

# ***Tralee Town Council Mitchels Boherbee Regeneration***



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# Tralee Town Council

## Mitchels Boherbee Regeneration

- In 2004, Tralee Town Council identified the Mitchels/Boherbee area of the town as being in need of major regeneration to deal with the underlying physical, economic and social problems that have affected the area to an increasing extent in recent years.
- The Town Council , Statutory and Non-Statutory agencies in Tralee, together with the local community , have worked closely together to develop a Framework Plan for the improvement and regeneration of this area.
- In 2008, the DOEHLG formally designated the Mitchels/Boherbee area of Tralee as a Green Regeneration Project
- The overall responsibility for ensuring the objectives of the Framework Plan are achieved lies with the Mitchels/Boherbee Community Regeneration Steering Committee which is a multi-agency partnership structure.



# Mitchels Boherbee Regeneration

## The Role of Mitchels/Boherbee Regeneration Steering Committee is:

- To take overall responsibility for the planning and implementation of the Regeneration Plan.
- To ensure an appropriate plan is developed and implemented with agreed/realistic targets.
- To support and enable the work of the task/working groups which will include additional stakeholders relevant to specific tasks.
- To ensure appropriate community/agency input in the development/implementation of the plan.
- To review and monitor reg



# Mitchels Boherbee Regeneration

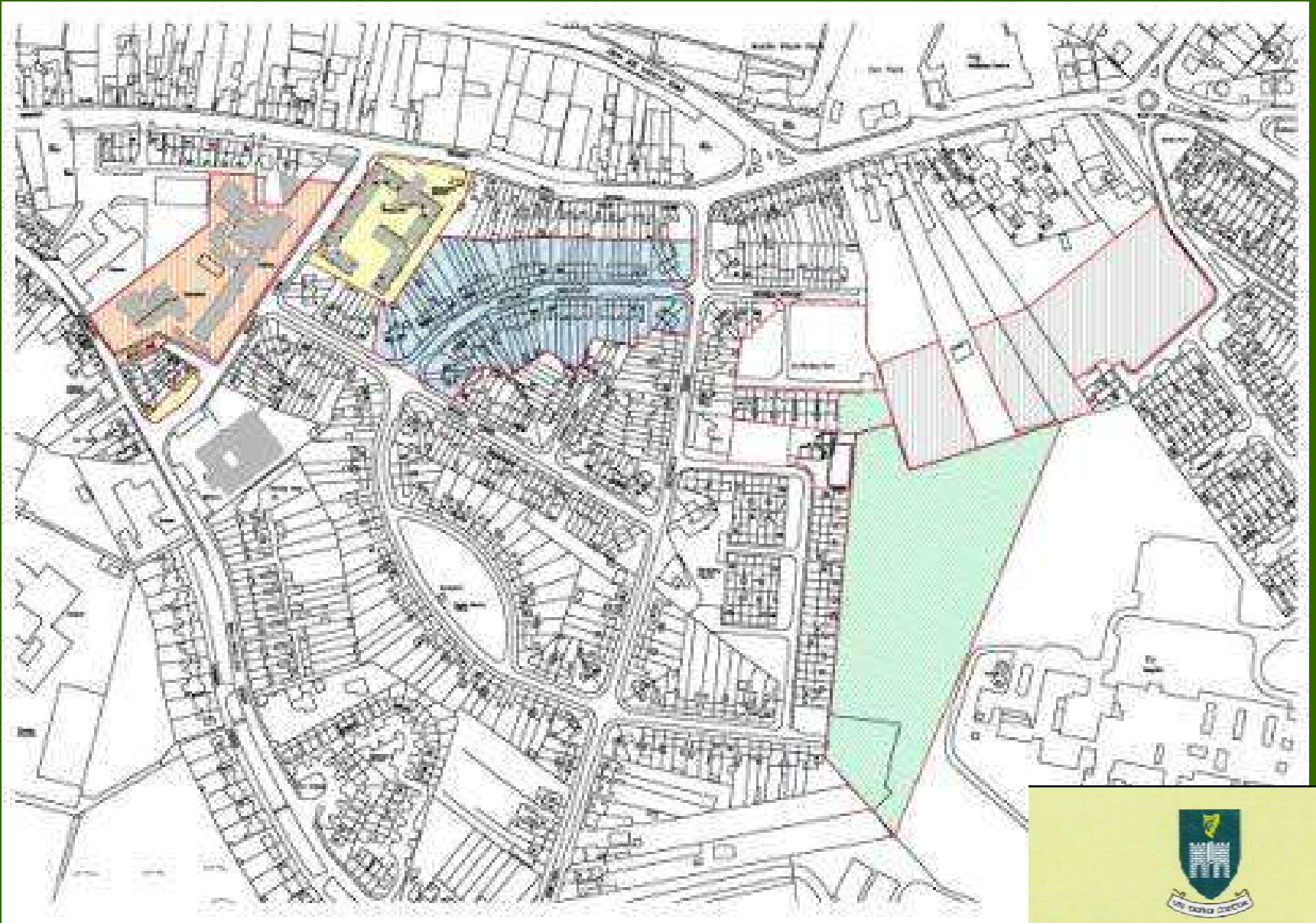
## Vision Statement

**Establish an Energy Efficiency self sustaining area meeting the identified demand, transforming the local economy base through job creation and achieving a high living standard and excellent quality of life.**



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# Mitchels/ Boherbee Regeneration Plan



# TOBAR NAOFA



**SITE PLAN**



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# TOBAR NAOFA

## HIGH QUALITY, ACCESSIBLE ACCOMMODATION FOR THE ELDERLY

- In November 2008, Tobar Naofa was completed as part of Phase One of the Regeneration Project
- Consists of 41- Apartments and caretaker accommodation.
- Fully accessible and designed for independent living by the elderly.
- Secure Living : On-site resident caretaker, controlled access gate from Dean's Lane and private open space
- Heat on demand at low cost



# ***TOBAR NAOFA***



# SUSTAINABILITY

- **Economic Sustainability** in re-using a brown field site close to the town centre and achieving a density of 44 units per hectare.
- **Social Sustainability**- by providing a safe environment for elderly people to live independently within their community and with back up services at hand.
- **Environmental Sustainability** by reducing the energy demand of the residents and the use of a sustainable fuel.



# ***TOBAR NAOFA***

- **GREEN DEVELOPMENT**
- **Designed to SEI 'House of Tomorrow' standards i.e. 40% better insulated than the 2005 Building Regulations**
- **Average annual saving of 0.8 tonnes of CO<sub>2</sub> / €200 per 2-bed apartment per year**
- **Renewable resource- Wood Chip- fuelled District heating system sourced locally**



# Wood Chip Boilers





# weyvor and Store



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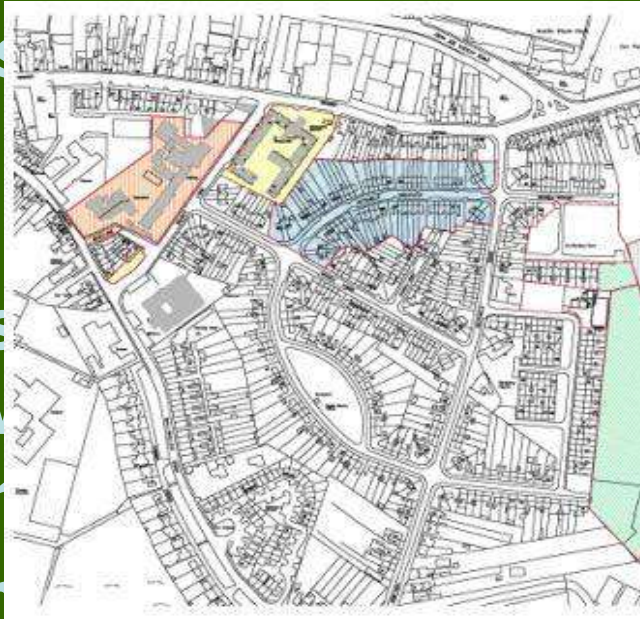
# Wood Chip Conveyor and Store

- The Wood Chip is unloaded into the underground conveyor.
- The Chip is then transferred into the 80m<sup>3</sup> Fuel Store.
- Unloading of a six ton delivery takes ½ hr. approx.



# Plant Room

- Two 500kW Hertz Wood Chip Boilers each with an auger feed and fuel store.
- The boilers are on duty/assisted and linked to two fuel store buffers.
- Distribution is on a separate branch, pump and district heat pipe for each block of apartments and spare connections for future demand.



# Heat Meter

- The kWh heat output from the Boiler Plant is recorded on the Heat Meter.
- The Wood Chip Supplier records the reading at each delivery for billing purposes.
- The Supplier bills the Council on kWhs of heat produced.
- North Kerry Wood Chip, Knocknagashel, is the present fuel supplier.



# Grant Support

- **The Biomass Boiler Plant was Grant funded by Sustainable Energy Ireland SEI under their Renewable Heat Deployment Programme.**



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# District Heating System

- District Heat Pipe Network to each apartment block providing temperature controlled Space Heating and instant Hot Water on demand at low cost.
- Supplying water at 80°C throughout the development



# Heat Distribution Substation

- Heat exchanger for instant hot water with anti-scald control.
- Underfloor heating manifolds with circulating pump and temperature limiting control.
- Time clock to control space heating times..
- Heat Meter measuring Kilowatt Hours.
- Pre-Payment Card System linked to an isolating valve.



# Underfloor Heating

- Energy efficient uniform heating throughout the apartment.
- Underfloor network designed to operate at low temperature 35°C.
- Heat thermostatically controlled in each unit
- Heat store is built up gradually - no peak demands on Boiler Plant



# Pay Pino Heat Meters

- Pre payment fuel credit through a credit card type system
- Heat sold at 5 cents per kWh compared to 10 cents for oil.
- Designed to address fuel poverty for the elderly
- Heat thermostatically controlled in each unit



# GREEN DEVELOPMENT

- **Tralee Town Council will save up to one tone of carbon based on the fuel type used**
- **TTC will save over €100,000 a year in fuel bills.**
- **Additional metered heat will be sold to adjoining School, Library, 11 no. Low carbon homes, existing 12 no. units in Deans Lane and Integrated Services building**
- **On-going monitoring by Client to access efficiency of system**
- **LED site lighting**



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<b>Phase</b>	<b>Reference</b>	<b>Number of Units</b>	<b>Planned Completion Date</b>	<b>Heat Demand (kW)</b>	<b>Total Load Requirements</b>
<b>1</b>	<b>Tobar Naofa</b>	<b>42</b>	<b>2008</b>	<b>180</b>	<b>180</b>
		<b>6</b>	<b>Oct-10</b>	<b>24</b>	<b>204</b>
<b>1</b>	<b>Library</b>	<b>1</b>	<b>Sep-10</b>	<b>270</b>	<b>474</b>
<b>1</b>	<b>School</b>	<b>1</b>	<b>Nov-10</b>	<b>200</b>	<b>674</b>
<b>1</b>	<b>Dean's Lane and Mitchell's Avenue to cross road</b>	<b>36</b>	<b>Nov-10</b>	<b>252</b>	<b>926</b>
<b>1</b>	<b>11 Low Carbon Homes + 7 other new units</b>	<b>18</b>	<b>Nov-11</b>	<b>84</b>	<b>1010</b>
<b>2</b>	<b>St. Bridget's Voluntary Housing</b>	<b>22+18</b>	<b>Jun-11</b>	<b>246</b>	<b>1256</b>
<b>1</b>	<b>Convent Building incorporating eight Apartments and a Health Facility</b>	<b>8 + Day care centre</b>	<b>Oct-11</b>	<b>230</b>	<b>1486</b>
<b>2</b>	<b>New Heat Center required</b>	<b>2 MW boilers</b>	<b>Sep-11</b>	<b>0</b>	<b>1486</b>
<b>2</b>	<b>St. Bridget's Community Centre</b>	<b>1</b>	<b>Nov-11</b>	<b>180</b>	<b>1666</b>

# Acknowledgements

**Project Design and Management: National Building Agency**

**Madeline Hallinan**

**Architect NBA**

**Paul Martin**

**Building Services Engineer NBA**

**Norman Jackson**

**Quantity Surveyor NBA**

**Liam McGarry**

**Structural Engineer NBA**

**Main Contractor: Fitzgibbon Builders, Clare – Sean Fitzpatrick**

**Domestic Plumber:**

**Stephen Culliney, Clare**

**Biomass Boilers and Plant Room: Filtrex, Dublin – Brendan Lynch**

**Tralee Town Council Clerk of Works:**

**John Casey**