

The Treatment of Transition Zones to Towns and Villages on National Roads

DN-GEO-03084

Updated Version 2021

Eimear Fox

Landscape Architect



It requires **different design solutions** for **different contexts**.

Published August 2018

Updated July 2021

A supplement to DMURS



TII Publications



The Treatment of Transition Zones to Towns and Villages on National Roads

DN-GEO-03084
August 2018



Standards

Design Manual for Urban Roads and Streets

Website www.dmurs.ie

2019 DMURS version

and

Supplementary Material/ 5 Advice Notes

Launched August 2019



An Roinn Iompair,
Turasoireachta agus Spóirt
Department of Transport,
Tourism and Sport



An Roinn Tithíochta,
Pleanála agus Rialtais Áitiúil
Department of Housing,
Planning and Local Government



Bonneagar Iompair Éireann
Transport Infrastructure Ireland

TII Publications

GE PE DN CC OP AM RE

The Treatment of Transition Zones to Towns and Villages on National Roads

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DN Design

Standards

1.0 Introduction

This advice note defines the meaning and function of Gateways and Transition Zones as they apply to the approaches to our towns and villages. It also explains the function of gateways and transition zones in relation to speed reduction/ passive traffic calming, wayfinding and place making. It describes the analytical process required to allow designers identify:

1. the extent of the transition zone, and
2. the optimum position of gateways.

This is followed by guidance on the design of gateways and transition zones.¹

A transition zone is the zone between the rural environment and more urbanised development. It is an area where speed reductions must occur when entering an urban area from a higher speed road (see Figure 1).

Gateway features are easily identifiable elements along the route which signal a change of context. These gateways can be used to influence driver behaviour, wayfinding, and signal an entrance to an urban area.

To identify the extent of a transition zone and suitable locations for gateways, the designer must analyse the street or road to see where the context changes, ie: where the context transitions from rural fringe to village/town centre.

1.1 Street Context - Classification and Method for Analysis

In most circumstances the characteristics of a place enable straightforward classification of its context, eg: Rural; Transition Zone; Town (see also Figure 2). However, there are places where context is more ambiguous. In such cases designers are required to carry out an analysis to identify the context of a place.



Figure 1 Illustration of a typical inner and outer Gateways, and Transition Zone from a rural road to a town/village.

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¹ For urban national roads, the designer is also required to comply with DN-GEO-03084 Treatment of Transition Zones to Towns and Villages on Urban Roads (2018).

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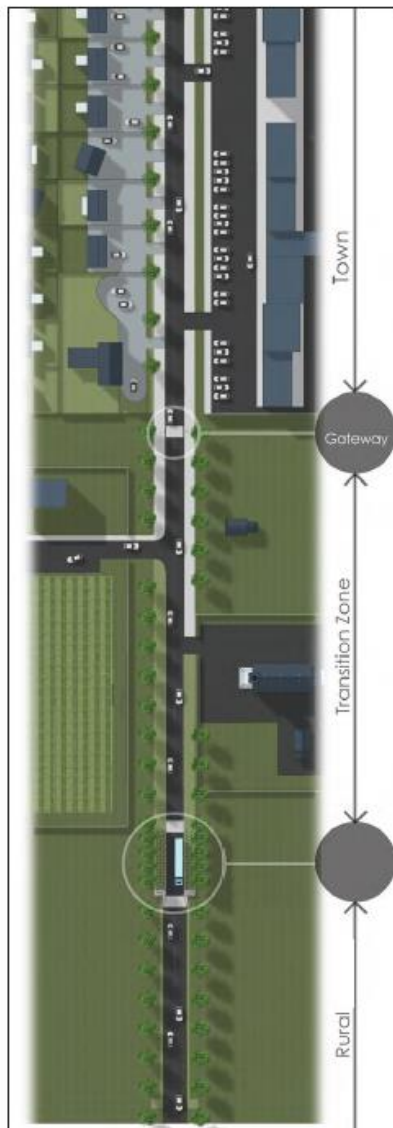


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2021- 20205

Purpose

- To provide sustainable transport infrastructure
- Deliver better quality of life
- Support economic growth
- Respect the Environment



2021

- Provide effective, equitable and efficient mobility
- Enable safe and resilient networks
- Collaboration
- Deliver end to end improvements (CE)
- Transition to net zero
- Create total value for society

What has changed in the document between 2018 and 2021?

2021

SCOPE

- Traffic Calming Measures
- School Zone / Community Facilities
- Pedestrian Crossings
- Pedestrian Comfort Assessment

2018

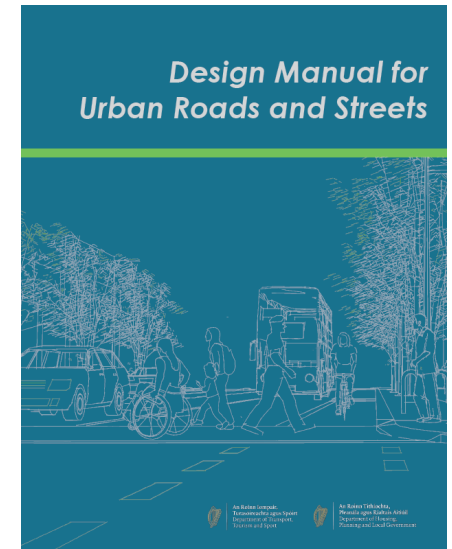
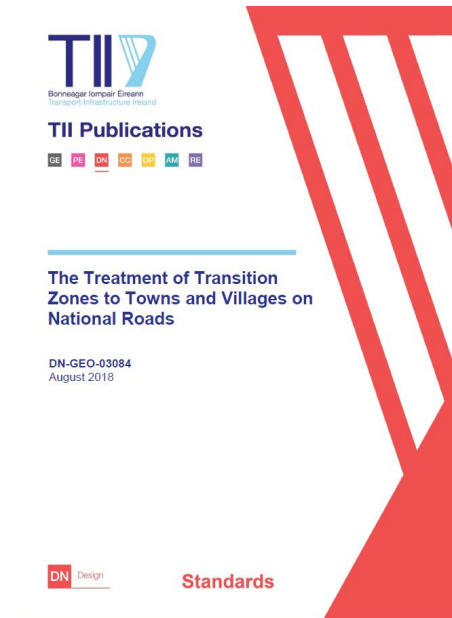
SCOPE

- Traffic Calming Measures
- Pedestrian Crossings

The Treatment of Transition Zones to Towns and Villages on National Roads

Traffic Calming Measures

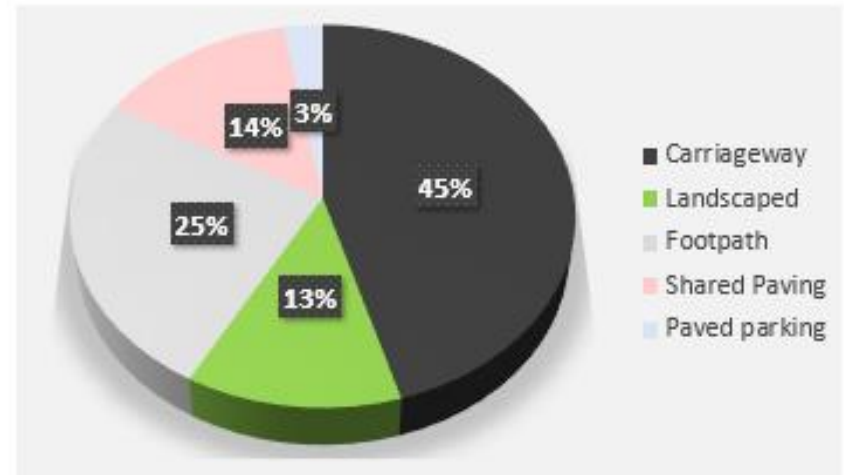
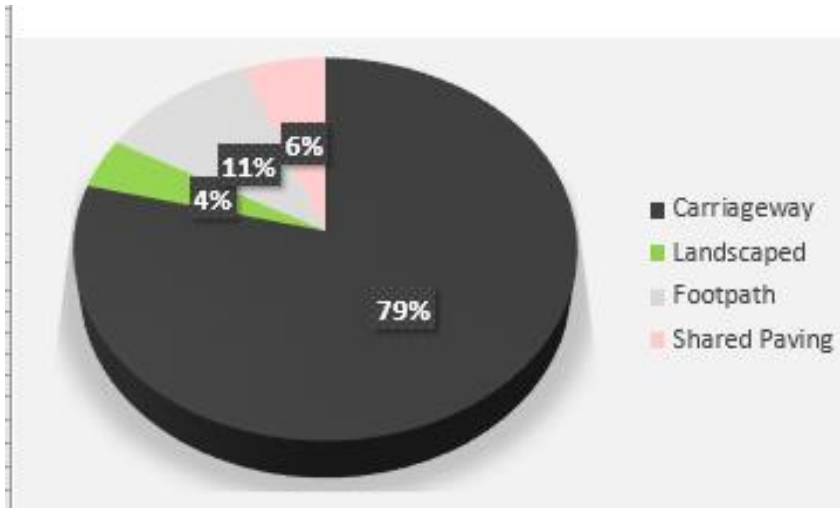
1. Reduce the actual width of Carriageways
2. Reduce the perceived width of Carriageways
3. Changes to Surface Materials
4. Introducing Vertical Elements
5. Identify Gateways and key areas



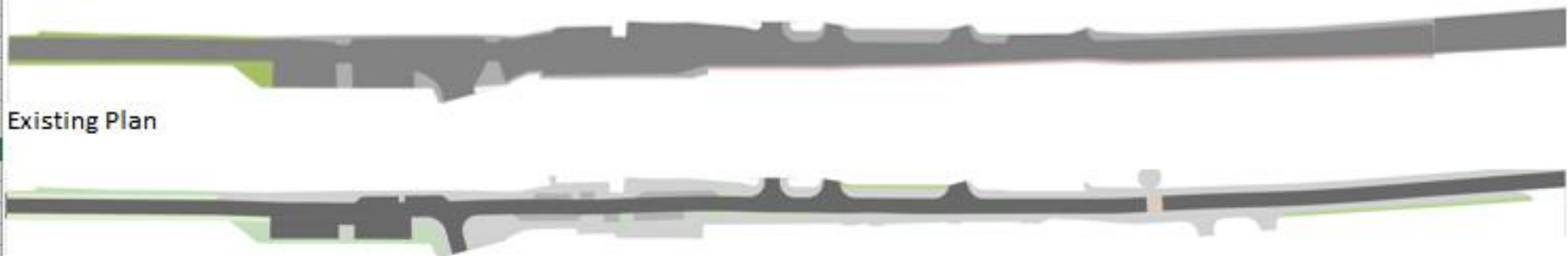
Traffic Calming Measures

‘Generally as part of **traffic calming** there will be a **reallocation** of the public space in our towns and villages.’

1.3.1 Generally, as part of traffic calming, there will **be a reduction in the width of the carriageway** which means a reallocation of the public space in our towns and villages. More space for pedestrians will then enhance connectivity and promote walking. Narrower carriageways generally cost less to build and maintain.



All quantities shown are approximate.



The Treatment of Transition Zones to Towns and Villages on National Roads

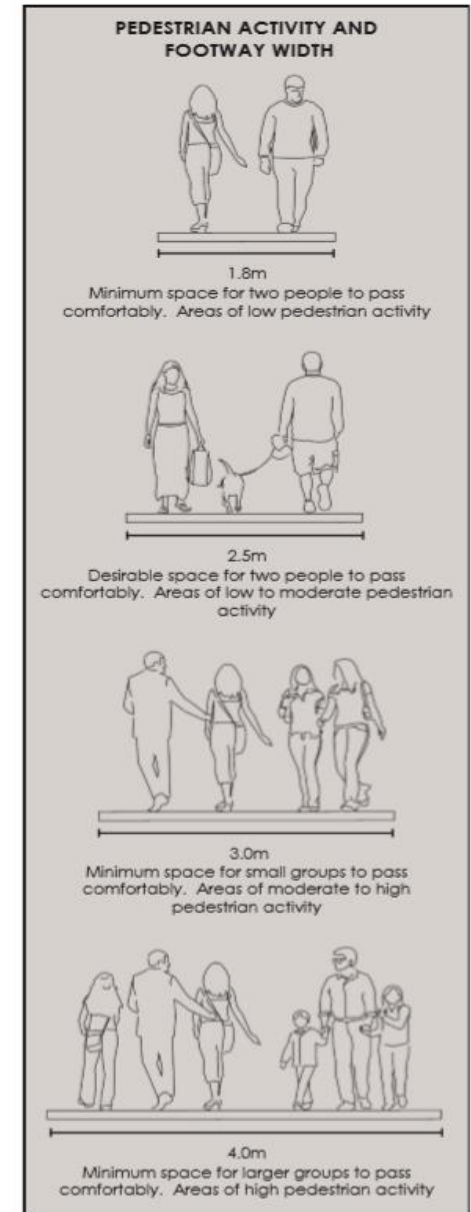
Pedestrian Comfort Assessment

Is there a poor or unsafe pedestrian environment?

Are there minimum footpaths widths 1.8m?

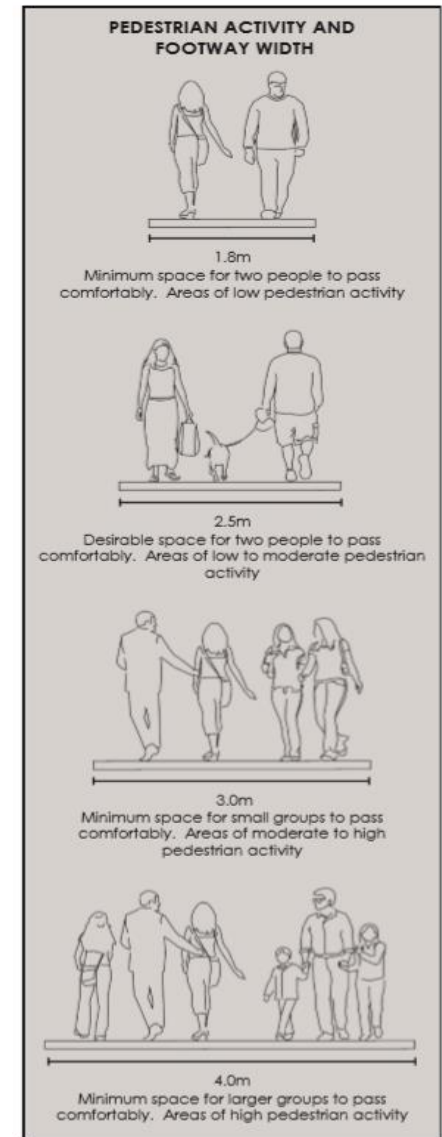
Are the footpaths compliant with minimum DMURS Pedestrian Activity and Footpath Widths for the Local Context?

Reference should be made to the Transport for London Pedestrian Comfort guidance document.



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Pedestrian Comfort Assessment



The Treatment of Transition Zones to Towns and Villages on National Roads

Pedestrian Comfort Assessment

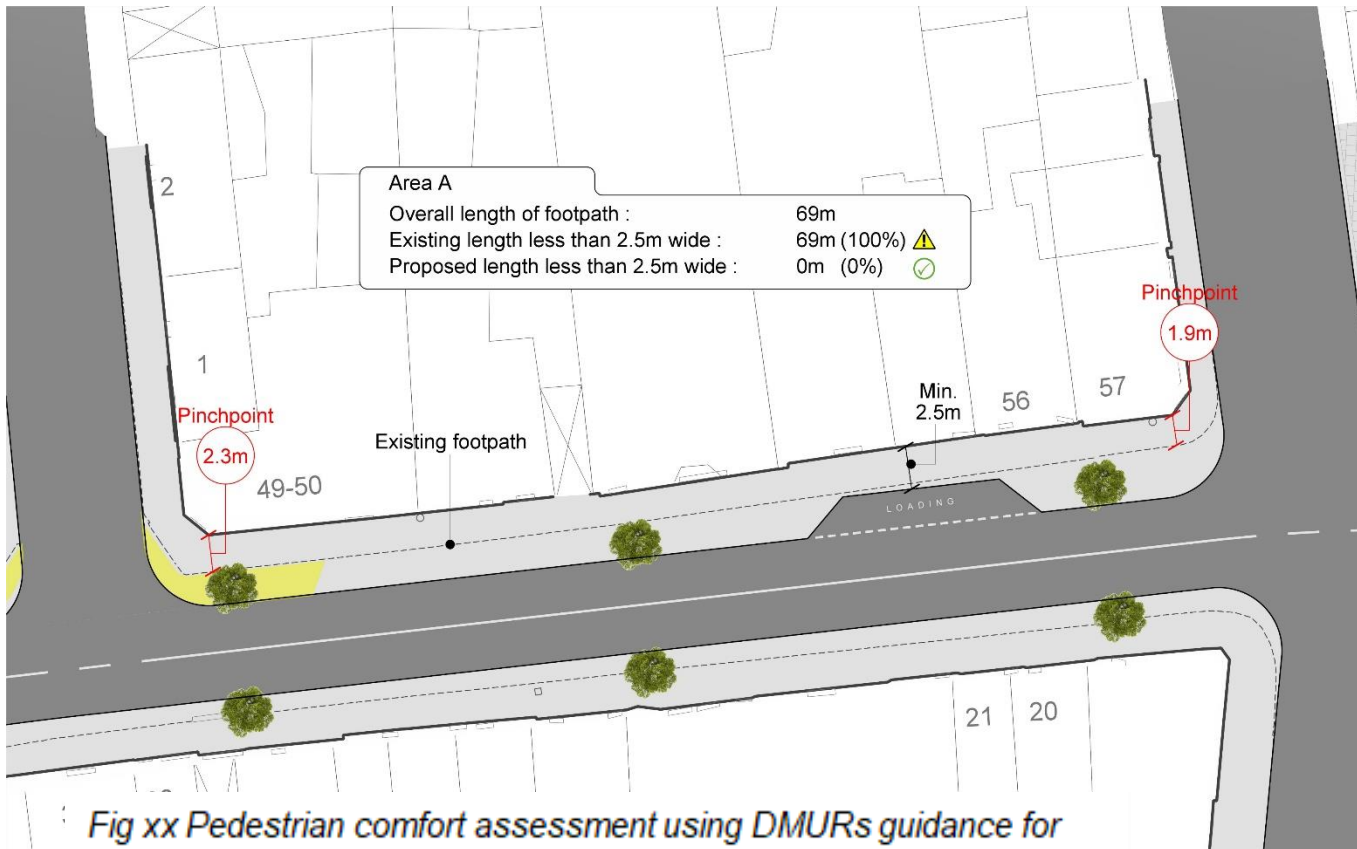
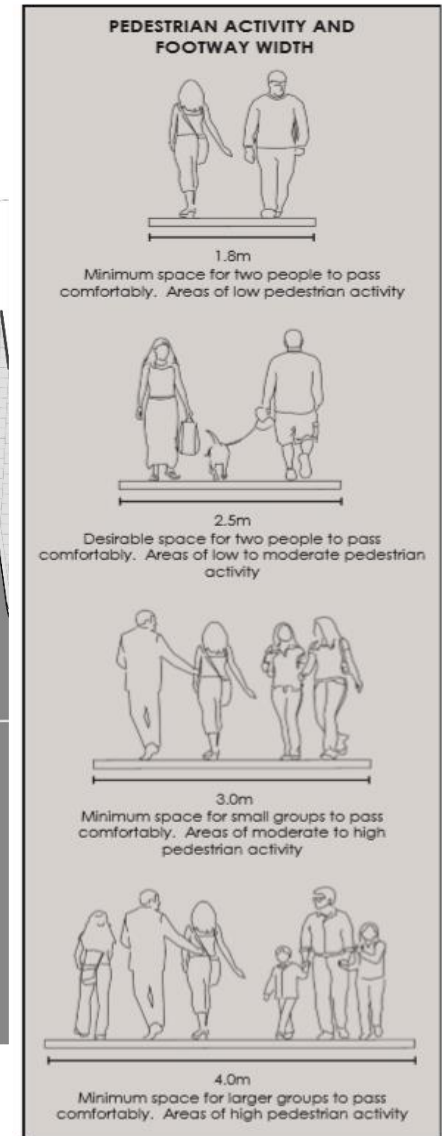


Fig xx Pedestrian comfort assessment using DMURs guidance for pedestrian activity and footpath width. Assessment showed that the existing footpath width provided poor pedestrian provision for current activity levels. Reductions in the carriageway width allowed for expanded footpath widths to cater for these areas of pedestrian activity.

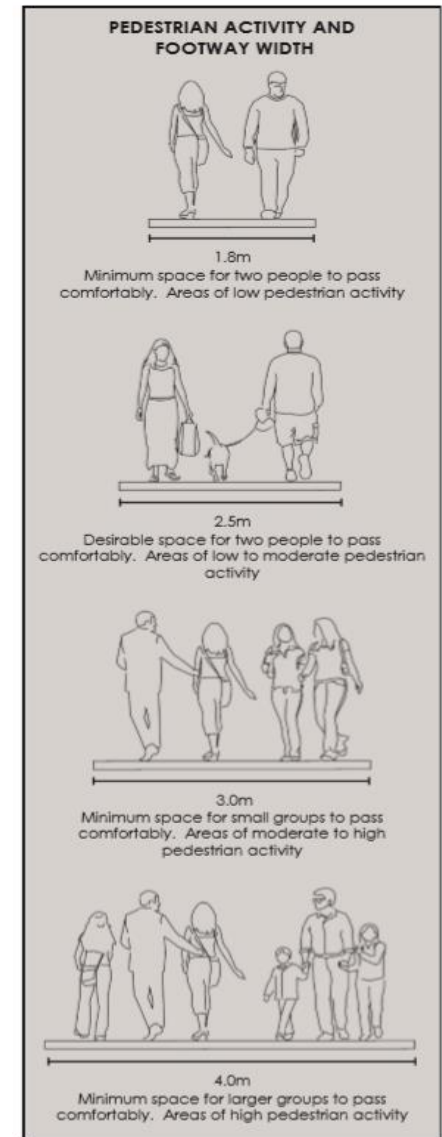


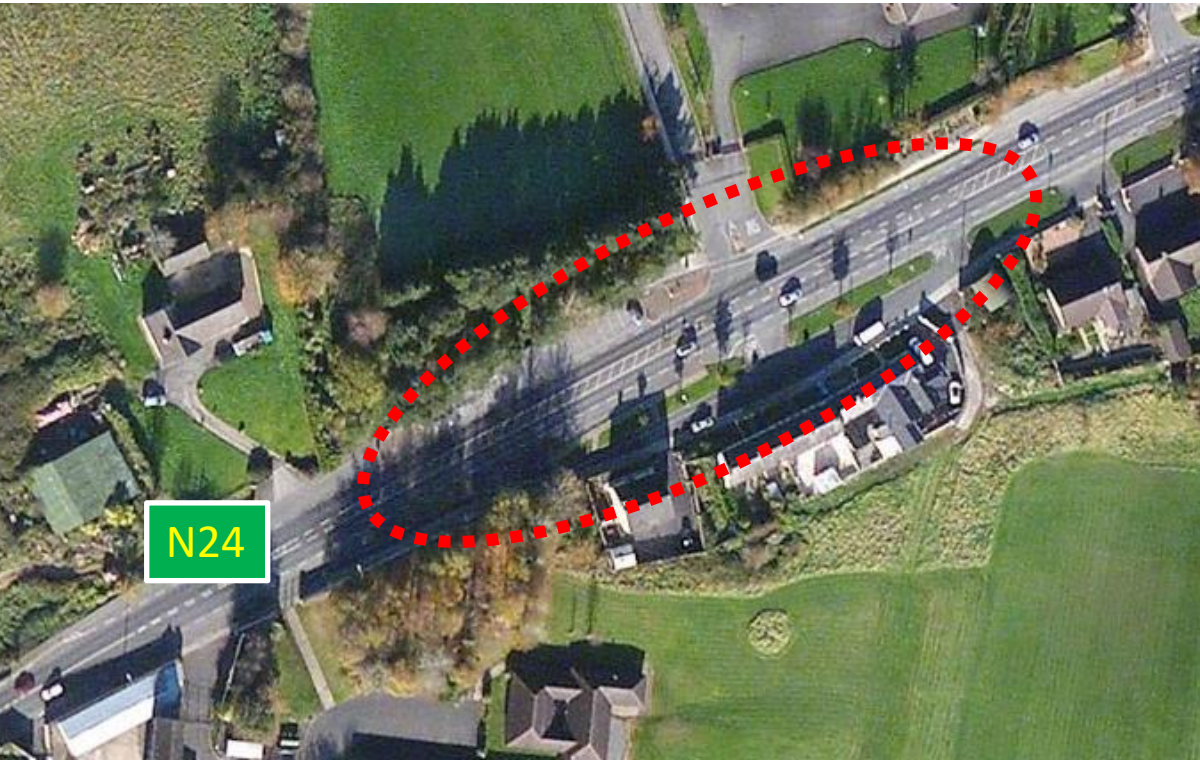
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Pedestrian Provision



Figure 5.1 Footpath widening Killishan, Co. Cork



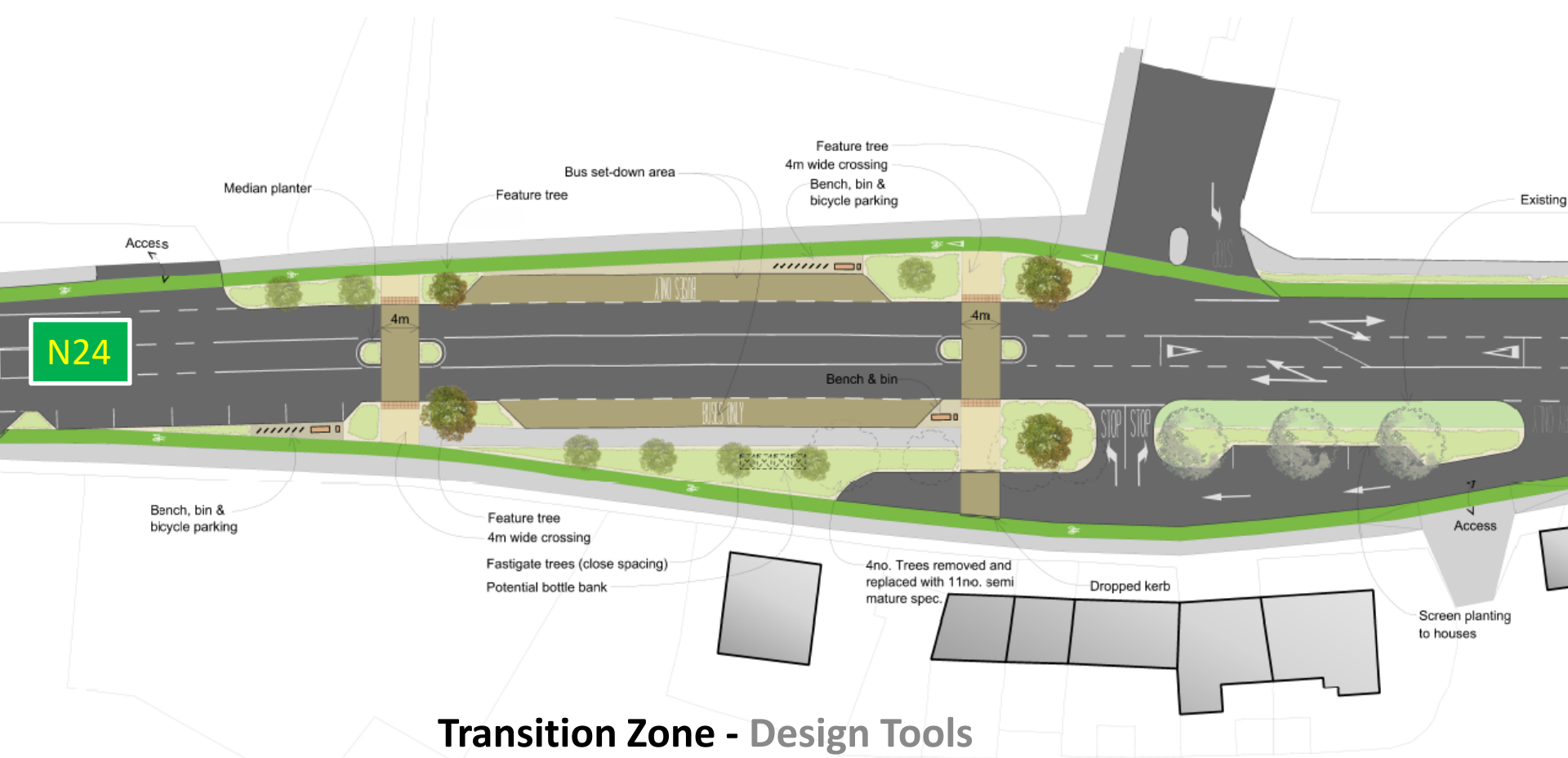


School Zones and Community Facilities

p3 DN-GEO-03084

- usage who/when
- safety
- connections
- cycle/bus function
- meeting place
- local identify





1. Reduce the actual width of Carriageways
2. Reduce the perceived width of Carriageways
3. Changes to Surface Materials
4. Introducing Vertical Elements

What has changed in the document between 2018 and 2021?

2021

3. PREPLANNING, SELECTION and ANALYSIS

- Preplanning
- Traffic and Pedestrian Counts
- Collision Details
- Speed measurements
- **Survey and Analysis**
- **Future Development**
- General principles
- **Design Process**
- Monitoring and evaluation
- **Areas of heritage value**
- **Landscape**

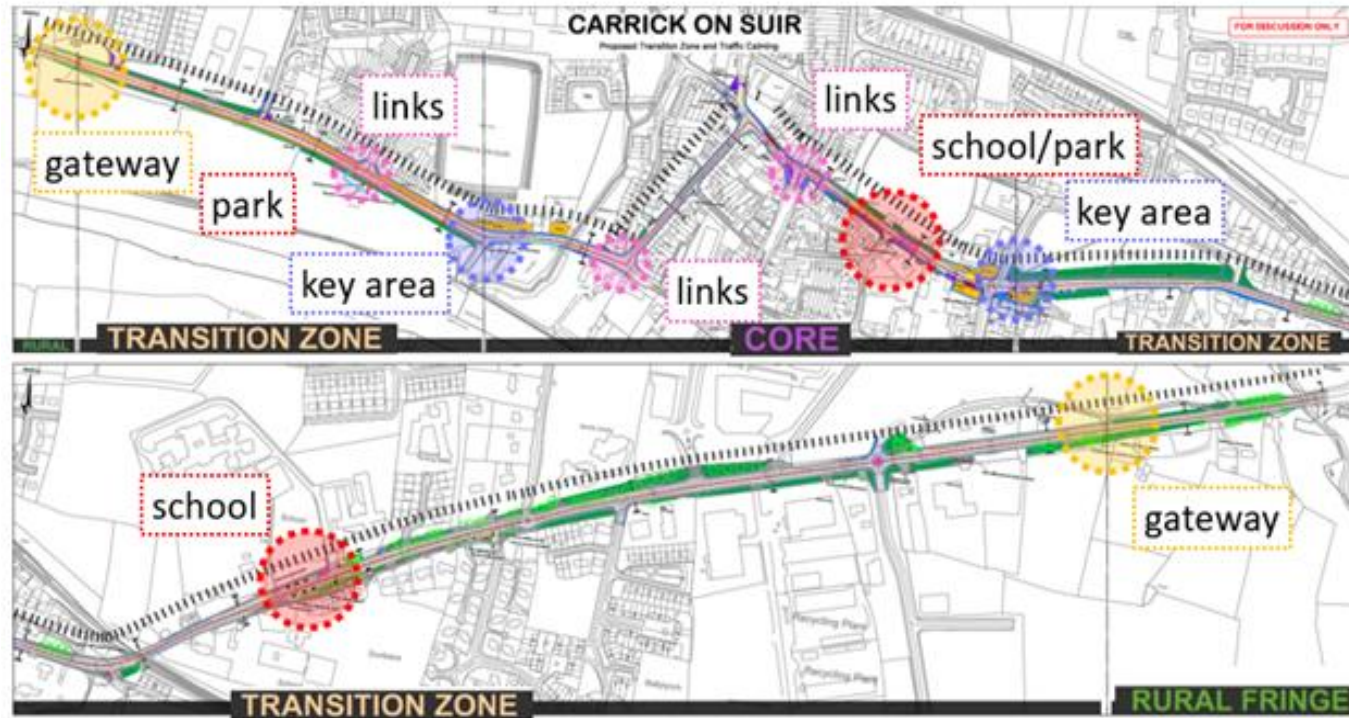
2018

3. PREPLANNING, SELECTION and ANALYSIS

- Preplanning
- Traffic and Pedestrian Counts
- Collision Details
- Speed measurements
- Survey
- Future Infrastructural Development
- General principles
- Monitoring and evaluation
- Areas of historical Importance
- Landscaping

3.6 Survey and Analysis

- When we talk about the phrase 'Context' we mean that National Roads don't exist in isolation
- A detailed survey and analysis will help the designer understand the local context, how people and traffic use the streets and how space on the street is allocated .

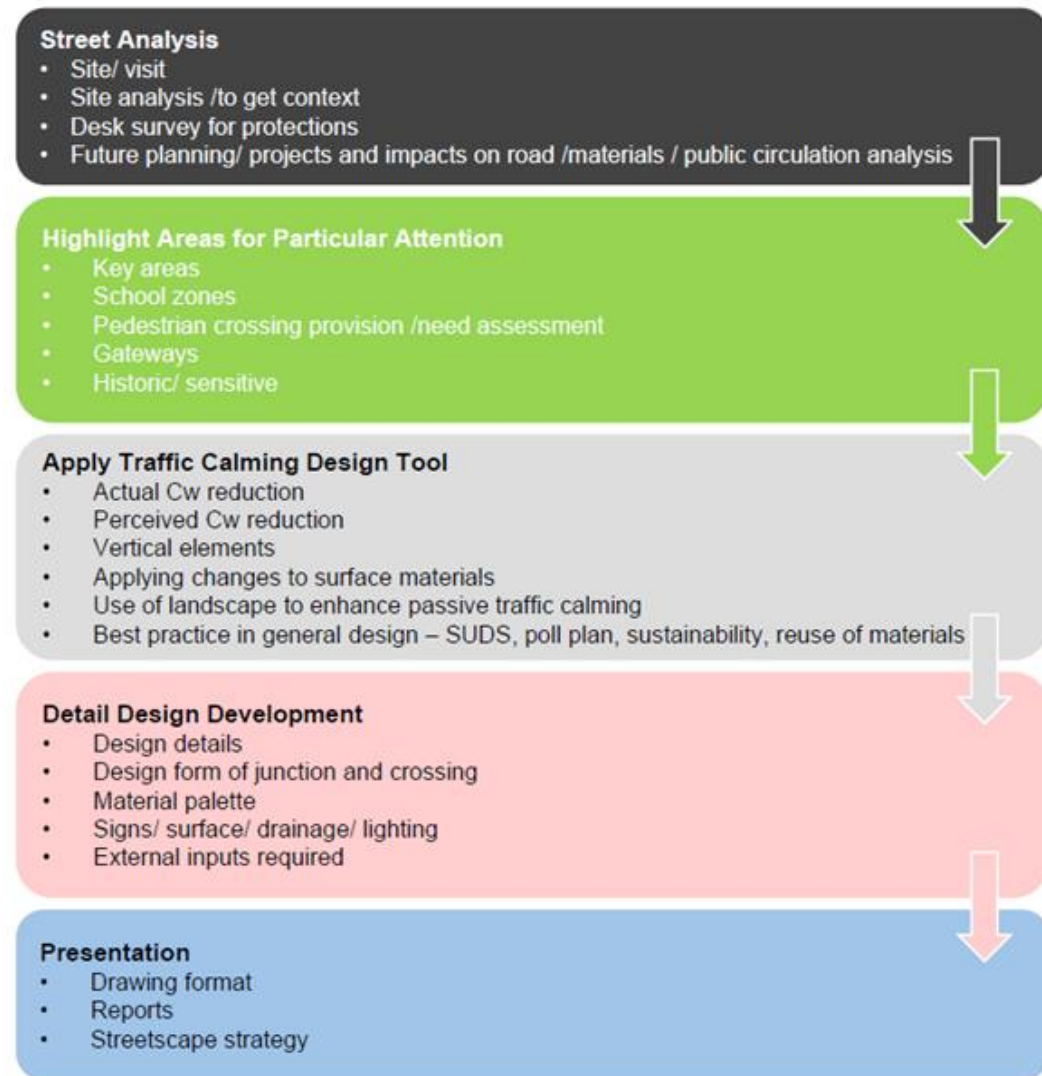


Transition Zone
N24 Carrick on Suir, Co Tipperary

3.9 Design Process

- The standard provides options and approaches but does not provide specific treatments as the final design will be dependent on the local landscape and streetscape character.
- The final design will contain the best design approach given the local context, existing street width, planning context and budget considerations.

Design Process

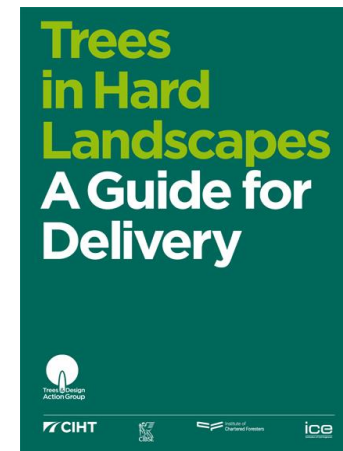
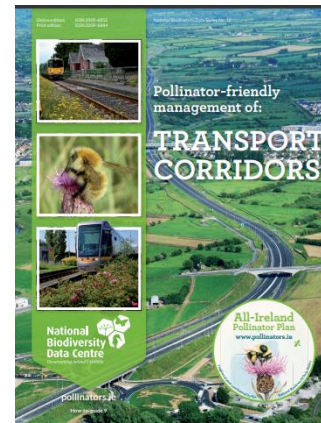


3.12 Landscape

- Landscape design has an important contribution to make in traffic calming, both soft and hard landscape. To date a large proportion of historic traffic calming schemes did not adequately incorporate landscaping into the scheme and in too many instances there was little or no landscaping incorporated. This is one of the biggest failings of previous schemes.
- The final design will contain the best landscape design approach given the local context, existing street width, biodiversity opportunities and budget considerations.
- Reference Street Tree and Transport Corridor Landscape Guidance



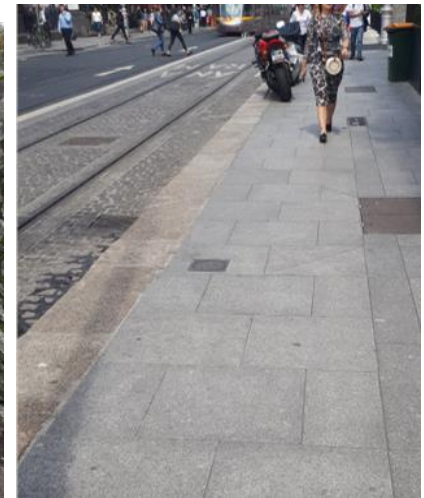
Existing mature trees add to the character of the street and act as landmarks, Birr, N52



Hard Landscape

Additional advice where space reallocation results in footpaths or public realm areas being extended

- Advice on material selection
- Consistency for wayfinding
- Incorporate SUDS
- Street hierarchy
- Future maintenance
- Reuse and circular economy – *TII Sustainability Implementation Plan*



Street Furniture

Reduce street clutter and new street furniture strategy

- Street furniture placement to direct pedestrians to crossings or prevent illegal parking
- Protect edge of street
- Seating to enhance community and address security
- Placement of utility cabinets



Standard Details

What has changed in the drawings between 2018 and 2021?

A series of **typical designs** are presented which cover a range of right of way widths.

However **individual treatments** within the Transition Zone as an alternative to the guidance given in this section are **allowed and encouraged**, with the approval of TII.

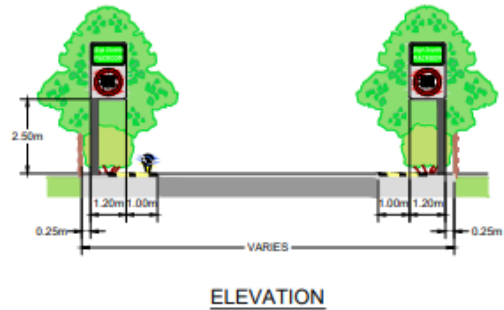
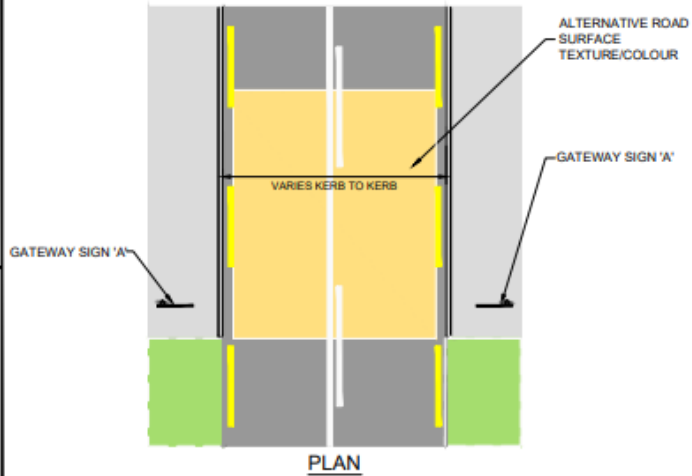
A focus on a design led approach rather than a prescribed standard. Focus on use of locally appropriate finishes and good workmanship for longevity.

NOTES:

1. ALL FIXTURES AT GATEWAY SHOULD CONFORM TO EN 12767.
2. ALL LIGHTING SHALL BE IN ACCORDANCE WITH THE TII LIGHTING STANDARD DN-LHT-03038.
3. SEE CC-SCD-05036 TO CC-SCD-05038 FOR DETAILS OF SIGNS FOR GATEWAY TYPE A.
4. SEE CC-SCD-05041 FOR FURTHER DETAILS OF POSITIONING OF RURAL FRINGE SIGNS.

LEGEND:

-  ROAD
-  FOOTPATHS
-  GRASS VERGE



ACTIVITY



PUBLICATION TITLE

GATEWAY: TYPE A DESIGN

SERIES

STANDARD CONSTRUCTION DETAILS (SCD)

HISTORICAL REFERENCE

Plate Number 8

DOCUMENTATION SET

STANDARDS

PUBLICATION DATE

AUGUST 2018

PUBLICATION NUMBER

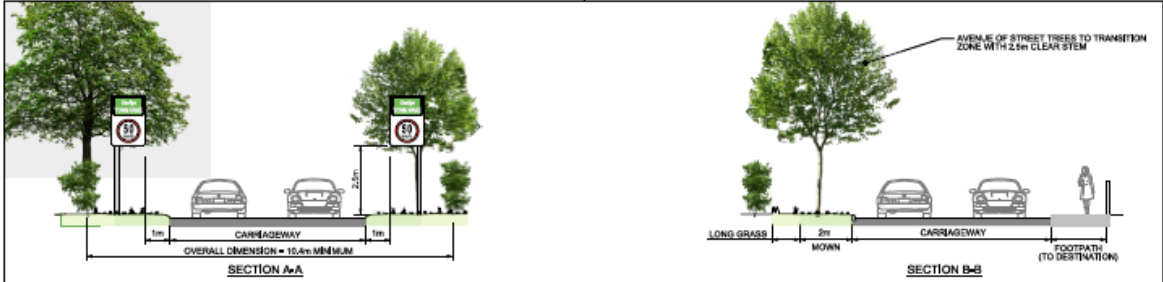
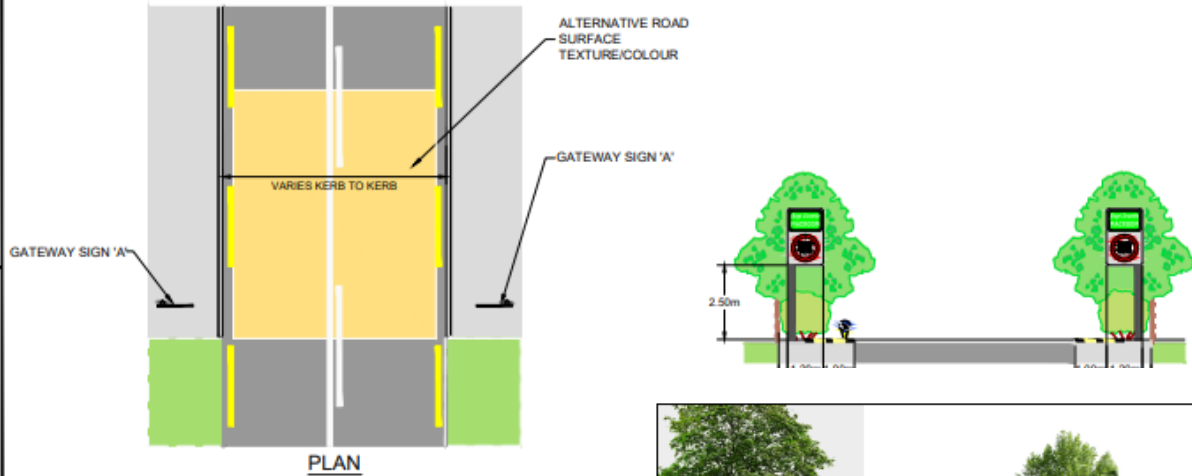
CC SCD 05003

NOTES:

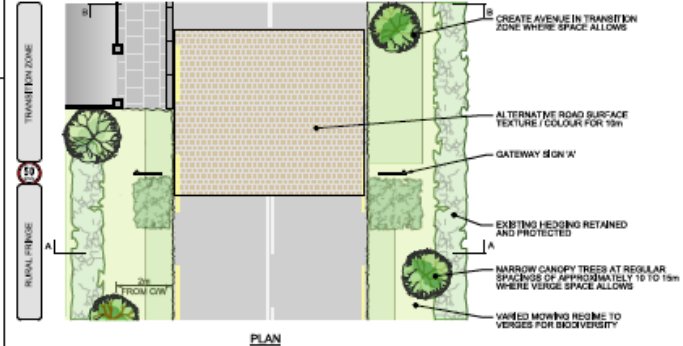
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LEGEND:

-  ROAD
-  FOOTPATHS
-  GRASS VERGE



ACTIVITY	CC Construction & Commissioning	PUBLICATION TITLE	GATEWAY
STANDARD	STANDARD CONSTRUCTION DETAILS (SCD)	HISTORICAL REFERENCE	Plate Number 8



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2. ALL LIGHTING SHALL BE IN ACCORDANCE WITH THE TIL LIGHTING STANDARD DN-LHT-03038.
3. SEE CC-SCD-05036 TO CC-SCD-05038 FOR DETAILS OF SIGNS FOR GATEWAY TYPE A.
4. THIS DESIGN PROVIDES GENERALLY SUITABLE FOR ROADS WITHOUT A HANDSHOULDER.
5. ADVANCED WARNING SIGNAGE IS GENERALLY NOT REQUIRED FOR GATEWAY TYPE A DESIGN, AS THERE ARE GENERALLY NO HANDSHOULDERS PRESENT ON THE IMMEDIATE APPROACH.
6. WHEN SPECIFYING TREES ENSURE CLEAR STEM HEIGHT OF 2.4m SO THEY DO NOT IMPACT ON PEDESTRIAN OR CYCLIST HEAD ROOM.

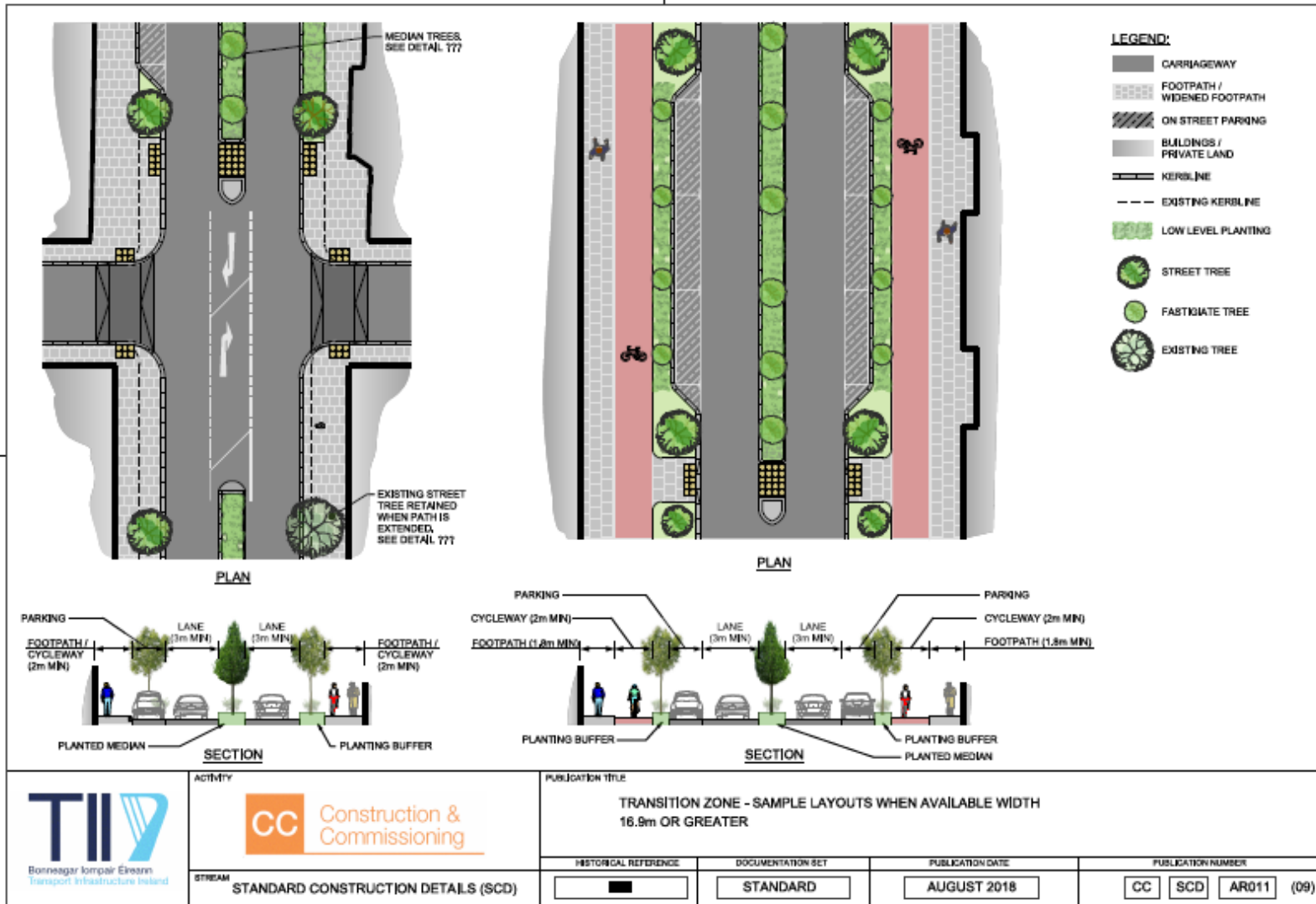
LEGEND:

-  CARRIAGEWAY
-  FOOTPATH
-  BUILDINGS / PRIVATE LAND
-  KERBLINES
-  LOW LEVEL PLANTING
-  VARIED MOWING REGIME TO VERGES FOR BIODIVERSITY
-  EXISTING HEDGING
-  EXISTING / RETAINED TREE
-  STREET TREE



ACTIVITY	CC Construction & Commissioning	PUBLICATION TITLE	GATEWAY TYPE A DESIGN - OVERALL DIMENSION 10.4m MINIMUM		
STANDARD	STANDARD CONSTRUCTION DETAILS (SCD)	HISTORICAL REFERENCE	DOCUMENTATION SET	PUBLICATION DATE	PUBLICATION NUMBER
			STANDARDS	AUGUST 2018	CC SCD AR003 (01)

Standard Details

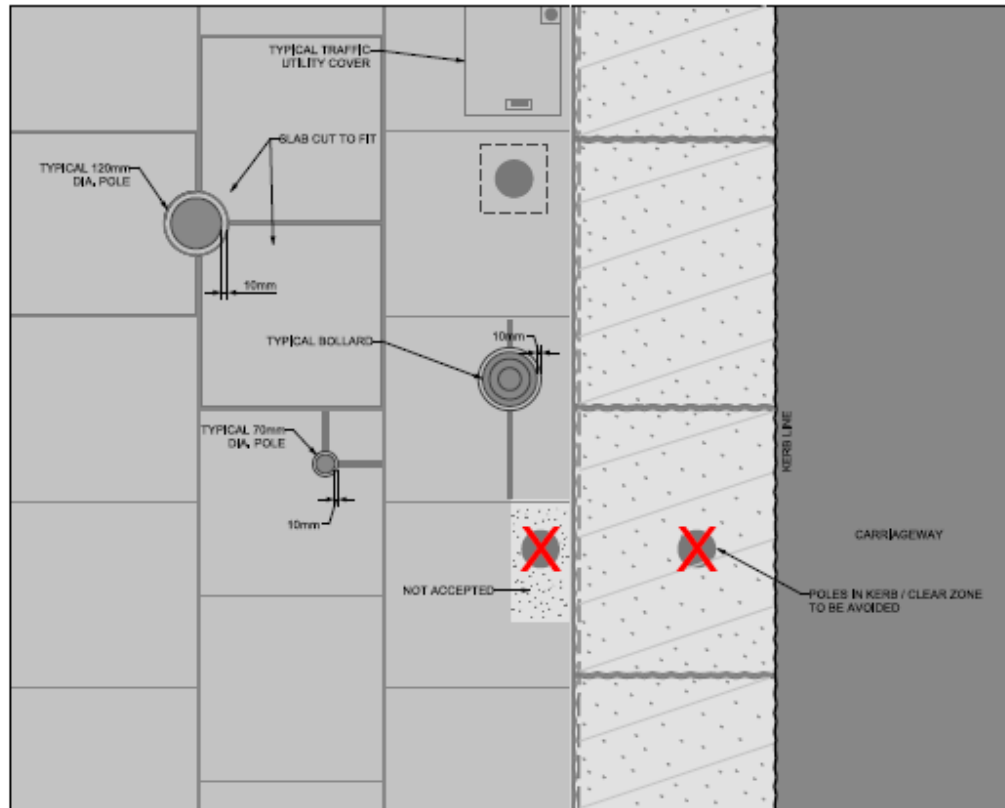




A series of **typical designs** are presented which cover a range of right of way widths.

Standard Details

NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT TII DOCUMENTATION.
2. DO NOT SCALE OFF THIS DRAWING.
3. NO POLES IN KERB ZONE.
4. ALL POLES TO BE CORED TO FIT IN PAVING LAYOUT, EXCESS FILL OR ANGULAR CUTS TO BE AVOIDED.
5. COMBINE SIGNS ON POLES TO REDUCE VISUAL CLUTTER.
6. WAKE RACKS OR BINS REQUIRED AS PART OF THE STREETSCAPE, MAYBE PLACED TO PROVIDE AN ALTERNATE METHOD TO BOLLARDS FOR TRAFFIC CONTROL.



 TII Transport Infrastructure Ireland	 Construction & Commissioning	PUBLICATION TITLE POLE PLACEMENT AND PAVEMENT CUTTING DETAILS IN PAVED FOOTPATH			
		STREAM STANDARD CONSTRUCTION DETAIL (SCD)	HISTORICAL REFERENCE N/A	DOCUMENTATION SET STANDARD	PUBLICATION DATE JULY 2018

Focus on use of **locally appropriate** finishes and good workmanship for **longevity**.

THANK YOU

Eimear Fox

Landscape Architect



eimear.fox@tii.ie