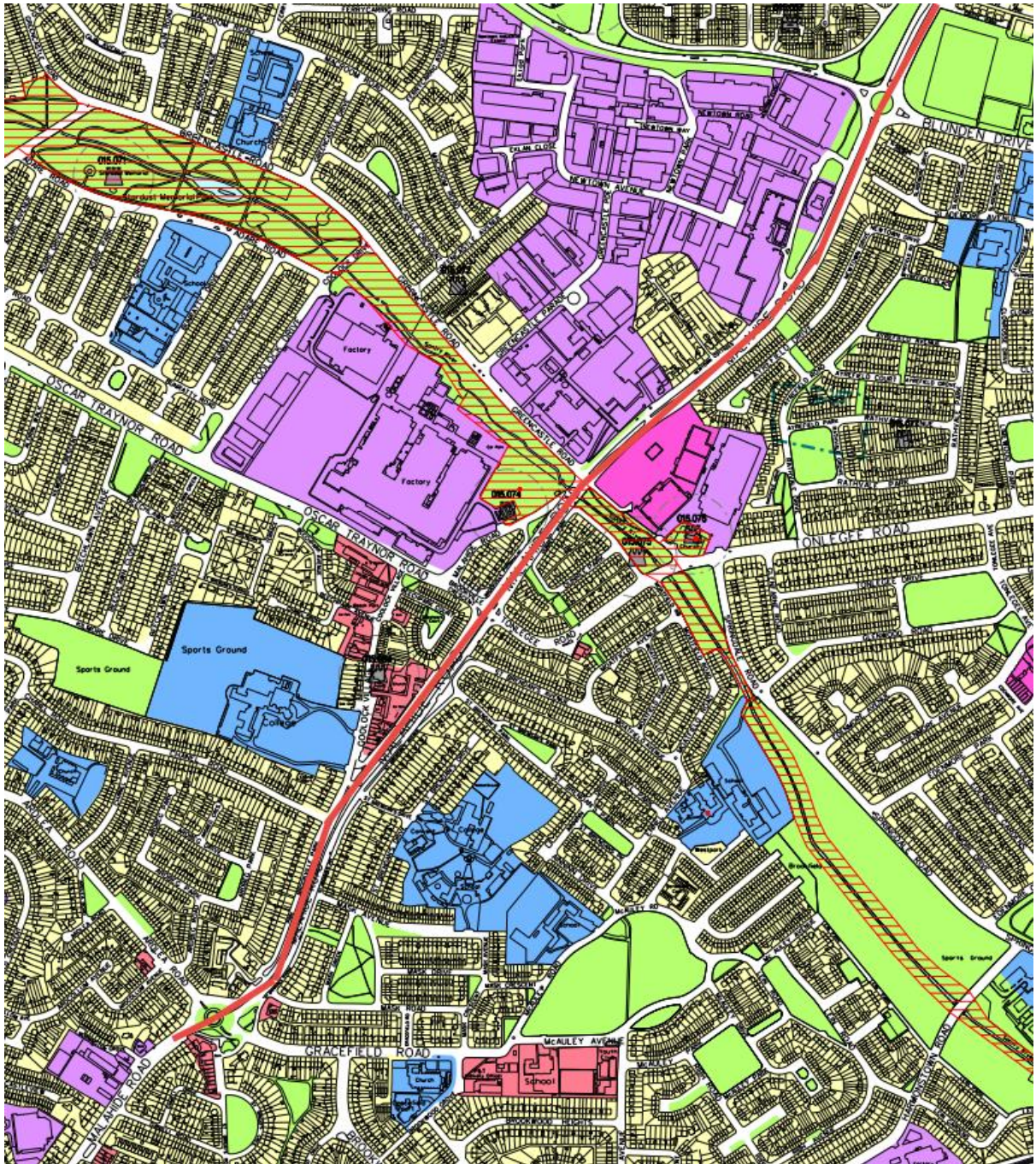


Figure 5: Map B Malahide Rd.(R107)

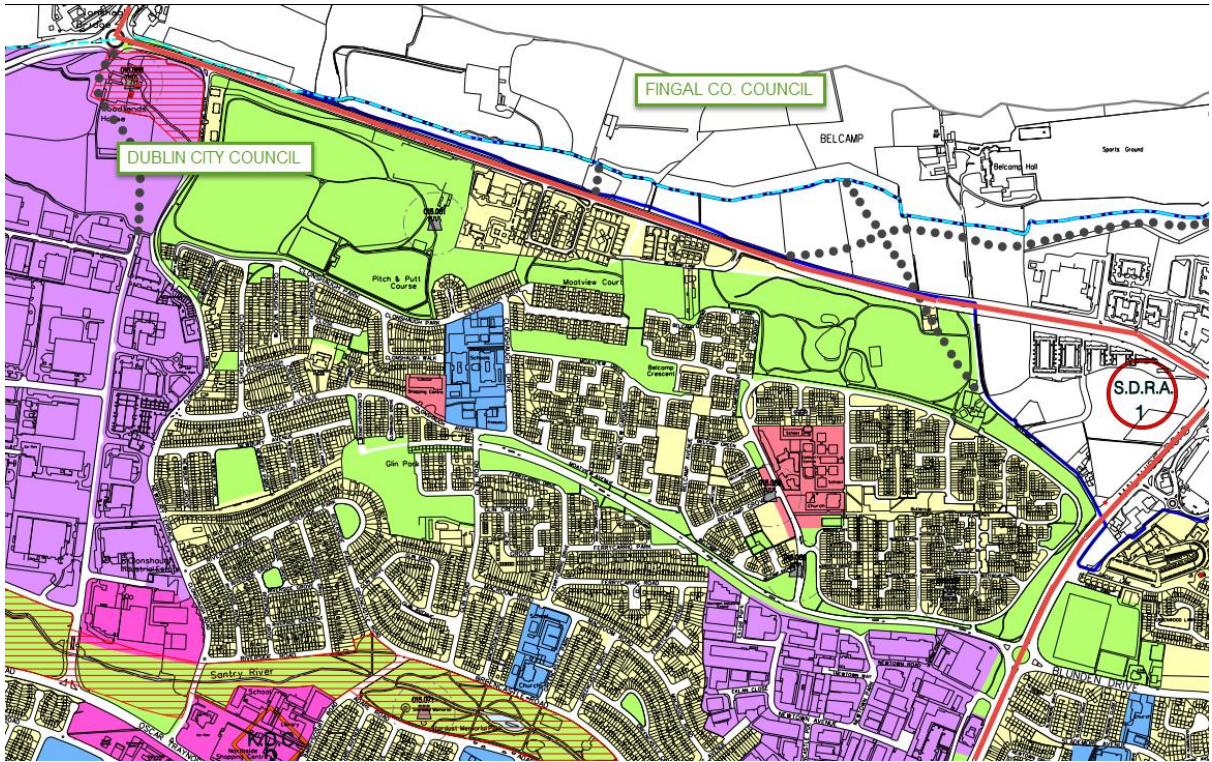
















Figure 6: Map B Malahide Rd./Malahide Rd. (R139)

# Zoning Objectives

	Objective DA	Ensure the efficient and effective operation and development of the airport in accordance with the adopted Dublin Airport Local Area Plan
	Objective FP	Provide for and facilitate the development of a Food Industry Park
	Objective GB	Protect and provide for a Greenbelt
	Objective GE	Provide opportunities for general enterprise and employment
	Objective HT	Provide for office, research and development and high technology/high technology manufacturing type employment in a high quality built and landscaped environment
	Objective LC	Protect, provide for and/or improve local centre facilities
	Objective ME	Facilitate opportunities for high density mixed use employment generating activity and commercial development, and support the provision of an appropriate quantum of residential development within the Metro Economic Corridor
	Objective OS	Preserve and provide for open space and recreational amenities
	Objective RC	Provide for small scale infill development serving local needs while maintaining the rural nature of the cluster
	Objective RS	Provide for residential development and protect and improve residential amenity
	Objective RU	Protect and promote in a balanced way, the development of agriculture and rural-related enterprise, biodiversity, the rural landscape, and the built and cultural heritage
	Objective TC	Protect and enhance the special physical and social character of town and district centres and provide and/or improve urban facilities
	Objective WD	Provide for distribution, warehouse, storage and logistics facilities which require good access to a major road network within a good quality environment
	Objective RW	Provide for retail warehousing development

FINGAL COUNTY DEVELOPMENT PLAN 2011-2017



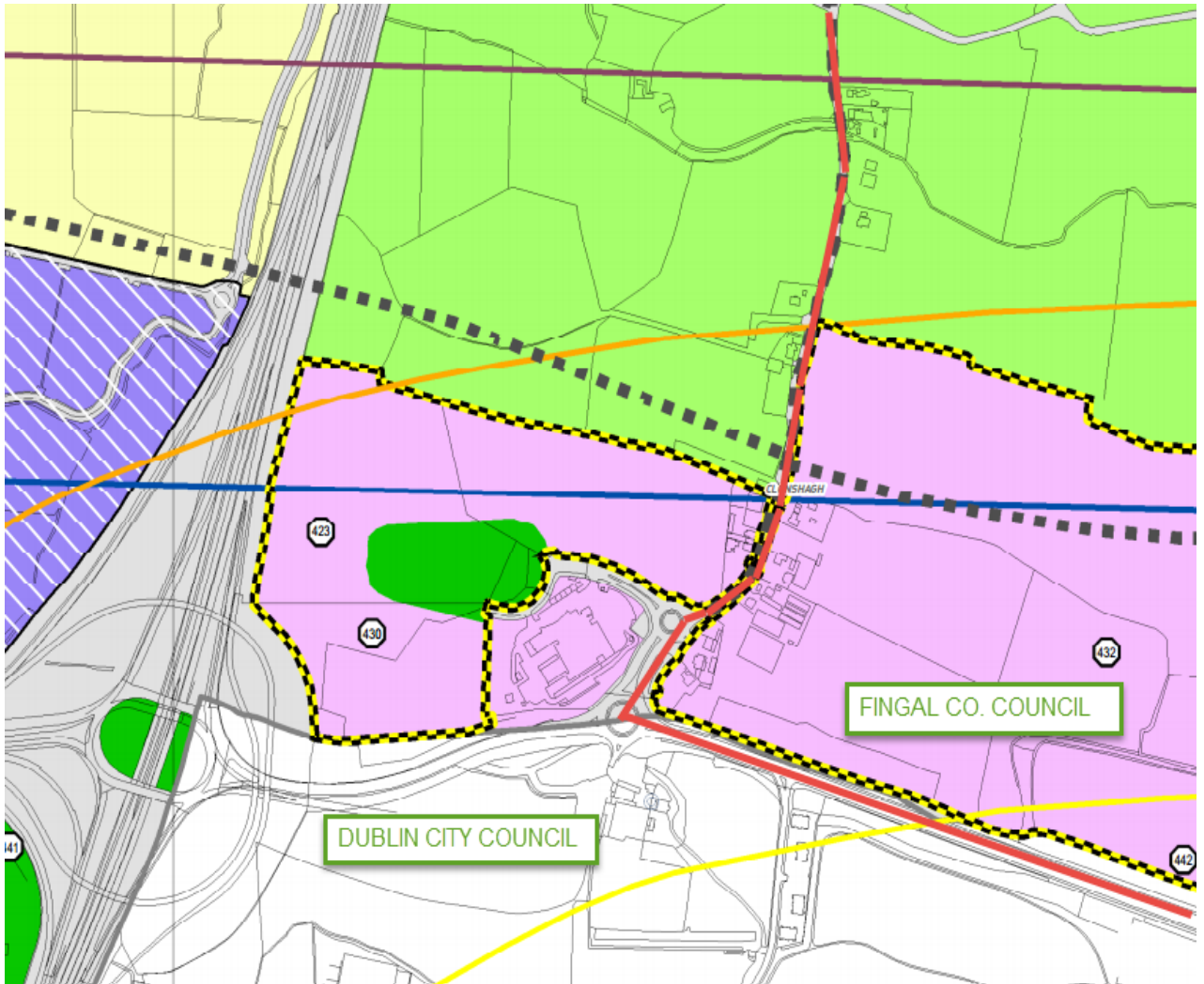


Figure 7: Malahide Rd. (R139) / Clonshaugh Rd.

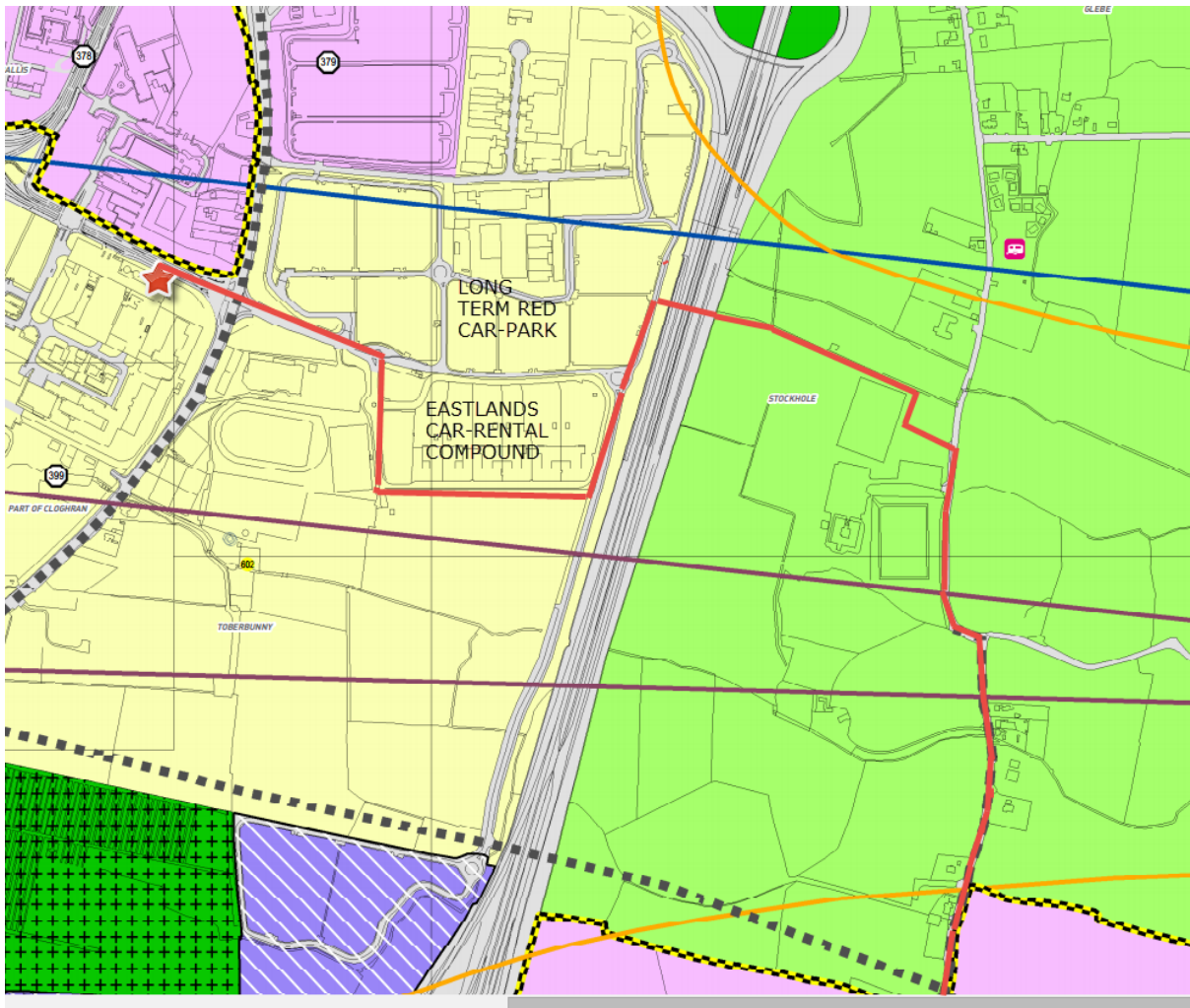


Figure 8: Clonsaugh Rd./M1/Corballis Rd./Airport Reception Station

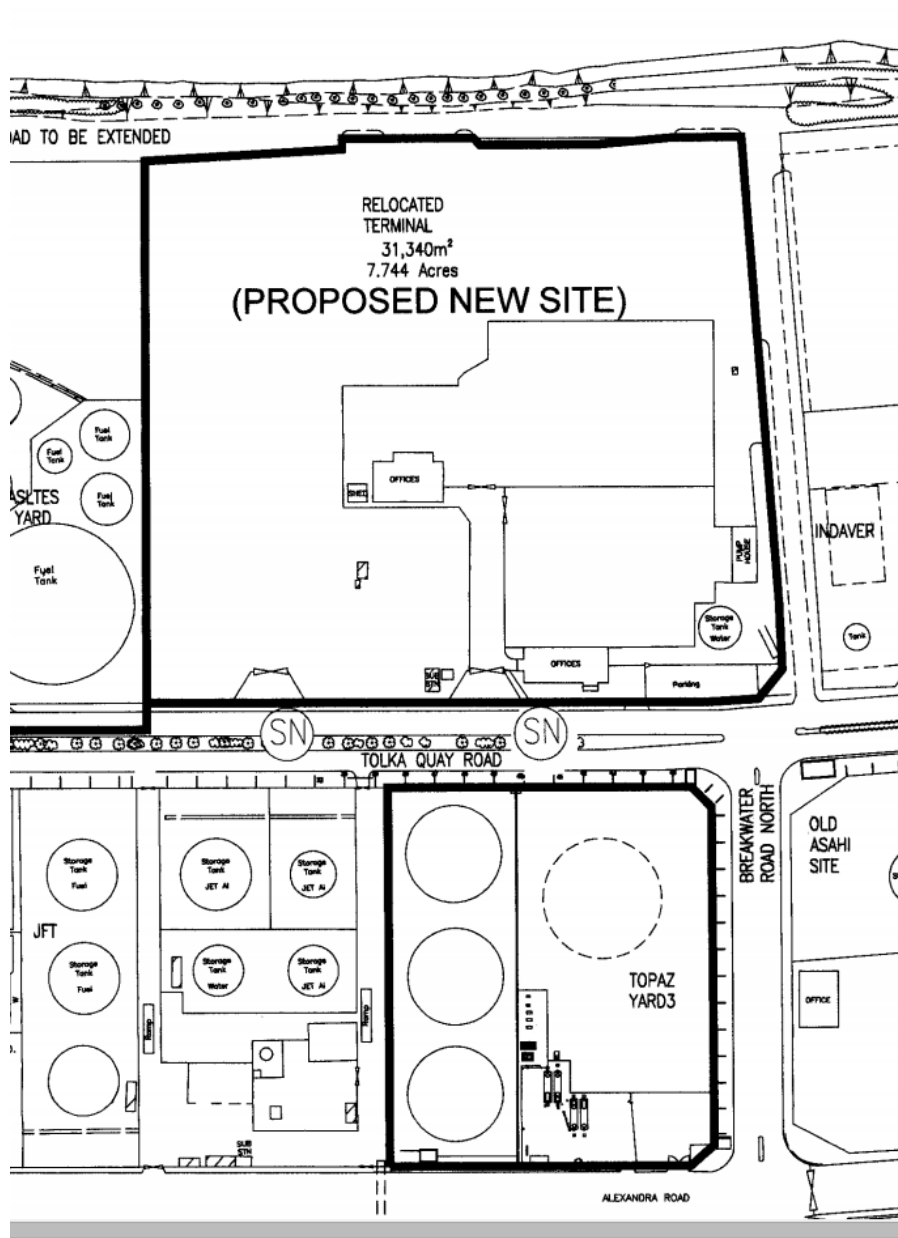
**APPENDIX B**

**PERMITTED DEVELOPMENT ADJACENT TO THE PIPELINE CORRIDOR**

**AS AT JULY 2014.**

**DUBLIN CITY COUNCIL ADMINISTRATIVE AREA.**

A. Topaz Oil Terminal Relocation, Dublin Port.



Dublin City Council Ref. No. 3171/12

Grant of permission for demolition of existing oil terminal facilities and provision of new oil terminal with capacity of 59,986 cu. m. and ancillary facilities

at Tolka Quay Rd., Dublin Port

Demolitions are on Alexandra Rd. and Promenade Rd., remote from and west of the proposed development. Demolition sites are SEVESO sites and the proposed development will be SEVESO upper tier.

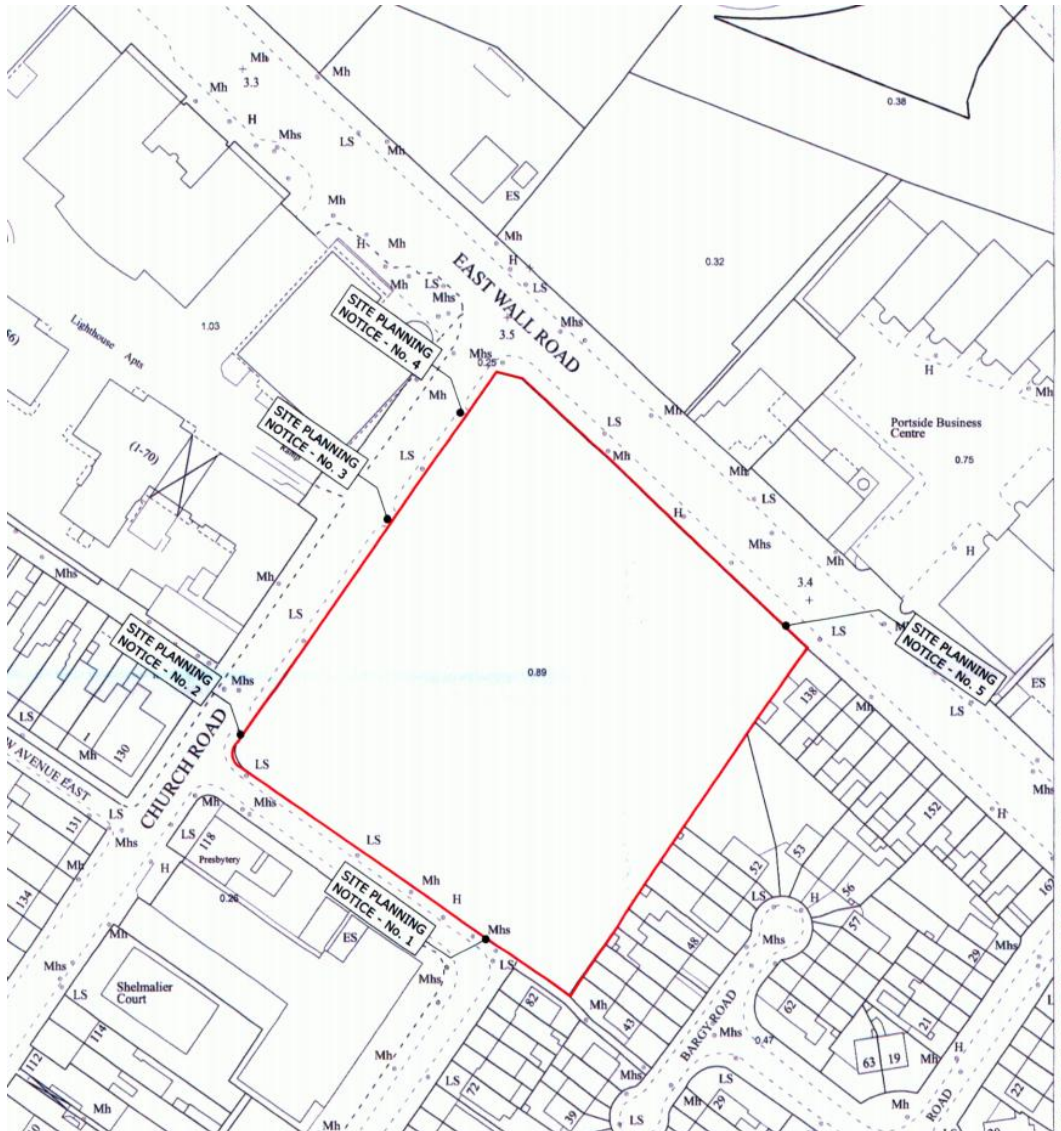
B. Temporary Vehicle Transport Bridge over M50, Dublin Port

Dublin City Council Ref. No. 3788/11

Grant of permission for 110 m. long and 6.5 m. wide single lane temporary bridge from Tolka Quay Rd., over the M50 to a site within Dublin Port Estate adjacent to East Wall Rd., which is to be temporarily adapted for the storage of imported cars and vans.

Permission granted 28.05.2012 for a period of 5 years only.

C. Former Cahill Printworks Building, East Wall Road.

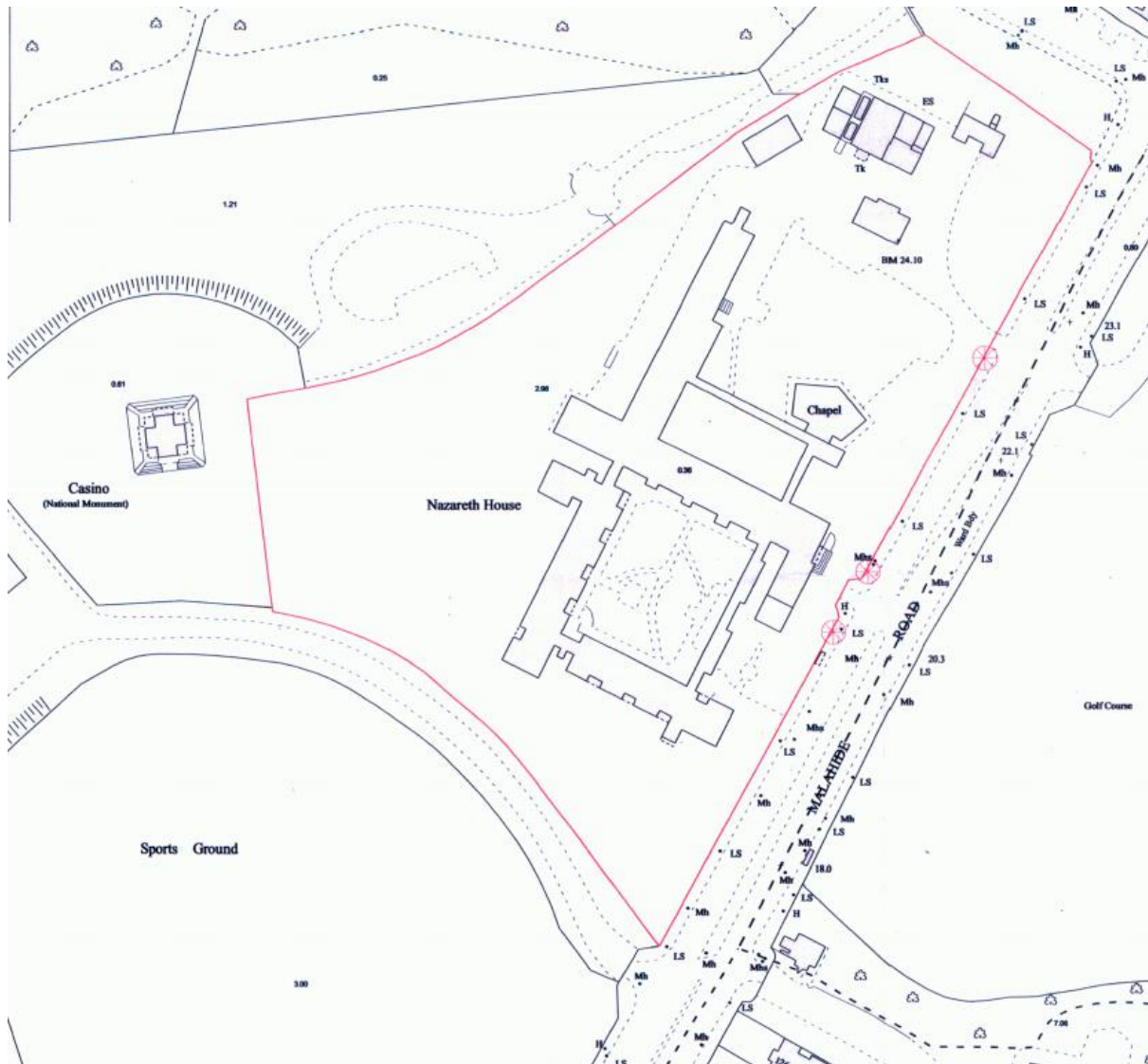


Dublin City Council Ref. No. 2555/13

Grant of permission for 5082 sq.m. food discount/gym and leisure/office building 1176 sqm. drive-through restaurant and retail building

At Former Cahill Printworks building, East Wall Rd./Church Rd., Dublin 3.

D. Nazareth House, Malahide Rd.



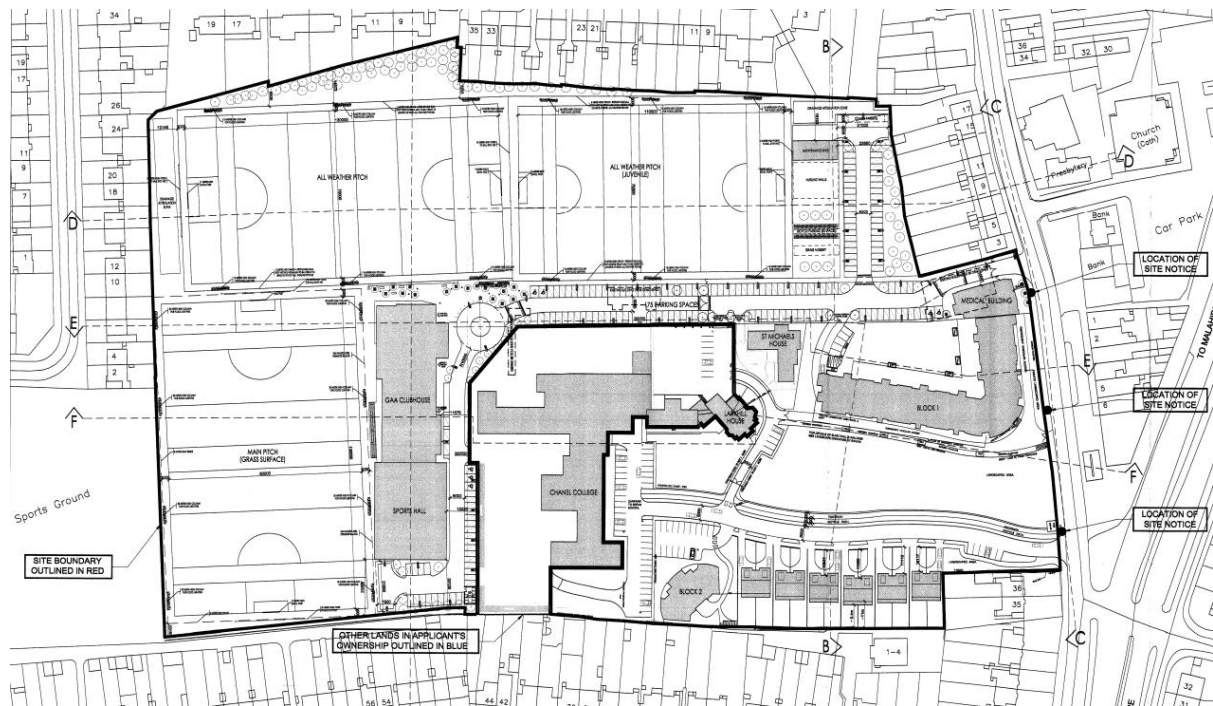
Dublin City Council Ref. No. 3252/11

Grant of permission for demolition of single storey building and construction of 30=bed convent and residential care wing and administration facilities

at Nazareth House, Malahide Rd., Dublin 3 (opposite Clontarf Golf Club).

Granted 17.01.2012.

E. Chanel College, Coolock.



Dublin City Council Ref. No. 3563/09; An Bord Pleanála Ref. No. 29.N. 235606

Grant of permission for

- a) G.A.A. sports ground including 4206 sq.m. clubhouse and 3 no. playing pitches.
- b) 77 dwellings (12 no. houses and 65 no. apartments). Number of units reduced to 76 no. by grant of permission.
- c) 514 sq.m. day-care centre
- d) Retail shop and medical centre (811 sq.m.)

at Chanel College lands, Coolock Village, Dublin 5.

Granted 30.04.2010

Dublin City Council Ref. No. 2737/11

Grant of permission for temporary (5 year) entrance to existing school building from Coolock Village and for temporary car-park (20 spaces).

Granted 17.01.2012.



F. Total Fitness Leisure Centre, Clare Hall.

Dublin City Council Ref. No. 3390/13

Grant of permission for revisions to permitted redevelopment of Total Fitness Centre, adjoining Clare Hall Shopping Centre.

The revised scheme to comprise:

1135 sq.m. health and fitness centre

1829 sqm. retail floorspace in 4 units

332 sq.m. restaurant

Bookmakers

Coffee Shop

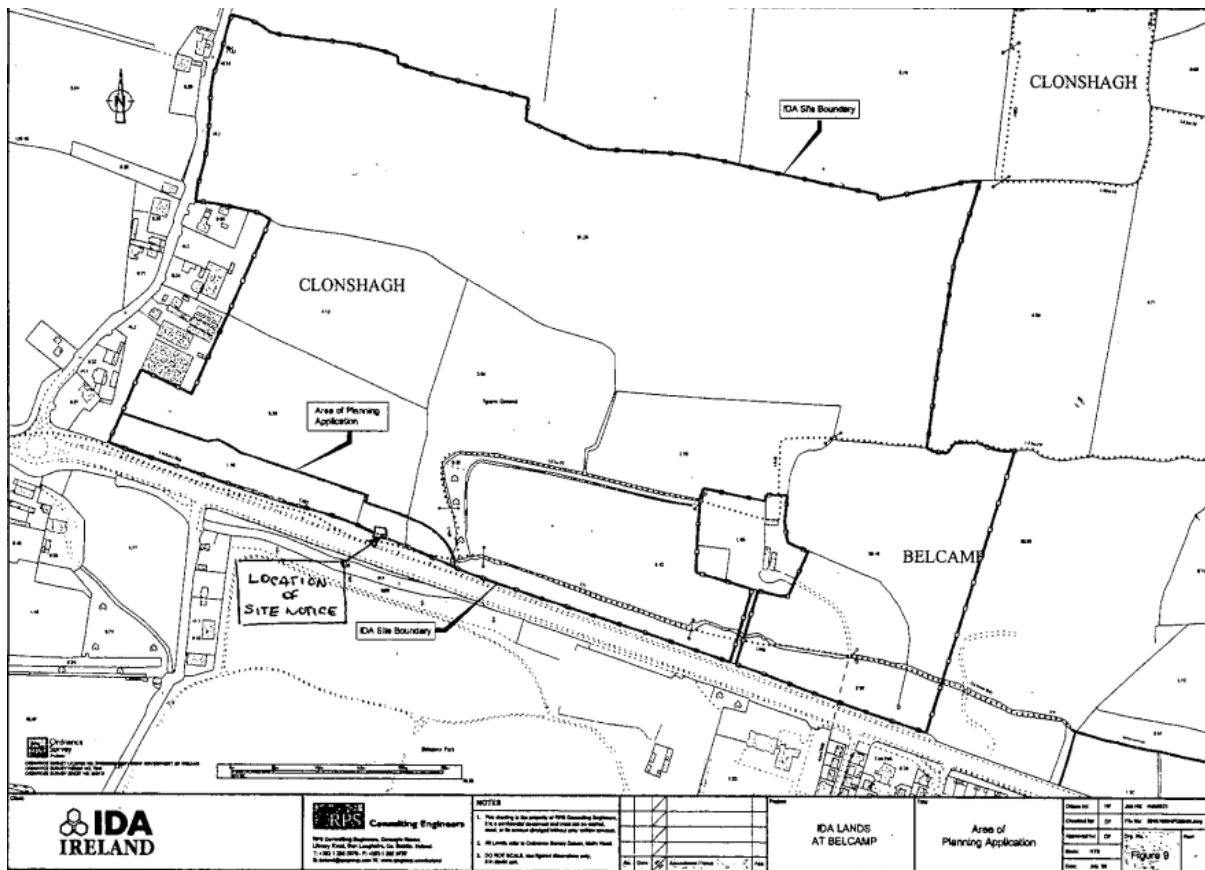
1183 sq.m. health and fitness (first floor)

First floors of shop/restaurant units.

Permission also exists (Dublin City Council Ref. No. 2460/11; ABP Ref. No. PL 29N.240108) for change of use of ground floor to 3116 sq.m. retail with 1406 sq.m. health and fitness, plus restaurant and medical centre over.

**FINGAL CO. COUNCIL ADMINISTRATIVE AREA**

G. IDA Lands, R139, Clonshaugh.

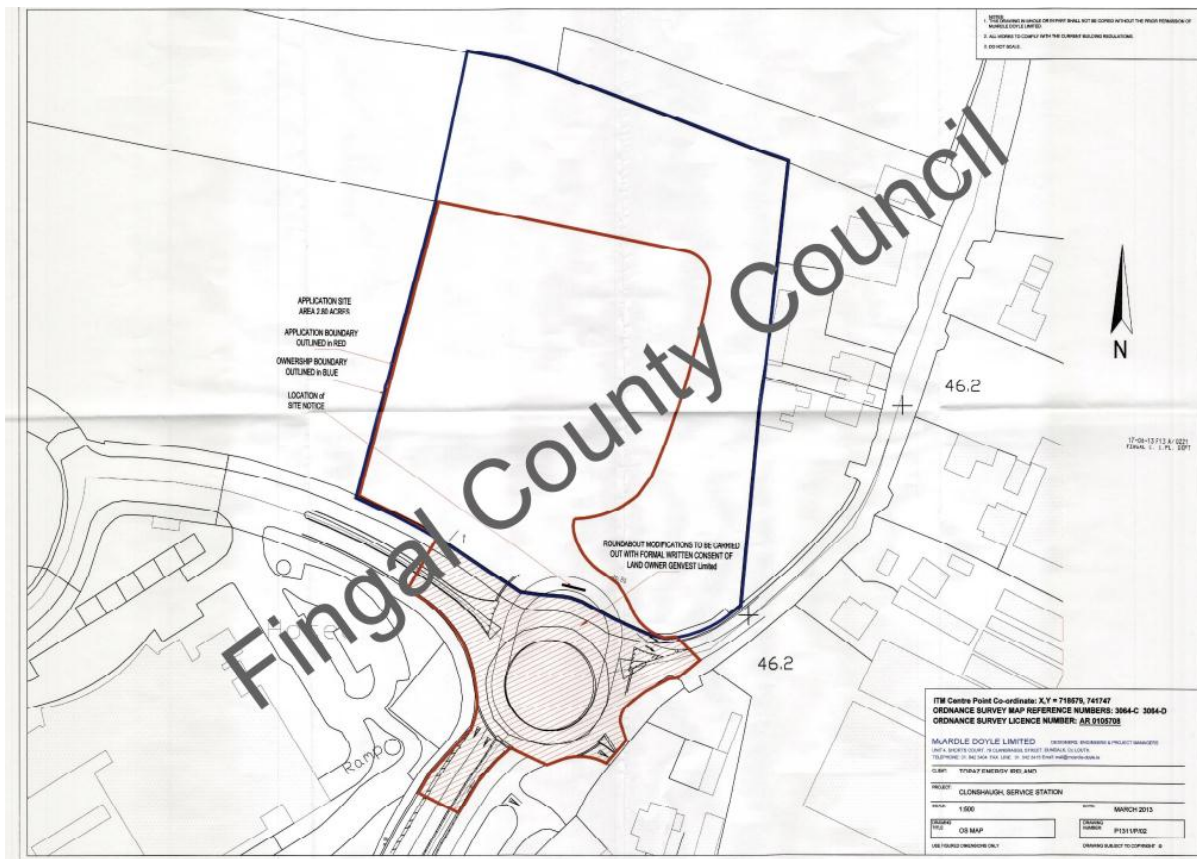


F08A/1217

Grant of permission for remediation of 1.5 ha. land on R139 at Clonshaugh, for the IDA. The proposal will involve the excavation and off-site disposal of historically deposited waste and the restoration for the area. A temporary site compound will be constructed to facilitate the works. The application was accompanied by an Environmental Impact Statement.

Permission was granted on 08.05.2009, and an extension of the duration of the permission was granted on 08.08.2014,

H. Petrol Filling Station Adjacent to Bewley's Hotel, Stockhole Lane, Clonshaugh.



Fingal Co. Council Ref. No. F13A/0221

Grant of permission for petrol filling station to include 6 no. fuel pump islands, 140,000 l capacity underground fuel storage tanks, car-wash, convenience retail, café/ restaurant, car-, coach- and bicycle-parking facilities,

adjacent to Bewley's Hotel, off Stockhole Lane, Clonshaugh, Co. Dublin.

Granted 29.04.201.

Granted 29.04.2014.

I. Hotel Adjacent to Bewley's Hotel, Clonshaugh.

Fingal Co. Council Ref. No. F08A/1305

Grant of permission for 325 bedroom hotel with associated spa and leisure facilities, meeting rooms, conference rooms, restaurant, bar and function facilities and all necessary ancillary development, in 10 storey building with 650 underground and surface car-parking spaces.

Permission was granted on 14.09.2009 and expired 14.09.2014. A decision is awaited on an application for extension of duration.

