Bonneagar Iompair Éireann
Transport Infrastructure Ireland

LANDSCAPE PLAN

October 2023

1 Landscape Plan

1.1 Purpose of the Landscape Plan?

The range of landscape types through which linear transport corridors travel, demonstrates the enormous potential for positive and sustainable interactions with these local landscapes – from small scale planting to wider habitat enhancements – all the while addressing transport safety concerns and maintaining performance standards. Transport Infrastructure Ireland (TII) as a provider of transport infrastructure is in a unique position to have a positive influence on the Irish landscape. Currently, there are approximately 3,500ha of Landscape adjacent to National Roads and Motorways. This is approximately 5 times the size of the Phoenix Park in Dublin, as well as the landscape and public realm associated with our Luas network.

As a state agency, TII has commitments under Project Ireland 2040, the Programme for Government, but also the UN Sustainable Development Goals and the European Green Deal, e.g., EU 2030 Biodiversity Strategy. Other National policies include Irelands the Climate Action Plan, 4th Biodiversity Action Plan (draft),and the National Landscape Strategy for Ireland 2015-2025 which provides a policy to protect, manage and properly plan for the sustainable stewardship of landscapes associated with transport infrastructure.

"Sustainable stewardship of landscapes"

This Landscape Plan integrates the policy objectives of TII's Biodiversity Plan. The aims and actions regarding these aligned topics will be applied to all TII projects along our National Road and light rail networks.

Figure 1: TII Linear Landscapes, transport corridor landscapes adjoin many local landscape typologies

TII's Sustainability Implementation Plan (SIP) sets out a starting point when it comes to the broader context of sustainability enabling TII to build on existing strengths and embed sustainability across the organisation. In the SIP there is a clear vision for sustainability through six guiding principles and a roadmap of concrete actions that will guide us on a path to a more sustainable future. How TII designs, constructs and maintains all our transport linear landscapes are a key part of this sustainable approach.

Figure 2: Extract from TII's SIP which illustrates how Landscape and Biodiversity are core elements in our short, medium and long term Sustainability actions.

5 years (by 2026)

- Investigation into restoration of degraded ecosystems through sustainable management and continuing to address biodiversity loss, protecting nature and restoring habitats.

10 years (by 2031)

- Bring nature back into our lives in accordance with the EU Biodiversity Strategy.

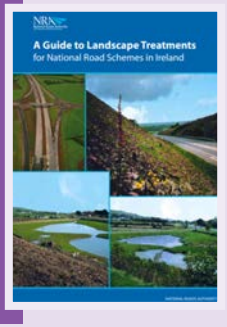
15+ years (by 2036)

- Biodiversity conservation and green infrastructure directing economic benefits across sectors of our economy and improving rural livelihoods.

TII Landscapes have historically been based on self-sustaining, pioneering and succession of species using native species (but not exclusively) and species with high ecological value. TII's has published a number of guidance documents for the planning and implementation of linear transport landscape on national roads including:

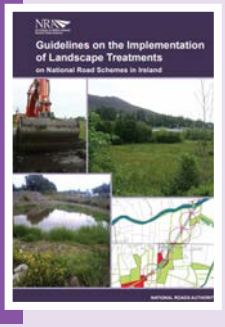
A Guide to Landscape Treatments for National Road Schemes in Ireland

NRA LandscapeV8.indd (tii.ie)



Guidelines on the Implementation of Landscape Treatment on National Road Schemes in Ireland

GE-ENV-01103 (tiipublications.ie)



Landscape Character Assessment (LCA) and Landscape and Visual Impact Assessment (LVIA) of Specified Infrastructure Projects - Overarching Technical Document

PE-ENV-01101 (tiipublications.ie)

A proactive landscape plan allows TII to design and manage this considerable investment, be it for example motorway planting in the urban or rural landscape, roadside villages along our national road network or high-quality public realm projects associated with road or light rail or other public transport networks through Ireland's cities and towns.

Figure 3: Types of TII Transport Infrastructure in the Irish Landscape, from Landscape Character Assessment (LCA) and Landscape and Visual Impact Assessment (LVIA) of Proposed National Roads - Standard PE-ENV-01102

Figure 4 – Pollinator friendly planting to highlight road junction, Lismore N72

1.2 TII's Landscape Plan – A vision for Landscape.

TII recognises that a proactive approach to the design and management of our linear transport corridor landscapes, with clear objectives, is required. One that harnesses national and international policy, emerging technology and sustainable approaches to address landscape management and biodiversity loss.

This Landscape Plan enables the following

- Ensure TII linear landscapes maintain transport corridors **functionality, efficiency and safety**
- ensures **proactive design and management** leading to increased operation efficiency, reduced risk and is adaptable to evolving/maturing landscape
- **balance** the need for immediate landscape action with long term landscape management goals
- manage **risk** and ensure cost effective design and management of the landscape asset
- develop landscape design and management guidance and techniques to create a **sustainable, resilient, innovative** and a more **cost-effective** landscape resource
- Aim for **no net loss for biodiversity** and strive for **net gain for biodiversity** using appropriate accounting metrics for linear landscapes
- Improve **ecological connectivity** within the landscape.
- inform Local Landscape Management Decisions
- minimise waste and encourage renewable resource management
- be compliant with all relevant national and international policy and legislation.

This TII Landscape Plan aligns with TII's Sustainability objectives and corporate obligations relating to:

- landscape design, planning and management
- biodiversity
- green infrastructure
- circular economy
- planning commitments
- creating value for communities along transport corridors
- climate change mitigation and adaptability
- minimising waste and renewable resources

This landscape plan informs the development of landscape standards and procedures so ensuring that landscape treatments are designed and managed so they are appropriate to, and function within, the surrounding Irish landscape while also ensuring that the safety and performance of the transport corridors.

Figure 5 TII Linear Landscapes, transport corridor landscapes adjoin many local landscape typologies

"Biodiversity, conservation and green infrastructure direct economic benefits across sectors of our economy and improve rural livelihoods."

TII Sustainability Implementation Plan, 2021.

1.3 What has informed this Plan

The TII Landscape plan is informed by TII's experience of the challenges and opportunities of linear landscape running alongside our transport routes

- Understanding the need for transport corridor safety and performance issues to be embedded in landscape decisions.
- As the landscape assets matures across the TII network we are aware of the need to cater for landscapes at varying stages of maturity and adapting and changing landscape management approaches across its natural life cycle.
- Past and current landscape trials, including changed mowing regimes to benefit pollinators, allow informed landscape management decision be made with known benefits and consequences.
- Acknowledging the importance of local landscape and community context and the need to develop transport corridor linear landscapes with different design solutions for these different contexts.

Figure 6: Some of the varied types of linear landscapes along TII Transport Corridors.

M6

Woodland planting along TII motorway networks with a focus on native species and self-sustaining planting strategies

Luas Tallaght

More detailed planting schemes along towns and city transport corridors where trees are generally chosen for specific functions such as screening, avenue creation etc.

Birr N52

Existing and veteran trees which adjoin the routes but also add great value.

Figure 7: Improved streetscapes are a long terms investment in local communities, N76

TII Landscape Plan will address:

- long term investment in landscape to ensure that planning and design guidance results in the successful creation and management of resilient, self-sustaining and functional landscapes.
- medium-term priorities which allow TII and its service providers to facilitate successful landscape management through robust contract requirements and reviews
- the successful and consistent implementation of short-term and day-to-day maintenance and operational procedures to support long term landscape management aims.

1.4 What are the objectives of TII's Landscape Plan?

Four key objectives

Objective 1

Ensure a high standard of Landscape and Streetscape Design

- Develop proactive landscape design and management guidance which ensures we maximise the function and value of landscape treatments in all settings and transport corridor scales from motorways to greenways. Achieving maximum benefits across a range of ecosystem services through collaboration with stakeholders and local communities.
- The successful delivery of TII Landscape Plan will require a collaborative approach to working with skilled and experienced personnel such as Landscape Architect and Urban Design consultants, other government agencies, local authorities and community groups.
- Engaging with all divisions in TII to encourage the multidisciplinary approach to TII landscape design and management. Critically, ensure the integration of biodiversity and landscape expertise at the appropriate phase of project planning.
- Forward planning to deal with the likelihood of the impacts of climate change on the health of the landscape and the safe operations of our transport corridors including more severe weather events from heavy snow fall damaging tree limbs to extended periods of drought causing excessive stress on established habitats and woodlands.
- Ensure the planning, design, and implementation of landscape design along transport corridors and in and around settlements, evolves to embrace new thinking and technologies. Conversely, in some cases, we need to revert to more sustainable traditional solutions and prioritize local material reuse.

Figure 8: Landscape to enhance ecological and amenity value of new transport Corridors, Luas Finglas

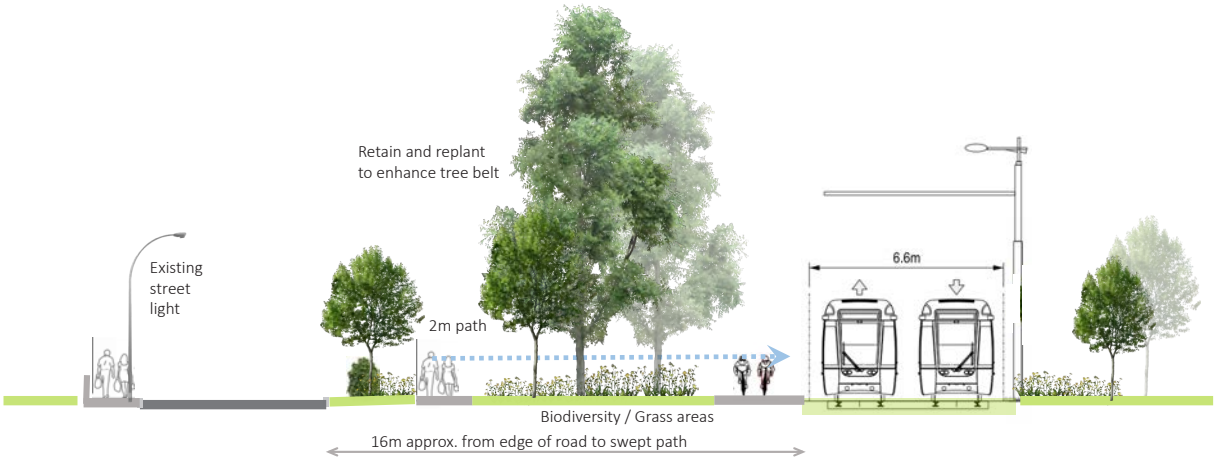


Figure 9: Roadside trees create a visual buffer, restrict access to the rail lines and enhance the streetscape along the Luas line at Tallaght, Cookstown Road. By planting roadside trees there is the opportunity to build community wealth as they are a long-term investment in the local environment.

Objective 2

Ensure TII develops high quality, consistent, cost effective and adaptable landscape design and management practices and standards.

- Ensure strategic long-term design and day to day management align with Global, European and National policies
- Mapping the resource through GIS and appropriate technology. Establishing baseline Data and ongoing reporting and mapping procedures to continually monitor the landscape resource as it grows and alters, aiming for continuous improvement
- Updating standards and specification based on new research, new technologies, scientific investigations and available objective data which will ensure they are up to date.
- Establishing standardised landscape management processes for habitat types and specific elements of the landscape such as hedgerows, grasslands etc. to ensure consistency of management standards across the whole of the road and light rail network.
- TII Landscape Management to continually monitor and report on contract and project performance, be it design, establishing phase or management, to ensure adherence to Landscape and Streetscape Design standards.
- Landscape trials where specific landscape design and management issues have been identified and where the cost benefit of landscape management approaches can be fully examined to help guide future management standards.
- Understanding and valuing the full range of ecosystem services TII landscapes provide with a holistic approach to our landscape asset. Landscapes are designed to be multifunctional and work within the unique requirements of our transport corridors (e.g., roadside screening or habitat creation, wetland management as part of drainage, etc.)

Figure 10: The value to society of street trees planted along Main Street Abbeyleix N77. Trees promote physical and mental health for urban and town residents. Research shows that trees reduce traffic speeds and create safer streets. They can improve air quality along our streets when the correct species is chosen.

Objective 3

Assist in fulfilling TII's planning and strategic commitments with regard to landscape

- Protecting designated landscape and habitats through design, implementation and management approaches
- Ensuring compliance with planning commitments through design, implementation and management approaches
- Communicating how and why TII landscapes are fulfilling TII corporate objectives
- Establish a standardised approach to communication and engaging with adjoining communities and landowners when designing landscapes or when landscape management issues arise involving boundaries and adjacent lands to our transport corridors.
- Respecting the local landscape context and building on the sense of place of each locality encountered along our routes

Figure 11: M8, Cork. Transport landscapes can provide habitat enhancements and reinforce ecological corridors when correctly planned, designed and maintained.

Objective 4

Ensure an appropriate response to associated Government Strategies and Policies including those on nature-based Solutions, SUDS, sustainability, biodiversity and blue-green infrastructure, resilience and climate change

- Aligning with and supporting TII's biodiversity plan.
- Ensuring our landscape are resilient throughout their whole life cycle and can address the challenges associated with biodiversity loss and climate change while providing benefits to local communities.
- Incorporate Nature Base Solutions at all scales.
- Investigating the value of existing or planned TII landscapes regarding carbon storage and sequestration.
- Developing action plans to deal with extreme weather events including severe winter storms and periods of summer droughts.
- Developing educational and community liaison programmes, where feasible and necessary
- Ensuring we can adapt our landscape plan in response to any future biosecurity issues, for example Ash die back, and assist with any future Government control strategies.
- Mapping infrastructural landscapes in conjunction with the National Landscape Character Assessment (NLCA) ensuring appropriate responses and managements to the context and landscape character of the areas we traverse.
- Understanding, measuring and valuing our landscape resource through research into landscape metrics linked to natural capital principles.

Figure 12: Hedgerows have important biodiversity and carbon functions

Figure 13: Trees at Windy Arbour Luas Stop. New tree pits are being designed with the added benefit of retaining water to reduce the flow of surface runoff being conveyed underground into drainage pipes. Runoff can be absorbed on site before reaching our treatment plants or water courses.

1.5 Summary

The aim of the TII Landscape Plan is to provide considered and practical guidance into all stages of our landscape's evolution from initial design to long-term management. While we have focused much of our efforts to date on guidance focussed on the design and implementation stages, as our landscapes mature, we are turning our attention also to the successful ongoing and future maintenance of this valuable asset.

The Plan focuses on the fact that TII Linear Landscapes are multifunctioning assets with benefits for all of society in addition to their practical functions as part of our transport corridors.

Bonneagar Iompair Éireann
Transport Infrastructure Ireland

Ionad Ghnó Gheata na Páirce,
Stráid Gheata na Páirce,
Baile Átha Cliath 8, D08 DK10, Éire

Parkgate Business Centre,
Parkgate Street,
Dublin 8, D08 DK10, Ireland

+353 (01) 646 3600

+353 (01) 646 3601

www.tii.ie

info@tii.ie