

TII Publications System Information Session

9 March 2016, Engineers Ireland

Introduction to the TII Publications Launch

Michael Nolan, Chief Executive Officer at TII

TII Publications

- TII Publications is being launched today!
- TII Publications is now available for **information only**, during a transition period;
- On **1 June 2016** TII Publications will become **effective**;
- From that date, TII Publications will be the source for all current and new Standards and Specification documentation relating to the design, construction and maintenance of National Roads schemes in Ireland;
- The system also contains other TII technical documentation, relating to TII services.

Topics and Speakers

- Introduction (Michael Nolan, TII)
- Background to the New System (Helen Hughes, TII)
- Implementation of TII Publications (Gavin O'Donnell, Arup)
- Live Demonstration (Gavin O'Donnell, Arup)
- Implications for Users (Gavin O'Donnell, Arup)
- Closing Remarks (Helen Hughes, TII)
- Questions and Answers (Panel of Presenters)

Transport Infrastructure Ireland

Transport Infrastructure Ireland (TII) was established through a merger of the National Roads Authority and the Railway Procurement Agency under the Roads Act 2015, with effect from 01/08/15.

TII's primary function is to provide an integrated approach to the future development and operation of the national roads network and light rail infrastructure throughout Ireland.

The logo for eColl, featuring the text 'eColl' in a stylized font where the 'e' and 'C' are connected.The logo for LUAS, consisting of the word 'LUAS' in a bold, blue, sans-serif font.The logo for LUASCROSSCITY, featuring a stylized graphic of a road or path in shades of green and blue, with the text 'LUASCROSSCITY' and the tagline 'bringing the city together' below it.The logo for Transport Infrastructure Ireland (TII), featuring the letters 'TII' in a large, blue, sans-serif font, with a stylized harp icon to the right. Below the logo is the text 'Bonneagar Iompair Éireann' and 'Transport Infrastructure Ireland'.

TII Mission and Vision

MISSION

To provide high quality transport infrastructure and services, delivering a better quality of life and supporting economic growth.

VISION

Our Vision is:

- To be leaders in the delivery and operation of transport infrastructure.
- To ensure that Ireland's national road and light rail infrastructure is safe, sustainable and resilient, delivering better accessibility and mobility for people and goods.
- To be recognised as an organisation that values its people, customers and partners.



TII Mission and Vision

TII will continue to focus on the maintenance, operation and delivery of infrastructure improvements throughout the national road network and the Luas light rail network in partnership with the Government, Local Authorities, National Transport Authority and the private investment community.

TII has responsibility for the maintenance and operations of the country's national road network, inclusive of motorway and national secondary roads, totalling over five thousand kilometres. These two main areas of responsibility make TII one of the country's leading infrastructure development and management organisations.





TII Standards

Aim

“... to promote quality and consistency of approach in relation to the design and construction of road and bridge projects;

... to achieve an appropriate balance of economy, safety, sustainability and durability on road schemes”



Drivers for change

- Developments in International standards
- Feedback from National Roads Projects
- Conclusions of research projects
- Representation from Industry
- Developments with NRA policies
- Compliance with the EU Directives (eg CPR 2011)



Background to the TII Publications System

Helen Hughes, Director of Professional Services at TII

Legislative Remit to Specify Standards

- TII has a range of specific functions under The Roads Act 1993 to 2015
- Particularly in respect of standards, clause 19 includes the following;

“(1) The Authority may, in relation to national roads or proposed national roads, do all or any of the following:

.....

(e) subject to section 15B(3), specify standards in relation to design, construction or maintenance works to be complied with by a person, road authority or public authority carrying out such works;”

A brief history of Road Standards in Ireland

Pre-2000 | An Foras Forbartha and later NRA

- Design Guidelines (Geometric RT series, other UK references)

2000 | National Roads Authority

- Launch of NRA DMRB/NRA MCDRW based on UK System

2000 to 2015 | National Roads Authority

- Development and Expansion with increasing international influence

2016 | Transport Infrastructure Ireland

- Launch of TII Publications (a new structure and system)

Background to TII Publications

TII wanted a new structure to;

- promote the new TII brand
- have fully stand-alone TII documentation
- better integrate Standards with workflows
- consideration of wider NRA and RPA technical documentation
- maintain a coherent and logical structure

Other Country's systems reviewed initially;

- Sweden, The Netherlands, Denmark, Australia, Canada, USA and the UK
- Wide variability in approach

Background to TII Publications

Objectives of the new system

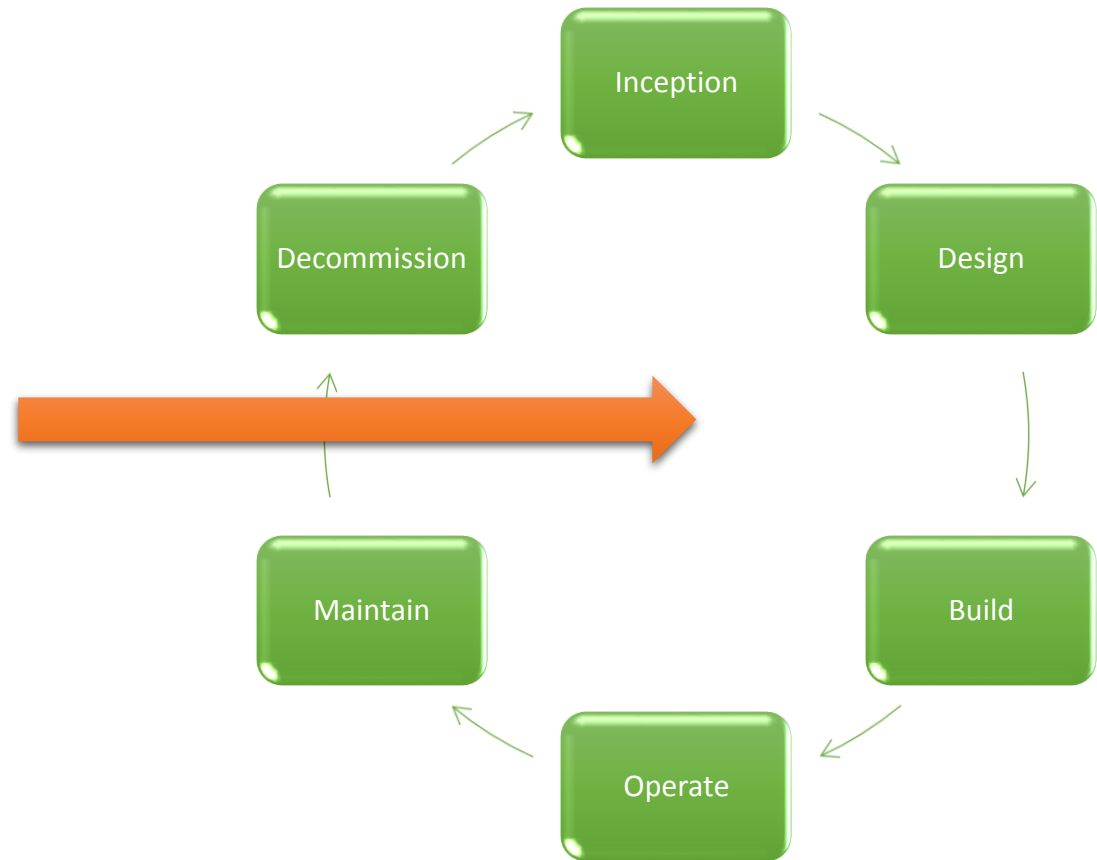
- Simple, over-arching structure;
- Modular-based;
- Flexible sub-structure;
- Increased web-based functionality; and
- Electronic document management system.

Background to TII Publications

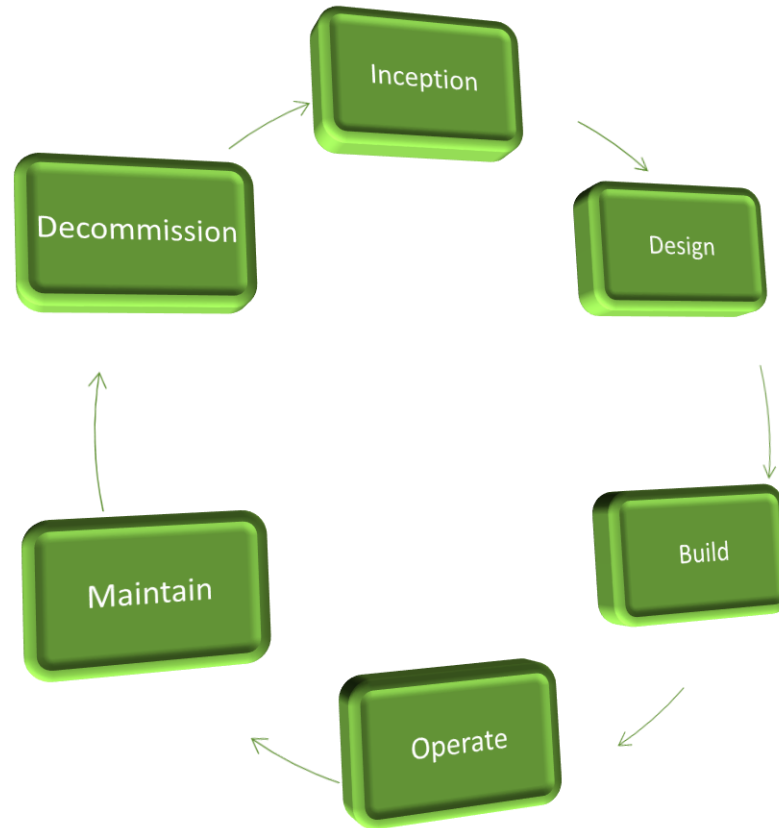
Discipline Based Manuals



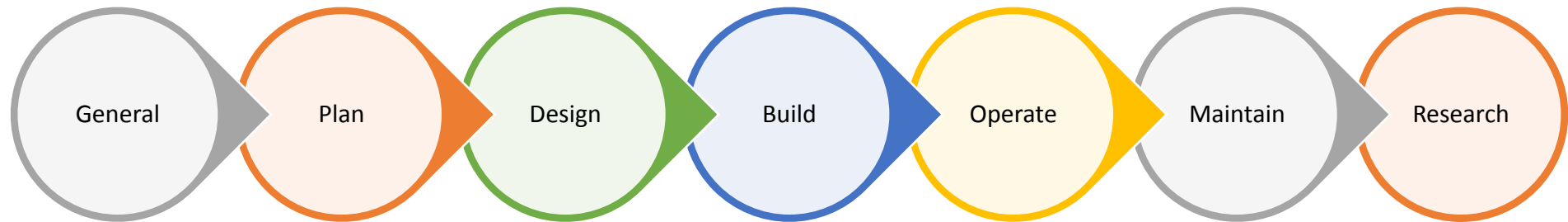
Project Lifecycle



Life-cycle Activities



Life-cycle Activities



7 'Pillar' Activities

General (GE)

Planning and Evaluation (PE)

Design (DN)

Construction and Commissioning (CC)

Operations (OP)

Asset Management and Maintenance (AM)

Research (RE)

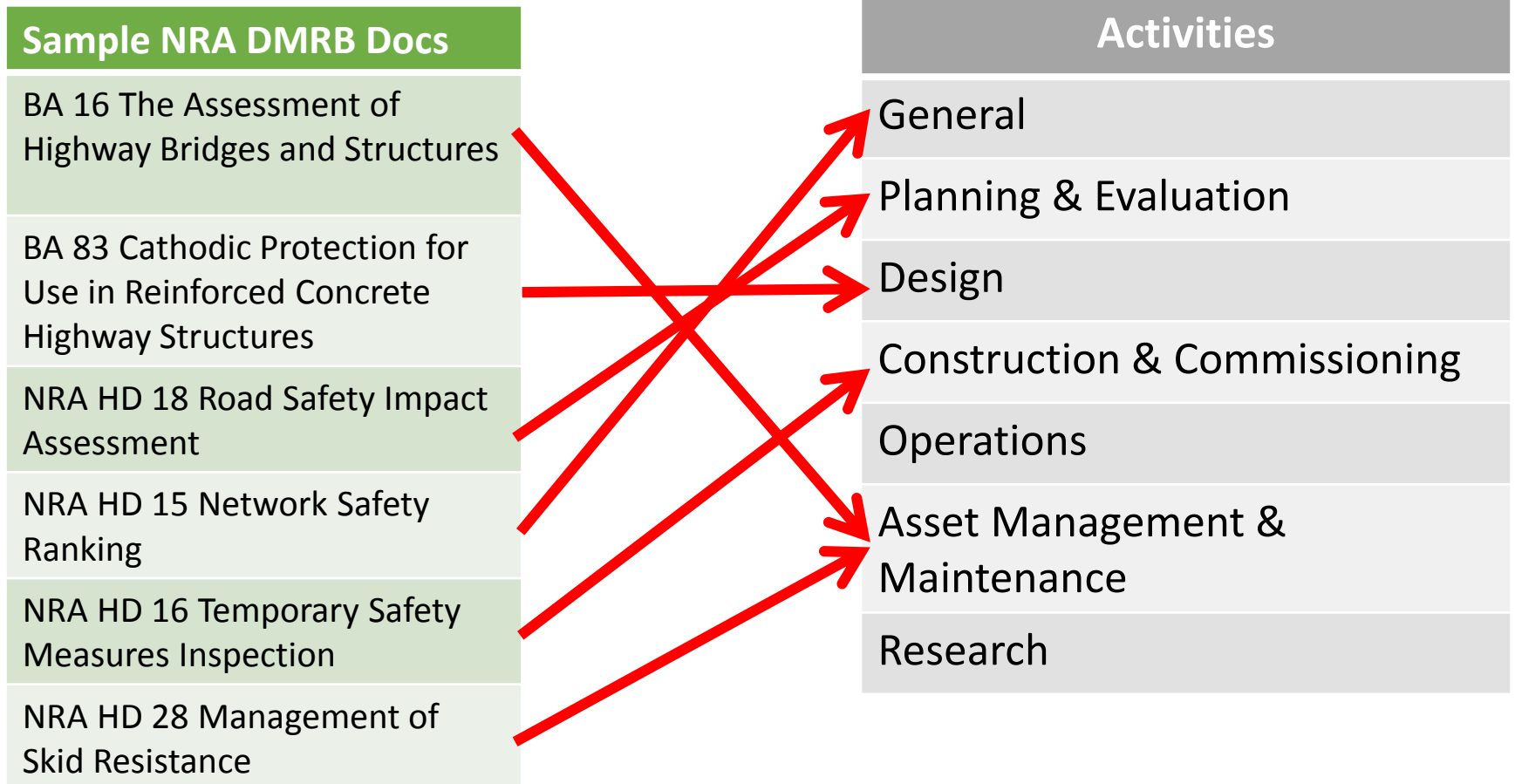
Discipline 'Streams'

Design (DN)

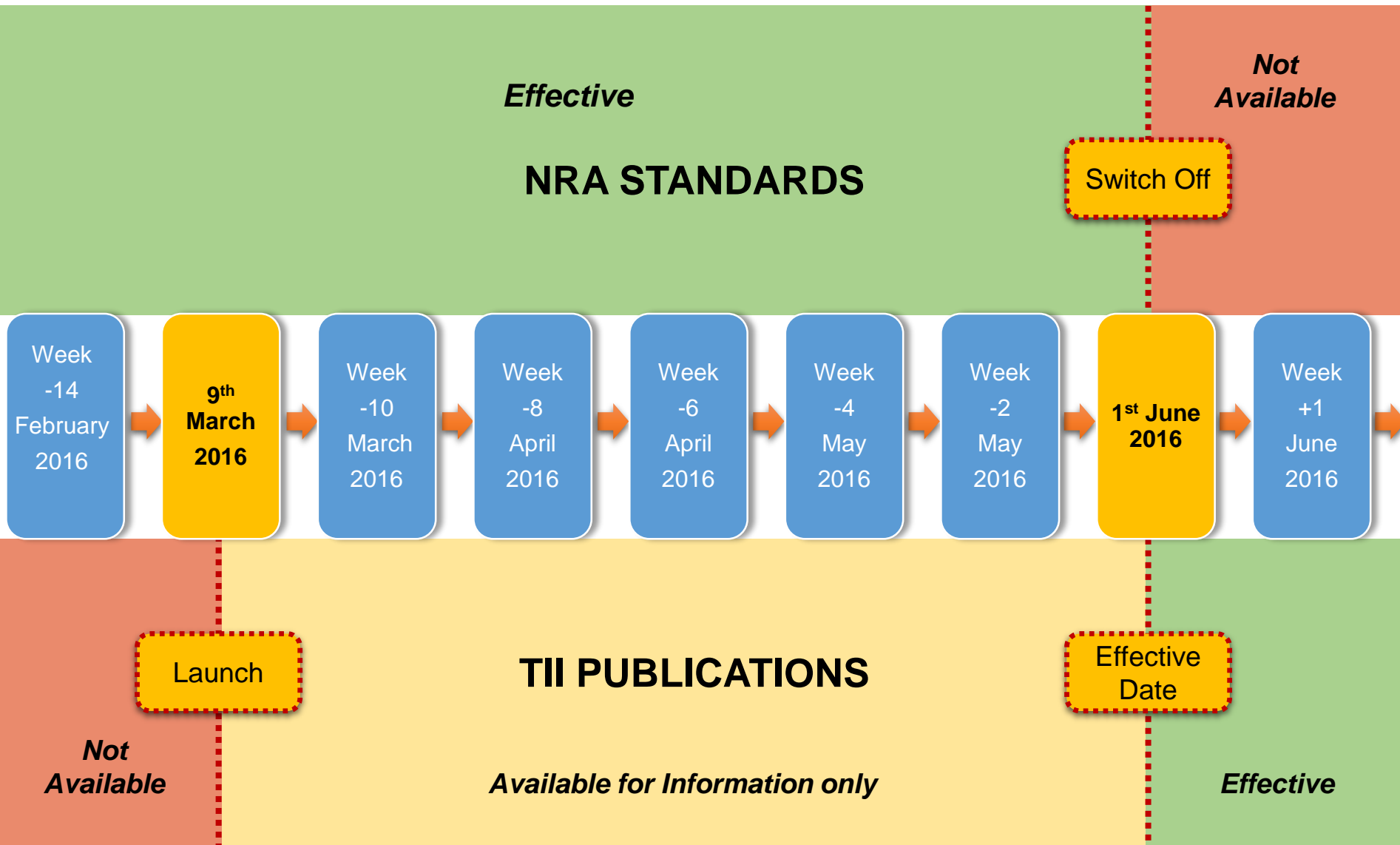


- | | | |
|--|--|---|
| <input type="checkbox"/> Archaeology (ARC) | <input type="checkbox"/> Lighting (LHT) | <input type="checkbox"/> Track Alignment and Clearances (TAC) |
| <input type="checkbox"/> Buildings (BLD) | <input type="checkbox"/> Other Documents (OTH) | <input type="checkbox"/> Traffic (TRA) |
| <input type="checkbox"/> Drainage (DNG) | <input type="checkbox"/> Pavement (PAV) | <input type="checkbox"/> Trackworks (TWK) |
| <input type="checkbox"/> Design Management (DNM) | <input type="checkbox"/> Road Equipment (REQ) | <input type="checkbox"/> Tunnels (TUN) |
| <input type="checkbox"/> Environment (ENV) | <input type="checkbox"/> Rail Systems (RSY) | <input type="checkbox"/> Urban Architecture and Landscaping (UAL) |
| <input type="checkbox"/> Earthworks (ERW) | <input type="checkbox"/> Rolling Stock (RSS) | <input type="checkbox"/> Urban / Rural Interface (URI) |
| <input type="checkbox"/> Geometry (GEO) | <input type="checkbox"/> Structures (STR) | <input type="checkbox"/> Utilities (UTL) |
| <input type="checkbox"/> Intelligent Transport Systems (ITS) | <input type="checkbox"/> Safety (STY) | |

Document Mapping



Transition to TII Publications



Implementation of TII Publications

Gavin O'Donnell, Associate Director at Arup

Introduction



Volume 4 Section 2
Part 1
NRA HD 45/15

**Road Drainage and the Water Environment
(including Amendment No. 1)**

March 2015 (including Amendment No. 1, dated June 2015)

St. Martin's House, Waterloo Road, Dublin 4 Tel: +353 1 660 2511 Fax +353 1 668 0009
Email: info@nrab@nra.ie Web: www.nra.ie

Introduction

Volume 1
Specifications for Road Works

Series 1500
Traffic Control and Communications

TRAFFIC CONTROL AND COMMUNICATIONS

Contents

<i>Clause</i>	<i>Title</i>	<i>Page</i>
1501	Introduction	1
1502	General Requirements	1
1503	Materials Equipment and Workmanship	1
1504	Site Records	2
1505	Cabinets and Ancillary Items	3
1506	Cables	3
1507	Cable Laying	4
1508	Installation of Cabinets and Signal Posts	7
1509	Gantries for Motorway Signals	7
1510	Installation of Emergency Telephones	8
1511	Cable Joints	8
1512	Installation of Ancillary Items	8
1513	Termination of Armoured Multi-pair Communication Cables	9
1514	Cable Connectors	9
1515	Termination of Fibre Optic Communication Cables	9
1516	Termination and Joining of Power Supply Cables for Communications	10
1517	Earthing and Bonding	11
1518	Cable Testing	11
1519	Labeling and Numbering	12
1520	Loading	13
1521	Removal and Resiting of Existing Equipment	13
1523	Loop Detectors	14
1524	Trial Pits	21
1525	Maintaining the Existing Motorway Communications Network	21
1526	The Inspection and Testing of Electrical Installations	21
1527	Cable Installation at Buildings	22
1528	Modifications to Existing Cabinets	22
1529	Temporary Emergency Telephones	22
1530	Cable Ducts	23
1531	Installation of Ducts	24
1532	Chambers for Motorway Communications Cables	26
1533	Proving and Testing of Ducts	27
1534	Closed Circuit Television	28
1535	Cable Trays	28
1536	Poles for Lightweight ITS Equipment	28

June 2013

Introduction



NRA Standards Section – Technical Bulletin
NRA TB 13 Revised Road Drainage Standards
March 2015

NRA TB 13 (March 2015)

REVISED ROAD DRAINAGE STANDARDS

In March, 2015, the NRA significantly revised its drainage standards for major road projects. This revision was precipitated by research carried out under the NRA Research Fellowship Programme and mentored by the NRA Environment Unit. The research looked at the impacts of national road drainage systems on both surface and ground water and concluded that the NRA drainage standards needed to be expanded to promote the use of sustainable drainage systems and to maximise environmental benefits. A report entitled *Drainage Design for National Road Schemes – Sustainable Drainage Options* documents this research and provides useful background reading to the NRA drainage standards. This document is available at: <http://nrastandards.nra.ie/latest/other-nra-documents>.

As a result of this research and a follow-on comprehensive review of its road drainage standards, the NRA has created a new standard NRA HD 33/15 entitled *Drainage Systems for National Roads* along with a further thirteen new documents that have been incorporated into the NRA DMRB. A significant amendment has also been made to the NRA MCDRW Series 500 including the creation of a large number of new and revised RCDs.

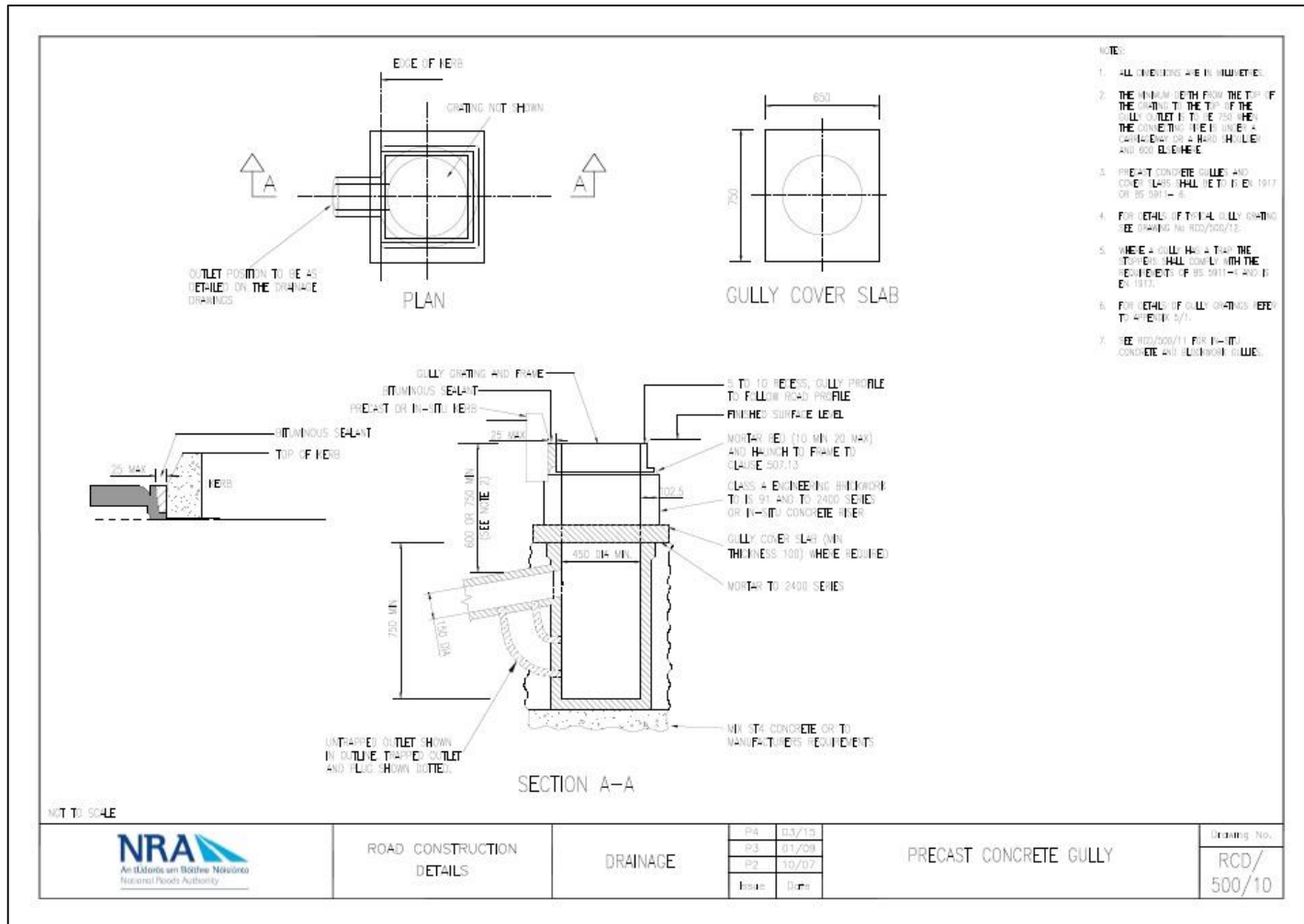
In order to further assist interested persons, a more detailed (*non-exhaustive* and *non-definitive*) outline of notable aspects of changes to the NRA DMRB and the NRA MCDRW is contained in the annexes to this document.

Pat Maher
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National Roads Authority

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Introduction



Introduction



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▶ NRA DMRB Documents

▶ NRA MCDRW Documents

▶ Interim Advice Notes

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▶ Technical Bulletins

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You Are Here : > Home

NRA Standards

NRA Design and Contract Document Manuals

Welcome to the National Roads Authority Standards website.

Follow the links on the left hand side to access the various parts of the website.

The NRA Design and Contract Document Manuals contain information relating to the design, construction and maintenance of national roads schemes in Ireland and can also be accessed below:

[The NRA Design Manual for Roads and Bridges \(NRA DMRB\)](#)

[The NRA Manual of Contract Documents for Roadworks \(NRA MCDRW\)](#)

[NRA Interim Advice Notes](#)

Introduction



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Welcome to TII Publications

TII's online suite of standards and Technical publications related to national road and light rail networks in Ireland

Please enter document reference or title

SEARCH

Not sure? Try our [advanced search](#)

Outline of TII Publications

TII maintains this online suite of technical publications, referred to as TII Publications. The Contents of TII publications is clearly split into 'Standards' and 'Technical' documentation.

All documentation for implementation on TII schemes is collectively referred to as TII Publications (Standards), and all other documentation within the system is collectively referred to as TII Publications (Technical). All documentation is available for free download. More information on the [TII Publications system](#).

> [View Recent Changes](#)

Lists of new and updated TII Publications documentation published recently

> [Forward Look](#)

The current list of anticipated publications and an estimated publication date

> [Departure to Standards](#)

Dedicated website for application or management of Departures to TII Publications

> [TII Document Library](#)

Library of non-technical TII documentation on the main TII website

Outline of TII Publications

- TII Publications is simply a **restructuring** of existing documentation
- All **existing documentation** contained on the NRA Standards website has been processed into the new system
- The **technical contents** of the NRA Standards and other documentation has not changed

Outline of TII Publications

TII Publications (**Standards**)

- NRA Standards (NRA BDs, GDs, HDs, TDs, etc..)
- NRA Advice Notes (NRA BAs, HAs, TAs, etc...)
- NRA Specification for Roadworks
- Notes for Guidance to the NRA Specification for Roadworks
- NRA Method of Measurement for Roadworks
- Notes for Guidance to the NRA Method of Measurement for Roadworks
- NRA Road Construction Details
- *Future Developments?*

Outline of TII Publications

TII Publications (**Technical**)

- NRA Interim Advice Notes
- NRA Technical Bulletins
- Research Papers
- Technical Reports
- *Future Developments?*

Elements of TII Publications

- New Covers



TII Publications



**Departures from Standards
and Specification
(including Erratum No. 1,
dated June 2013)**

GE-GEN-01005
March 2013

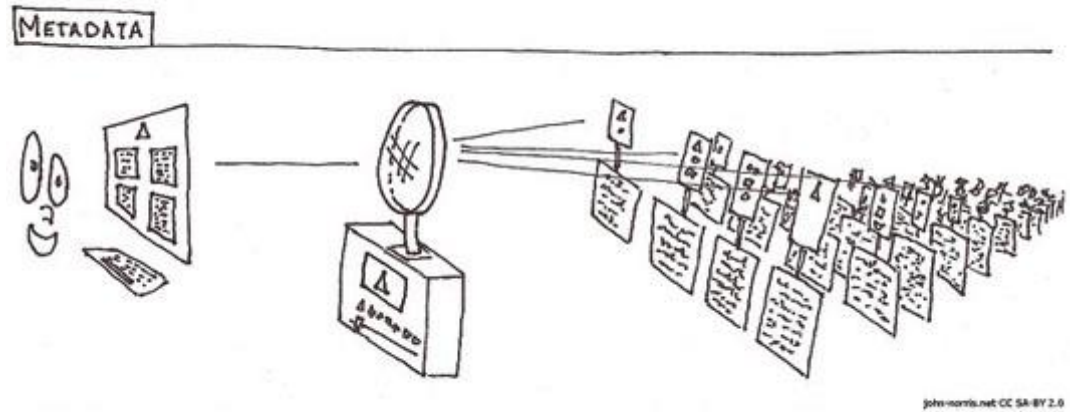


Standards



Elements of TII Publications

- New Covers
- Expanded Metadata



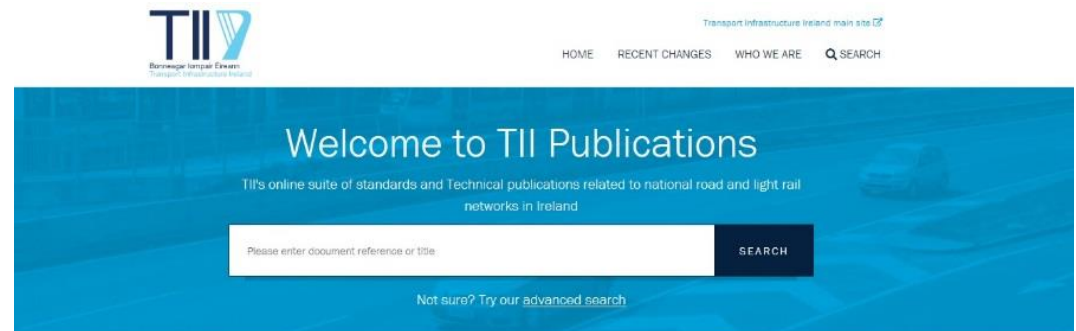
Elements of TII Publications

- New Covers
- Expanded Metadata
- New Database

Type	Name	Activity/Full	Stream/Full	Document Number	Document Set Full	TII Publication Title	Version Type Full	Activity	Stream	Document Set	Version Type	Publication Date	Historical B
AM-PAV-06045-01	Asset Management & Maintenance (AM)	Pavement (PAV)		06045	Standards	Management of Skid Resistance	Published	AM	PAV	S	P	01/11/2011	NRA HD 28
AM-PAV-06047-01	Asset Management & Maintenance (AM)	Pavement (PAV)		06047	Technical	Interim Guidelines for Pavement and Maintenance Works	Published	AM	PAV	T	P	01/01/2007	
AM-PAV-06049-01	Asset Management & Maintenance (AM)	Pavement (PAV)		06049	Standards	Pavement Asset Repair and Renewal - Scheme Approval Procedure	Published	AM	PAV	S	P	01/03/2015	NRA HD 30
AM-PAV-06050-01	Asset Management & Maintenance (AM)	Pavement (PAV)		06050	Standards	Pavement Assessment, Repair and Renewal Principles	Published	AM	PAV	S	P	01/03/2015	NRA HD 31
AM-STR-06001-01	Asset Management & Maintenance (AM)	Structures (STR)		06001	Standards	Implementation of BS 5400 Part 10: 1980 - Code of Practice for Fatigue	Withdrawn	AM	STR	S	W	01/08/2010	NRA BA 9
AM-STR-06001-02	Asset Management & Maintenance (AM)	Structures (STR)		06001	Standards	The Use of BS 5400: Part 10: 1980 - Code of Practice for Fatigue	Published	AM	STR	S	P	01/06/2014	NRA BA 9
AM-STR-06002-01	Asset Management & Maintenance (AM)	Structures (STR)		06002	Standards	The Assessment of Highway Bridges and Structures	Withdrawn	AM	STR	S	W	01/08/2010	NRA BA 16
AM-STR-06002-02	Asset Management & Maintenance (AM)	Structures (STR)		06002	Standards	The Assessment of Road Bridges and Structures	Published	AM	STR	S	P	01/06/2014	NRA BA 16

Elements of TII Publications

- New Covers
- Expanded Metadata
- New Database
- New Website



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> [Forward Look](#)

The current list of anticipated publications and an estimated publication date.

> [Departure to Standards](#)

Dedicated website for application or management of Departures to TII Publications.

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Library of non-technical TII documentation on the main TII website.

Document Covers

TII
Bonneagar Iompair Éireann
Transport Infrastructure Ireland

TII Publications

GE PE DN CC DP AM RE

Departures from Standards and Specification
(including Erratum No. 1, dated June 2013)

GE-GEN-01005
March 2013

GE General

Standards

TRANSPORT INFRASTRUCTURE IRELAND (TII) PUBLICATIONS

About TII

Transport Infrastructure Ireland (TII) is responsible for managing and improving the country's national road and light rail networks.

About TII Publications

TII maintains an online suite of technical publications, which is managed through the TII Publications website. The contents of TII Publications is clearly split into 'Standards' and 'Technical' documentation. All documentation for implementation on TII schemes is collectively referred to as TII Publications (Standards), and all other documentation within the system is collectively referred to as TII Publications (Technical). This system replaces the NRA Design Manual for Roads and Bridges (NRA DMRB) and the NRA Manual of Contract Documents for Road Works (NRA MCDRW).

Document Attributes

Each document within TII Publications has a range of attributes associated with it, which allows for efficient access and retrieval of the document from the website. These attributes are also contained on the inside cover of each current document, for reference. For migration of documents from the NRA and RPA to the new system, each current document was assigned with new outer front and rear covers. Apart from the covers, and inside cover pages, the documents contain the same information as previously within the NRA or RPA systems, including historical references such as those contained within NRA DMRB and NRA MCDRW.

Document Attributes

TII Publication Title	<i>Vegetated Drainage System for Road Runoff</i>		
TII Publication Number	DN-DNG-03063		
Activity	<i>Design (DN)</i>	Document Set	<i>Standards</i>
Stream	<i>Drainage (DNG)</i>	Publication Date	<i>March 2015</i>
Document Number	<i>03063</i>	Historical Reference	<i>NRA HD 103</i>

NRA DMRB and MCDRW References

For all documents that existed within the NRA DMRB or the NRA MCDRW prior to the launch of TII Publications, the NRA document reference used previously is listed above under 'historical reference'. The TII Publication Number also shown above now supersedes this historical reference. All historical references within this document are deemed to be replaced by the TII Publication Number. For the equivalent TII Publication Number for all other historical references contained within this document, please refer to the TII Publications website.

Document Covers



TII Publications



**Departures and Specific
(including E
dated June**

GE-GEN-01005
March 2013



TII Publications



**Road Safety
Assessment**

PE-PMG-02001
June 2012



TII Publications



**Vegetated Dr
for Road Rur**

DN-DNG-03063
March 2015



TII Publications



**Specification
Works Serie
and Service
Amendment
May 2015)**

CC-SPW-00500
March 2015



TII Publications



**The Design o
Bridges**

AM-STR-06008
June 2014



TII Publications



**Drainage Design For
National Road Schemes -
Sustainable Drainage
Options**

RE-CPI-07001
May 2014

GE General

PE Planning & Evaluation

DN Design

CC Construction & Commissioning

AM Asset Management & Maintenance

RE Research

Technical

Metadata Referencing

Metadata used;

- Document Title
- Activity
- Stream
- Reference number

TII Publication Number

DN-ITS-03020

(DN for Design) – (ITS for Intelligent Transport Systems) – (Reference No.)

Metadata Referencing

Further Meta-Data;

- Historical Reference (i.e. NRA TD 9, Series 500, etc..)
- Document Set ('Standards' or 'Technical')
- Document Status (Published or Withdrawn)
- Publication Dates
- Withdrawal Dates

New Website and Database

Library Tools														
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New Document Upload Document New Folder Edit Document Check Out Check In Discard Check Out View Properties Edit Properties Delete Document Version History Document Permissions E-mail a Link Alert Me Download a Copy Go To Source Send To Manage Copies Workflows Publish Unpublish Approve/Reject Cancel Approval														
New Open & Check Out Manage Share & Track Copies Workflows														
Libraries	Type	Name	ActivityFull	StreamFull	Document Number	Document Set Full	TII Publication Title	Version Type Full	Activity	Stream	Document Set	Version Type	Publication Date	Historical R
Verified Data Standards Public Work in Progress Site Pages		AM-PAV-06045-01	Asset Management & Maintenance (AM)	Pavement (PAV)	06045	Standards	Management of Skid Resistance	Published	AM	PAV	S	P	01/11/2011	NRA HD 28
		AM-PAV-06047-01	Asset Management & Maintenance (AM)	Pavement (PAV)	06047	Technical	Interim Guidelines for Pavement and Maintenance Works	Published	AM	PAV	T	P	01/01/2007	
		AM-PAV-06049-01	Asset Management & Maintenance (AM)	Pavement (PAV)	06049	Standards	Pavement Asset Repair and Renewal - Scheme Approval Procedure	Published	AM	PAV	S	P	01/03/2015	NRA HD 30
		AM-PAV-06050-01	Asset Management & Maintenance (AM)	Pavement (PAV)	06050	Standards	Pavement Assessment, Repair and Renewal Principles	Published	AM	PAV	S	P	01/03/2015	NRA HD 31
		AM-STR-06001-01	Asset Management & Maintenance (AM)	Structures (STR)	06001	Standards	Implementation of BS 5400 Part 10: 1980 - Code of Practice for Fatigue	Withdrawn	AM	STR	S	W	01/08/2010	NRA BA 9
		AM-STR-06001-02	Asset Management & Maintenance (AM)	Structures (STR)	06001	Standards	The Use of BS 5400: Part 10: 1980 - Code of Practice for Fatigue	Published	AM	STR	S	P	01/06/2014	NRA BA 9
		AM-STR-06002-01	Asset Management & Maintenance (AM)	Structures (STR)	06002	Standards	The Assessment of Highway Bridges and Structures	Withdrawn	AM	STR	S	W	01/08/2010	NRA BA 16
		AM-STR-06002-02	Asset Management &	Structures (STR)	06002	Standards	The Assessment of Road Bridges and Structures	Published	AM	STR	S	P	01/06/2014	NRA BA 16

New Website and Database

Welcome to TII Publications

TII's online suite of standards and Technical publications related to national road and light rail networks in Ireland

Design of stru

Interim Requirements for the Use of Eurocodes for the Design of Road Structures (including Geotechnical Works) GE
GE-POL-01008 (NRA IAN 02/11)

Design of Corrugated Steel Buried Structures with Spans Greater Than 0.9 Metres and up to 8 Metres [and Correction, February 2002] DN
DN-STR-03003 (BD 12)

Design of Support Structures for Roadside Furniture DN
DN-STR-03018 (NRA BD 94)

The Design of Concrete Highway Bridges and Structures with External and Unbonded Prestressing AM
AM-STR-06016 (NRA BA 58)

The Design of Concrete Highway Bridges and Structures - Use of BS 5400: Part 4: 1990 AM
AM-STR-06027 (NRA BD 24)

The Design of Buried Concrete Box and Portal Frame Structures AM
AM-STR-06029 (NRA BD 31)

The Design of Concrete Highway Bridges and Structures with External and Unbonded Prestressing AM
AM-STR-06026 (NRA BD 58)

SEARCH

Outline

TII maintains
Publications. T
'Technical' do
All documenta
TII Publicatio
collectively re
available for

Recent Changes

View and updated TII Publications
Publication published recently

Word Look

Recent list of anticipated publications and
related publication date

Move to Standards

Find website for application or
document of Departures to TII Publications

Document Library

Library of non-technical TII documentation on
the main TII website

Website – Advanced Searching



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Select all

Collaboration Projects - Europe (CPE)

Collaboration Projects - Ireland (CPI)

Construction Management (CON)

Drainage (DNG)

General (GEN)

Geometry (GEO)

Guidance on Specification for Works (GSW)

Intelligent Transport Systems (ITS)

Introduction (INT)

Pavement (PAV)

Policy (POL)

Project Management (PMG)

Requirements for Measuring and Pricing (RMP)

Road Equipment (REQ)

Safety (STY)

Specification for Works (SPW)

Standard Construction Details (SCD)

Strategic Management (SMG)

Structures (STR)

Technical Bulletins (TBU)

Only show me

documents that are

or

- All Blocks
- AM** Asset Management & Maintenance
- CC** Construction & Commissioning
- DN** Design
- GE** General
- PE** Planning & Evaluation
- RE** Research

Website – Search Lists



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[Home](#) / [Advanced Search](#) / [Results](#)

REFINE RESULTS BY: Block / Streams: Set: Type:

[Download as Microsoft Excel \(.csv\)](#)

60 Documents found

ASSET MANAGEMENT & MAINTENANCE

AM-PAV-06045 - Management of Skid Resistance	<i>NRA HD 28</i>	<i>01 Nov 2011</i>	<i>Published</i>
AM-PAV-06047 - Interim Guidelines for Pavement and Maintenance Works		<i>01 Jan 2007</i>	<i>Published</i>
AM-PAV-06049 - Pavement Asset Repair and Renewal - Scheme Approval Procedure	<i>NRA HD 30</i>	<i>01 Mar 2015</i>	<i>Published</i>
AM-PAV-06050 - Pavement Assessment, Repair and Renewal Principles	<i>NRA HD 31</i>	<i>01 Mar 2015</i>	<i>Published</i>
AM-STY-06043 - Road Safety Inspection Guidelines	<i>NRA HA 17</i>	<i>01 Dec 2014</i>	<i>Published</i>
AM-STY-06044 - Road Safety Inspection	<i>NRA HD 17</i>	<i>01 Dec 2014</i>	<i>Published</i>
AM-STY-06046 - NRA HD 17 Road Safety Inspections - Inspection Team Qualifications		<i>30 Jun 2012</i>	<i>Published</i>

CONSTRUCTION & COMMISSIONING

CC-GSW-00001 - Notes for Guidance on the Specification for Road Works Series NG 000 - Introduction	<i>Series NG 000</i>	<i>01 Mar 2015</i>	<i>Published</i>
CC-GSW-00100 - Notes for Guidance on the	<i>Series NG 100</i>	<i>01 Mar 2015</i>	<i>Published</i>

Website – Document Page

[Home](#) > [NRA TD 19 - Safety Barriers \(including Amendment No. 1, dated December 2014\)](#)



DN-REQ-03034 - Safety Barriers (including Amendment No. 1, dated December 2014)

TII Publication Number	DN-REQ-03034	Publication Date	31/05/2014
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Document Set	Standards	Activity	DESIGN
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Stream	Road Equipment (REQ)	Historical Reference	NRA TD 19
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Version Type	Published	Version Number	9
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Version History

Version 9 - May 2014

Version 8 - March 2013

Version 7 - January 2009

Version 6 - December 2007

Version 5 - June 2004

Version 4 - March 2003

Version 3 - March 2002

Version 2 - August 2001

Version 1 - December 2000

What's new?

- Rebranding to TII from NRA
- Over-arching structure of Activities and Streams
- Database of documents based on expanded metadata
- TII Publications website
- Enhanced functionality for searching and listing documents
- TII Publication Number replaces NRA Standards References
- Increased flexibility to add documentation

AM

CC

DN

GE

OP

PE

RE

What stays the same?

- Initially the technical contents of all documents
- The implementation and policies around standards
- The underlying processes around the development of standards
- Objectives of TII Publications (Standards) including;

“...promote quality and consistency of approach in relation to the design and construction of road and bridge projects;

...to achieve an appropriate balance of economy, safety, sustainability and durability on road schemes”

Future developments - Standards

Possible Standards document developments may include;

- Adoption of Interim Advice Notes
- Development of new Standards
- Restructuring of existing Standards
- Adoption of documentation currently outside of Standards to form part of TII Publications (Standards)

Future developments - Technical

Possible Technical document developments may include adding;

- TII Technical Policy Documents;
- TII Strategic Reports on Technical Issues;
- TII Technical Information Notes (such as Technical Bulletins);
- TII Technical Approval Systems;
- Other TII Technical Reports (e.g. Pilots and Trials)

Website – Live Demonstration

<http://www.tiipublications.ie/>

Implications for Users

Gavin O'Donnell, Associate Director at Arup

Definition of TII Publications (Standards)

From “Implementation and Use of TII Publications (Standards) Documentation (GE-POL-01030)”

TII Publications (Standards) is a collection of documentation (documents and drawings) that define the standard to be complied with in respect of the design, construction or maintenance of National Roads schemes in Ireland. TII Publications (Standards) documentation can be accessed through the online website (<http://www.tiipublications.ie/>), and includes documentation containing mandatory requirements, guidance, advice and standard drawings.

Implementation Overview

- The effective date for the new TII Publications system is 1 June 2016
- From this date, the existing NRA Standards website will no longer be available
- Also from this date, all references within the existing NRA Standards system will be considered historical, i.e.
 - NRA DMRB and NRA MCDRW as manuals
 - NRA TD 19, NRA BD 2, NRA HD 20, etc. as Standards
 - Series 500, NG Series 500, MM Series 500, etc. as relevant to Contracts

Implementation Overview

- From the effective date, the new TII Publication Numbers will be in use, together with the Historical References
- TII Publications (Standards) will be the new system title
- New 'Collective' references will also be in place, particularly for the Construction and Commission (CC) activity, e.g.
 - Specification for Works (SPW)
 - Guidance on Specification for Works (GSW)
 - Requirements for Measuring and Pricing (RMP)
 - Guidance on Measuring and Pricing (GMP)
 - Standard Construction Details (SCD)

7 'Pillar' Activities

General (GE)

Planning and Evaluation (PE)

Design (DN)

Construction and Commissioning (CC)

Operations (OP)

Asset Management and Maintenance (AM)

Research (RE)

Construction and Commissioning (CC)



- Specification for Works (SPW)
- Guidance on Specification for Works (GSW)
- Requirements for Measuring and Pricing (RMP)
- Guidance on Measuring and Pricing (GMP)
- Standard Construction Details (SCD)
- Pavement (PAV)
- Construction Management (CMG)



- Archaeology (ARC)
- Environment (ENV)
- Cost Management (CON)
- Contract Documentation (CON)
- Safety (STY)
- Testing and Commissioning Management (TCM)

Construction and Commissioning (CC)

Previously Volume 1 of the
NRA MCDRW



Specification for Works (SPW)

Archaeology (ARC)

Guidance on Specification for Works (GSW)

Environment (ENV)

Requirements for Measuring and Pricing (RMP)

Cost Management (CON)

Guidance on Measuring and Pricing (GMP)

Contract Documentation (CON)

Standard Construction Details (SCD)

Safety (STY)

Pavement (PAV)

Testing and Commissioning Management (TCM)

Construction Management (CMG)

Construction and Commissioning (CC)

Previously Volume 2 of the
NRA MCDRW



Specification for Works (SPW)

Archaeology (ARC)

Guidance on Specification for Works (GSW)

Environment (ENV)

Requirements for Measuring and Pricing (RMP)

Cost Management (CON)

Guidance on Measuring and Pricing (GMP)

Contract Documentation (CON)

Standard Construction Details (SCD)

Safety (STY)

Pavement (PAV)

Testing and Commissioning Management (TCM)

Construction Management (CMG)

Construction and Commissioning (CC)

Previously Volume 3.1 of the
NRA MCDRW



- Specification for Works (SPW)
- Guidance on Specification for Works (GSW)
- Requirements for Measuring and Pricing (RMP)**
- Guidance on Measuring and Pricing (GMP)
- Standard Construction Details (SCD)
- Pavement (PAV)
- Construction Management (CMG)



- Archaeology (ARC)
- Environment (ENV)
- Cost Management (CON)
- Contract Documentation (CON)
- Safety (STY)
- Testing and Commissioning Management (TCM)

Construction and Commissioning (CC)

Previously Volume 3.2 of the
NRA MCDRW



- Specification for Works (SPW)
- Guidance on Specification for Works (GSW)
- Requirements for Measuring and Pricing (RMP)
- Guidance on Measuring and Pricing (GMP)**
- Standard Construction Details (SCD)
- Pavement (PAV)
- Construction Management (CMG)

- Archaeology (ARC)
- Environment (ENV)
- Cost Management (CON)
- Contract Documentation (CON)
- Safety (STY)
- Testing and Commissioning Management (TCM)

Construction and Commissioning (CC)

Previously Volume 4 of the
NRA MCDRW



- Specification for Works (SPW)
- Guidance on Specification for Works (GSW)
- Requirements for Measuring and Pricing (RMP)
- Guidance on Measuring and Pricing (GMP)
- Standard Construction Details (SCD)**
- Pavement (PAV)
- Construction Management (CMG)

- Archaeology (ARC)
- Environment (ENV)
- Cost Management (CON)
- Contract Documentation (CON)
- Safety (STY)
- Testing and Commissioning Management (TCM)

TII Publication Numbers

Example

CC-SPW-00500

(CC for Construction and Commissioning)

(SPW for Specification for Works)

(Numeric Reference No.)

Historical References	TII Publication Numbers
Series 500	CC-SPW-00500
NG Series 500	CC-GSW-00500
MM Series 500	CC-RMP-00500
MMNG Series 500	CC-GMP-00500
RCD/500/20	CC-SCD-00520

Implementation for Contracts

- Amendments have been made to the key implementation documentation for Contracts (previously NRA MCDRW), including;

NRA MCDRW Ref	NRA MCDRW Title	TII Publication Number
Series 000	Specification	CC-SPW-00010
NG Series 000	Notes for Guidance to Specification	CC-GSW-00010
Vol 3, Part 1, Chapters I, II and III	Method of Measurement	CC-RMP-00010
Vol 3, Part 2, Chapters I, II and III	Notes for Guidance to Method of Measurement	CC-GMP-00010

Implementation for Contracts

- Typical amendment to the Preamble to the Specification appears as follows;

PREAMBLE TO THE SPECIFICATION

- 1 The Specification referred to in the Contract shall be the Specification for Works (SPW) in TII Publications (Standards) published by TII as a collective group of documents under the Construction and Commissioning activity within the online TII Publications system (<http://www.tiipublications.ie/>), current on the date 10 working days prior to the tender returns date or, if applicable, the extended tender returns date and incorporating all amendments current on that date and as extended by the following:-

 - i) Appendix 0/1: Contract-specific Additional, Substitute and Cancelled Clauses, Tables and Figures;
 - ii) Appendix 0/2: Contract-specific minor alterations to existing Clauses, Tables and Figures;
 - iii) The Numbered Appendices listed in Appendix 0/3;
 - iv) Appendix 0/4 containing a list of the drawings referred to in the Specification.

Implications for Users (Today)



- The TII Publications system is now available for users to review, interact with and become familiar with
- All users should subscribe for updates to the new system (automatic for existing subscribers)
- There is no immediate effect on existing Contracts, as the NRA Standards system remains effective
- Users should use the transition period to become aware of the changes to be implemented
- The Effective Date of the new system is 1 June 2016

Implications for Users



- All relevant Contract documentation shall implement the new system from 1 June 2016
- Tenders where the submission date is within 2 weeks of 1 June 2016 must include reference to the new system, including Preambles, etc..
- However, reference to specific TII Publication Numbers for individual documentation does not need to be updated initially (although it can be)
- A check for conflicts with references within all updated Contract documentation should be undertaken

Implications for Users



- From the start of 2017, all Contracts shall be updated to reflect the correct references to the TII Publications system, including all TII Publication Numbers;
- TII is developing a base set of D&B/PPP Schedules and Employer Design Contract Specification Appendices, which shall also be updated by TII;
- TII will continue to develop and update technical requirements in documentation
- TII will review policy in respect of the way Standards and Specifications are assembled and grouped

Implications for Users (Longer Term)

- TII will implement a programme of updates to TII Publications documentation, which aligns with the lifecycle approach and the way technical requirements are used with respect to TII services and projects
- New and updated documentation will be notified to subscribed users of the TII Publications system in the normal way.



Closing Remarks

Helen Hughes, Director of Professional Services at TII

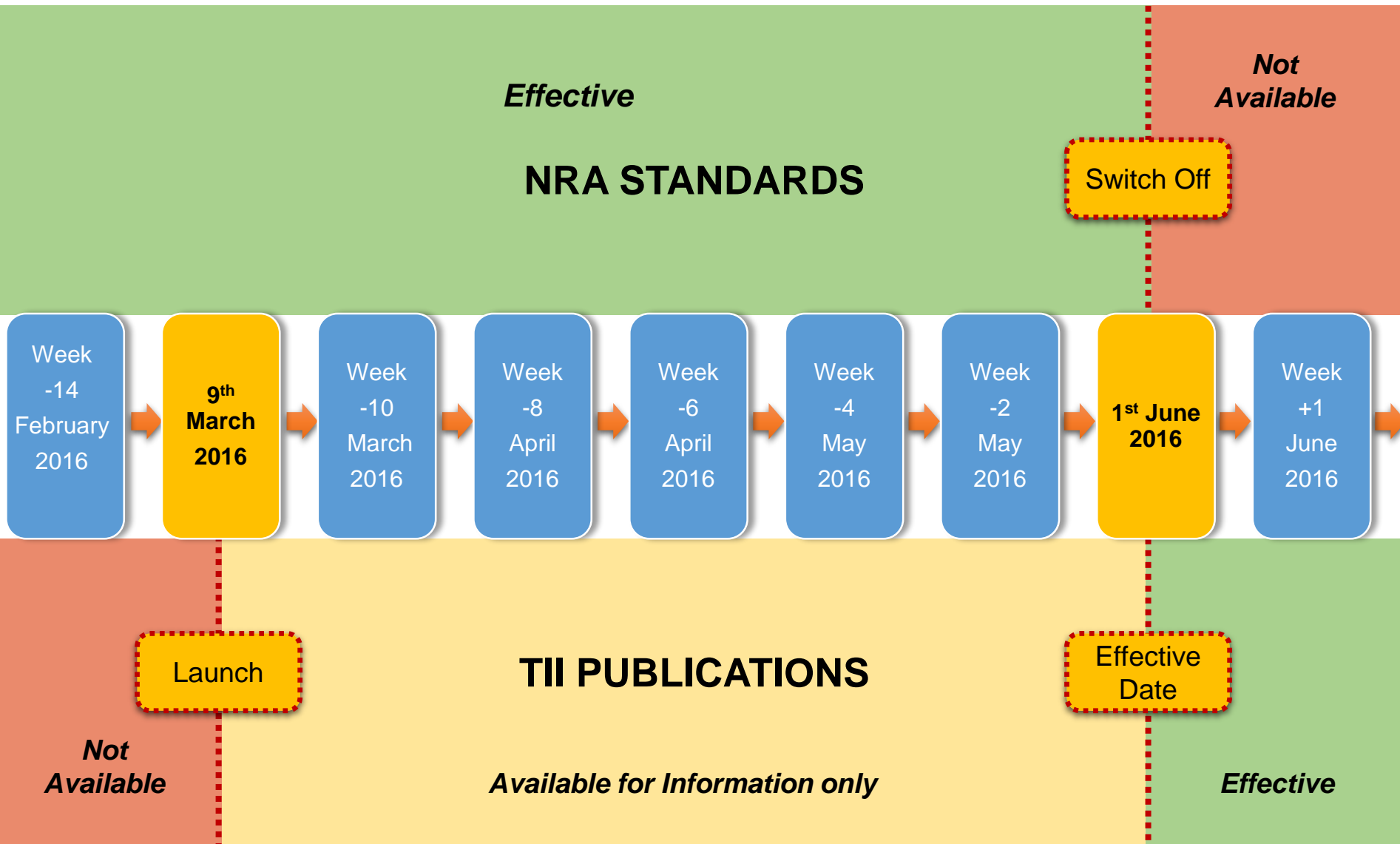
Closing remarks

- TII Publications is being launched today!
- TII Publications is now available for **information only**, during a transition period;
- On **1 June 2016** TII Publications will become **effective**;
- From that date, TII Publications will be the source for all current and new Standards and Specification documentation relating to the design, construction and maintenance of National Roads schemes in Ireland;
- The system also contains other TII technical documentation, relating to TII services and projects.

Closing remarks

- New TII Publication Numbers will replace the familiar NRA Standards references (which still be visible as Historical References)
- Initially, the technical contents of the Standards has not changed
- There are implications for Contracts, where users will need to be aware of the implementation requirements presented.

Transition to TII Publications



Questions & Answers

Panel of Presenters