ENGINEERS IRELAND
west

Engineers Ireland West Region,
c/o Galway Technology Centre,
Mervue Business Park,
Galway.

Website: www.engineersireland.ie

10th March 2013

An Bord Pleanála,
64, Marlborough Street,
Dublin 1.

Project:	**Galway Harbour Extension, Renmore and Townparks townlands, Galway**
Applicant:	**Galway Harbour Company**
An Bord Pleanála Case Reference:	**PL61.PA0033**
Case Type:	**Application for Permission (S.37E Application)**

A chara,

Please find attached a submission in realtion to the above on behalf of Engineers Ireland West Region. I respectfully request that the Board take into account the contents of this submission during its consideration of the above application for permission.

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B173541

Mise, le gach dea ghuí,

Cian McGuinness, Chartered Engineer
Chairman (Acting), Engineers Ireland West Region ,

posh

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Engineers Ireland West Region

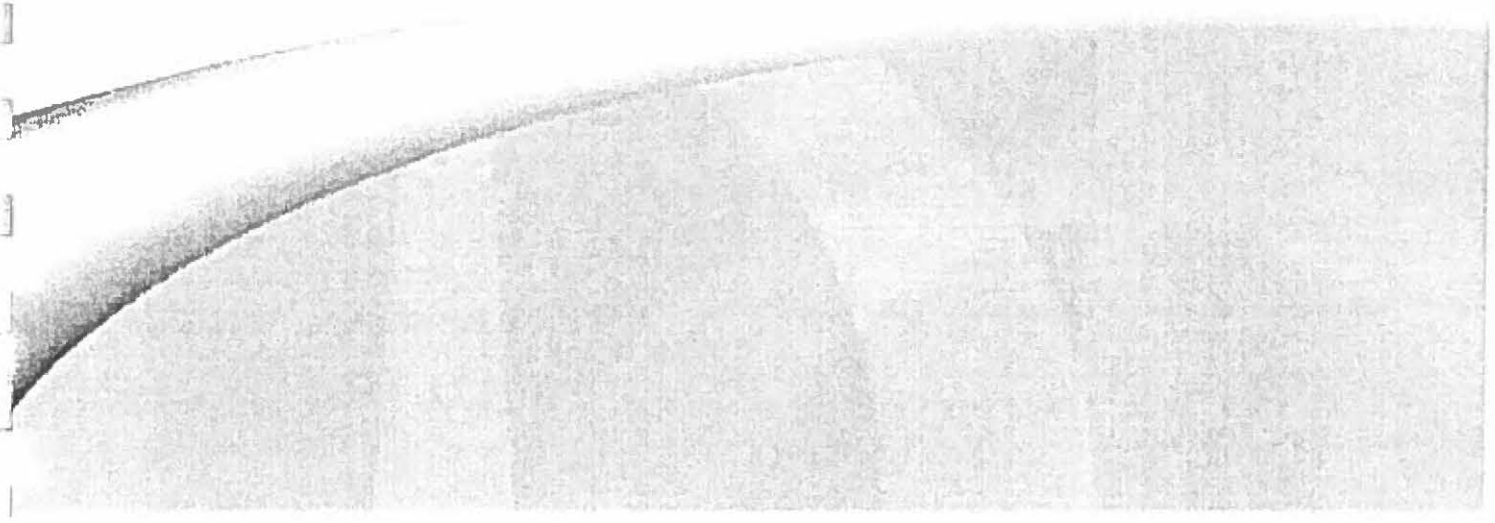
Submission to

An Bord Pleanála

in relation to

Galway Harbour Extension,
Renmore and Townparks townlands,Galway
Case Reference: PL61.PA0033

March 2014



Engineers Ireland West Region

Submission on 'Galway Harbour Extension'

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1. Introduction

1.1 Application for Permission (S.37E Application)

'Galway Harbour Extension, Renmore and Townparks townlands, Galway'

Galway Harbour Company has applied to An Bord Pleanála for permission in respect of a Strategic Infrastructure Development namely an extension to Galway Harbour at Renmore and Townparks townlands and on lands to be reclaimed from the foreshore and the sea in Galway Bay south of the existing Galway Enterprise Park which contains a Seveso site.

Engineers Ireland West Region applauds the Galway Harbour Company's vision, determination, and sense of purpose. We welcome the opportunity to make a submission in support of the proposed development. In our Report 'Engineering the West to 2020 – Reinventing our Region'[1], discussed in Section 2 below, we recommended the adoption of a sustainability framework for development and our work in developing this Report has informed our submission.

1.2 *Introduction to Engineers Ireland*

Engineers Ireland is the operating name of the Institution of Engineers of Ireland which was founded in 1835. It is the largest professional body in Ireland with a membership of almost 24,000 members from all engineering disciplines who are employed in both the private and the public sector. Its primary role is to be the representative voice of the engineering profession in Ireland.

It is organised on both a divisional and regional basis. Engineers Ireland West Region represents 2,300 members located in the counties of Galway, Mayo and Roscommon.

As engineers our work impacts on the quality of life of every individual in such diverse ways as:

- generation and distribution of electrical power,
- design of renewable energy generators
- exploration for and production of oil and gas
- design and construction of motorways,
- design and construction of piers and harbours
- design of public transport facilities,
- design and construction of hospitals and schools,
- provision of potable drinking water,
- design and manufacture of stents, artificial joints, prostheses, advanced surgical robotics, diagnostic and life support equipment,
- design of software solutions,
- design of Information and Communication Technologies
- production of pharmaceuticals,
- providing third level education, research and innovation.

Engineers also play an important role in mitigating the negative anthropogenic impacts on the environment by:

- the design of waste water treatment plants,
- the design of systems for the treatment of emissions to air which have the potential to cause air pollution,
- the design of recycling equipment and facilities,
- the development of renewable energy technologies.
- the design of flood relief and coastal protection schemes

2. Engineering the West Region to 2020 – Reinventing our Region

For a considerable period of time, Engineers Ireland West Region has had a strong focus on its contribution to the development and sustainable growth of the West of Ireland. Motivated by this ambition, a body of work was commissioned in which there was a critical assessment of the Region in terms of its resources and the enormous potential that exists. This work led to the publication of a Report in May, 2011 entitled "Engineering the West to 2020 – Reinventing our Region".

Our vision is to foster the growth of

> ***An agile and sustainable West Region, benefiting from world class industrial clusters, a vibrant economy and our rich natural and cultural heritage.***

The Report, through a series of key recommendations, spells out how this vision can be achieved. This enables Engineers Ireland West Region to identify, promote and support all those activities necessary to realise that vision, advise and support local and central government and the development agencies in their work towards achieving the potential of the West Region. Given the current pressure on public finances it is more important than ever that the scarce resources are invested in the right projects at the right time so as to have the maximum positive impact on the sustainable development of the West Region.

The report recommends the adoption of a sustainability framework based on the ten **One Planet Living®** principles[ii]. One Planet Living is a sustainability framework that was developed by BioRegional and the World Wide Fund for Nature (WWF) to enable people and organisations to live and work within a fair share of our planet's resources.

The basic concept behind One Planet Living is to encourage people to live within an ecological footprint that can be supported by the planet. At present if everybody in the world had the same ecological footprint as the inhabitants of Europe, three planets would be needed to support the global population.

The core of the framework is the use of ten guiding principles to help individuals and organisations to examine the sustainability challenges that they face, and to develop appropriate solutions. The ten guiding principles which One Planet Living promotes are outlined and briefly explained below:

- **Zero Carbon:** Making buildings more energy efficient and delivering all energy with renewable technologies.
- **Zero Waste:** Reducing waste, reusing where possible, and ultimately sending zero waste to landfill.
- **Sustainable Transport:** Encouraging low carbon modes of transport to reduce emissions, reducing the need to travel.
- **Sustainable Materials:** Using sustainable healthy products, with low embodied energy, sourced locally, made from renewable or waste resources

- **Local and Sustainable Food:** Choosing low impact, local, seasonal and organic diets and reducing food waste.
- **Sustainable Water:** Using water more efficiently in buildings and in the products we buy; tackling local flooding and water course pollution.
- **Land Use and Wildlife:** Protecting and restoring biodiversity and natural habitats through appropriate land use and integration into the built environment.
- **Culture and Community:** Reviving local identity and wisdom; supporting and participating in the arts.
- **Equity and Local Economy:** Creating bioregional economies that support fair employment, inclusive communities and international fair trade.
- **Health and Happiness:** Encouraging active, sociable, meaningful lives to promote good health and well-being.

Our comments in the following sections are informed by the "Engineering the West to 2020 – Reinventing our Region" report and the key recommendations therein. The full report and a summary of the report, the Executive Report, is available from www.irelandwest2020.org under the 'Reinventing our Region' tab.

3. Submission on the proposed 'Galway Harbour Extension'

3.1 The proposed 'Galway Harbour Extension'

Engineers Ireland West Region supports the proposed Galway Harbour Extension development on the basis that it represents an investment in sustainable transport infrastructure which will add to the competitiveness and sustainability of the West Region.

The proposed development will mean that Galway Harbour will be accessible by shipping at all times, which is an essential requirement for efficient sea cargo transport today, unlike the present situation where access is tide dependent. It will also accommodate the larger cargo vessels, now commonly in service, which cannot currently access the inner harbour due to the restricted width of the harbour gates. The inclusion of a rail freight connection to the Galway – Dublin rail line to facilitate sustainable transport by rail of freight from and to the harbour will be beneficial. The upgrading of access roads to the harbour included in the development is also welcome. A modern harbour capable of handling cargo ships of economically viable size would contribute to the attractiveness of Galway city and its hinterland for Foreign Direct Investment.

Cruise tourism is enjoying significant growth around the world at present. The provision of facilities for the docking of cruise ships will bring tourists in significant numbers into the heart of the West Region. With their international reputations Conamara, the Burren and the Aran Islands will be destinations of choice for many cruise passengers who will avail of day excursions while cruise ships are docked in Galway and have the opportunity to experience for themselves parts of the recently launched "Wild Atlantic Way". The National Museum of Ireland – Country Life, Turlough Park, Castlebar, and possibly the Céide Fields, would also be within range for day excursions. This will help to boost the local economy in the West Region.

Successful regions around the world have successful cities at their core. The proposed development of this sustainable transport infrastructure will contribute to the sustainable development and the attractiveness of Galway city and its hinterland, the West and Mid-West Regions, for Foreign Direct Investment. In fDi Magazine's "European Cities and Regions of the Future 2014/2015" the fDi Intelligence Division of the Financial Times ranked Galway City;

- 25th European City Overall,
- 1st Micro European City – Overall,
- 2nd Micro European City – Economic Potential,
- 2nd Micro European City – FDI Strategy and
- 3rd Micro European City – Business Friendliness.

The West of Ireland only featured in one category, however, being ranked 6th Small European Region – Business Friendliness. This important sustainable infrastructure investment will help Galway City to maintain its ranking and the West Region to achieve higher rankings in future.

3.2 The Opportunity Consequent to this Development

If Galway Harbour Board's application is successful, this development would free up land in the centre of the city which, together with underutilised lands at Ceannt Station, would create an opportunity to create a modern, high quality, high amenity (water frontage onto the inner harbour and marina), 'smarter'[iii], sustainable commercial and residential urban centre served by sustainable transport modes (train and bus). This potential can be realised by adopting One Planet Living's sustainability framework with its 10 principles, One Planet Communities - Common International Targets[iv] and a Sustainability Action Plan which would enable this new urban centre to become;

- a "Zero Carbon" urban centre with residential and commercial buildings designed to "Passive House" standard, with whatever energy requirements being supplied entirely from renewable sources and with maximum efficiency of energy use being achieved.

- a "Zero Waste" urban centre where residents and businesses are encouraged to reduce waste, reuse where possible and ultimately send zero waste to land fill.

- a "Sustainable Transport" urban centre designed so that residents could live and work without owning a car, and residents and visitors are encouraged to walk and cycle and use bus and rail services.

- an urban centre in which "Sustainable Materials" are used in as far as possible. Materials that are healthy sustainable products, with low embodied energy, sourced locally, made from renewable or waste resources in as far as possible.

- an urban centre where priority is given to using "Local and Sustainable Food" available from a well-designed and conveniently located farmers' market where residents can avail of local food and fish products and restaurants and bars particularly promote the consumption of locally sourced, sustainable food.

- a "Sustainable Water" urban centre in which rainwater harvesting and water conservation is the norm in all buildings and sustainable urban drainage systems are provided.

- an urban centre where "Land Use and Wildlife" would be addressed by having regard to protecting and restoring biodiversity and natural habitats through appropriate land use and integration into the built environment.

- an urban centre where "Culture and Community" are given a high profile by reviving local identity and wisdom and encouraging residents and others to support and participate in the arts.

- an urban centre where "Equity and Local Economy" are addressed by creating a bioregional economy that supports fair employment, inclusive communities and international fair trade.

- an urban centre where the residents enjoy "Health and Happiness" by living active, sociable, meaningful lives, promoting good health and wellbeing.

IBM, from their Smarter Cities Technology Centre in Dublin, are currently working with the Marine Institute in Rinnville, Co. Galway, on SmartBay Ireland[v] in relation to the Wave Energy ¼ Scale Test Site at An Spidéal. IBM would have a unique opportunity to become involved in the development of a 21st Century 'Smarter' urban centre from concept stage. This would be a huge advantage in implementing and monitoring One Planet Living's ten principles.

Such a development would revitalise the centre of the city creating an attractive environment in which people of all ages and social status could work, socialise and live in a sustainable manner – being both a living and a liveable urban centre. It would be an exemplar for other cities and towns and would attract eco-tourists. It would be a much more sustainable solution to accommodating the growth of the population of Galway City than the alternative, which would be development on the periphery of the city.

The environmental benefits of the development of a sustainable urban centre would far outweigh any negative environmental impacts associated with the development for which permission is being sought.

3.3 Locations where One Planet Principles are being implemented

In April 2013 Brighton and Hove City Council adopted a Sustainability Action Plan[vi] based on One Planet Living's 10 principles. BioRegional have endorsed Brighton & Hove as the first One Planet City.

There are currently seven fully endorsed One Planet Communities[vii] in the Australia, Luxembourg, Portugal, the UK, and the USA . They have a rigorous One Planet Action Plan with targets and strategies for each of the 10 One Planet principles which have been reviewed as part of BioRegional's endorsement process and have made a commitment to monitor performance until 2020.

There are other communities around the world where the One Planet Principles are being used to guide their approach to sustainability but they have not been granted endorsed status by BioRegional. Among them is Barangaroo[viii], Sydney, Australia.

4. Other Sustainable Infrastructure Developments of importance to the West Region

The proposed Galway Harbour Extension development, a Galway City Outer Bypass, completion of the N17/N18 from Gort to Tuam, upgrading of the N5, the development a state-of-the-art integrated public transport hub for bus and rail at Ceannt Station and a new R336 route along the Conamara coast should be considered as key sustainable infrastructure developments critical to maintaining employment in and attracting further foreign direct investment to the West Region.

5. Summary

Engineers Ireland West Region respectfully requests that, in considering the application for permission for the Galway Harbour Extension, the Board also considers the consequent opportunity that would arise from this development, namely the opportunity to develop a 21st century residential and commercial urban centre in accordance with a sustainability framework, such as that promoted by One Planet Living.

Appendix A – Engineering the West Team

The following are the members of the Engineering the West Team, a sub-committee of Engineers Ireland West Region, which prepared this submission;

Dr Finbar Dolan, Chartered Engineer, Technical Director & Plant Manager, Lake Region Medical Ltd

Dr Annette Harte, Chartered Engineer, Department of Civil Engineering, NUIG

Dr Michael Madden, Chartered Engineer, Department of Information Technology, NUIG

Brendan Mulligan, Chartered Engineer, Director of Property & Engineering (WR), Údarás na Gaeltachta

Brian Mulry, Chartered Engineer, Director, PMS Pavement Management Services Ltd

Professor Padraic O'Donoghue, Chartered Engineer, Department of Civil Engineering, NUIG

Justin Tuohy, Chartered Engineer, Director, Integrated Project Management

Queries or comments in relation to the submission may be addressed to the Engineering the West Team by contacting;

Engineers Ireland West Region,
c/o Galway Technology Centre,
Mervue Business Park,
Galway.

Email: west@engineersireland.ie

Appendix B - References

[i] "Engineering the West Region to 2020 – Reinventing our Region" published by Engineers Ireland West Region

http://www.irelandwest2020.org/index.php?option=com_content&view=article&id=61&Itemid=75

[ii] One Planet Living is an initiative based on 10 guiding principles of sustainability developed by BioRegional and the World Wide Fund for Nature (WWF)
http://www.oneplanetvision.org/one-planet-living/opl-framework/

[iii] IBM Smarter Cities

http://www.ibm.com/smarterplanet/ie/en/smarter_cities/overview/index.html

[iv] One Planet Communities – Common International Targets

http://www.oneplanetcommunities.org/wp-content/uploads/2010/02/Common-International-Targets-FINAL-low-res-2011.pdf

[v] SmartBay Ireland

http://www.smartbay.ie/Home.aspx

[vi] Brighton & Hove's Sustainability Action Plan

http://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/PandR%20version%20OPL%20SAP%283%29%20with%20Forewords.pdf

[vii] Endorsed One Planet Communities

http://www.oneplanetcommunities.org/communities/endorsed-communities/

[viii] Barangaroo, Sydney, Australia, A community applying the One Planet Living principles

http://www.oneplanetcommunities.org/communities/applying-the-principles/barangaroo/