



An Roinn Iompair
Department of Transport



Cumann Lucht Bainistíochta Contae agus Cathrach
County and City Management Association

ROADS Services Training Group

LOCAL AUTHORITY ROADS CONFERENCE and EXHIBITION - 2023

Day 2 Session 2 Presentation 1-Charlie Kerr

Hodson Bay Hotel Athlone, May 2023



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Department of Transport



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County and City Management Association

LOCAL AUTHORITY ROADS CONFERENCE and EXHIBITION – 2023

Temporary Traffic Management

Charlie Kerr

Director

ProWork Core Ltd.



Working in a Live Environment

- Traffic Management
 - (NOT Control)
- You are only in control of
 - Your Crew
 - Your Equipment/Plant
 - Your Work Area



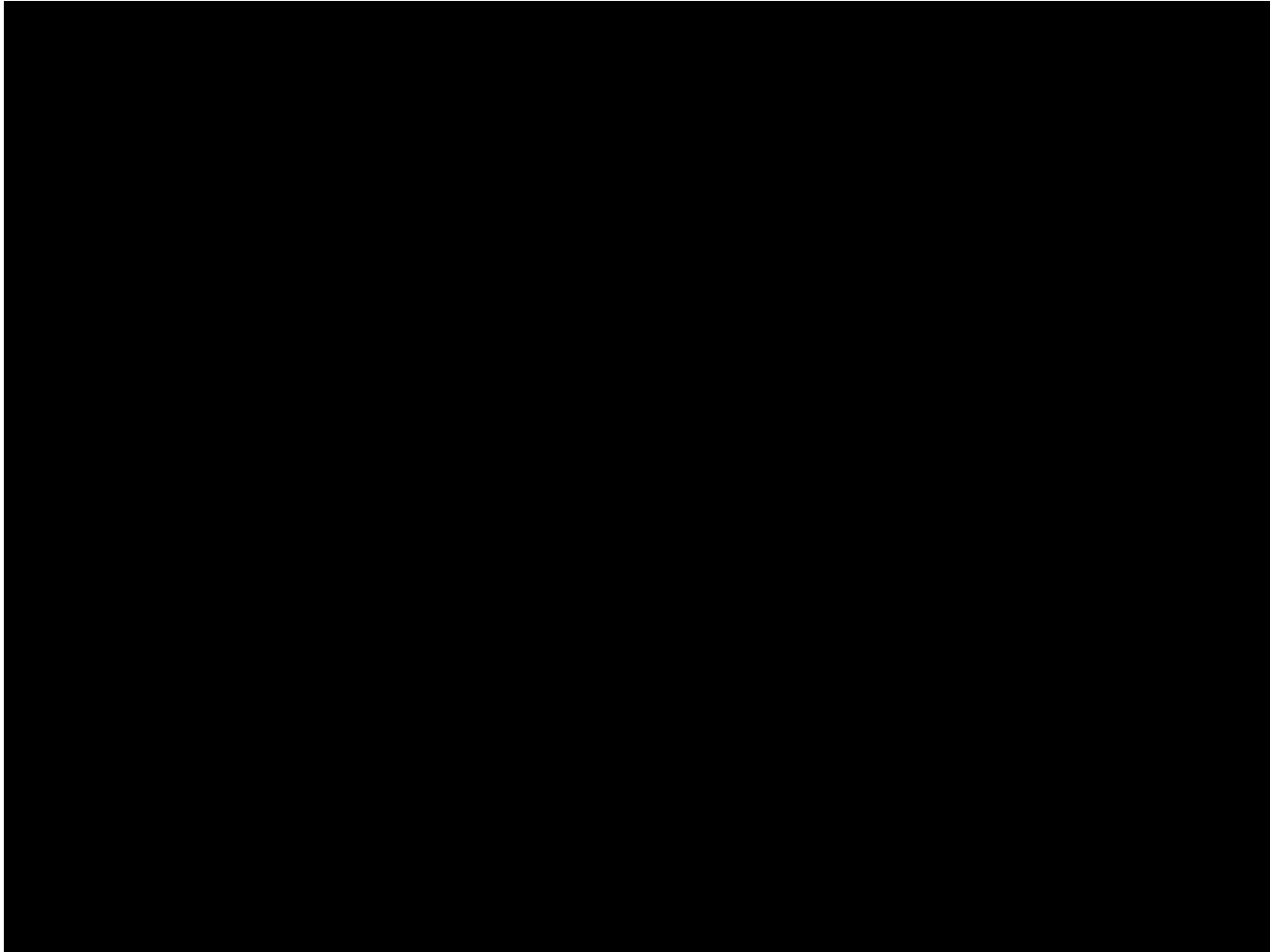


Nobody Plans to Have an Accident





You do not control who is approaching your site





Risk

- Depends on
 - Site
 - Works
- Normally
 - Low
 - Medium
 - High



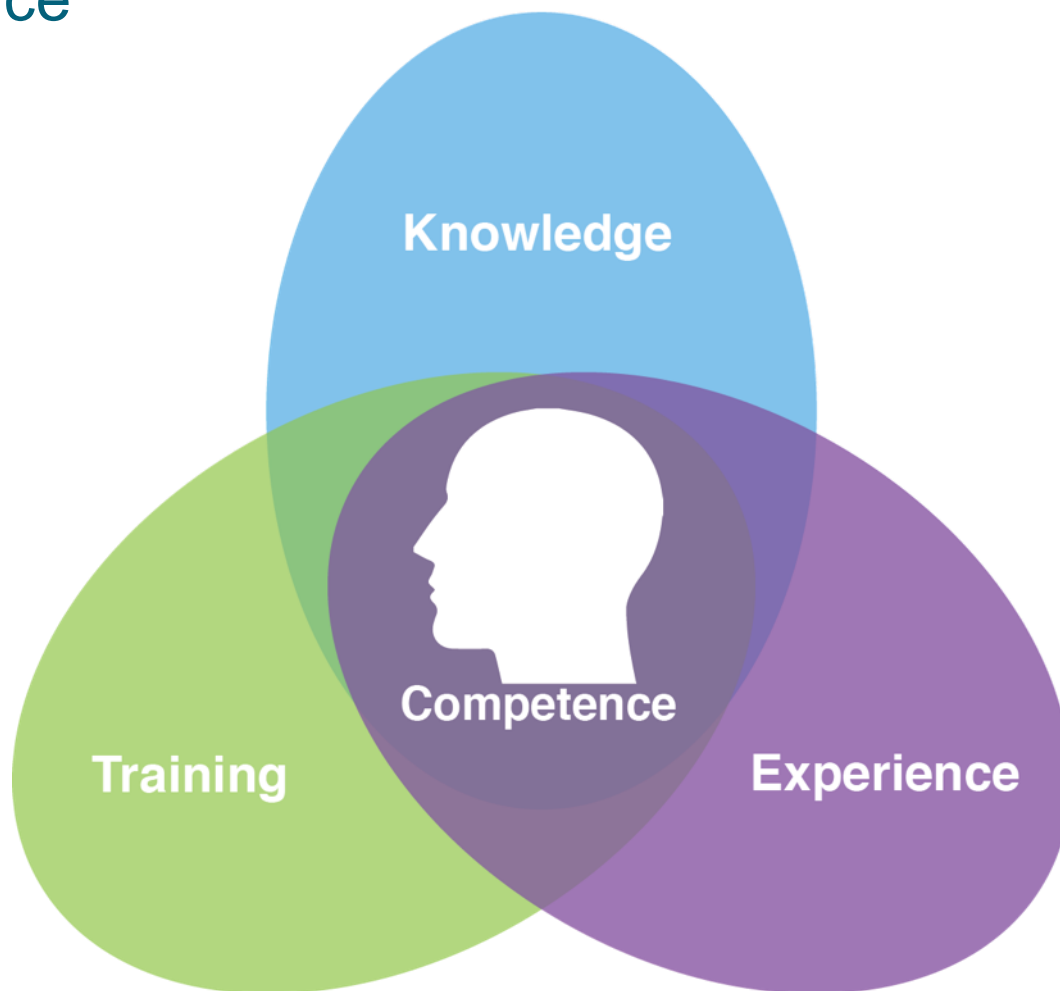


Competency Requirement





Competence







Prescribed Training

- CSCS Signing, Lighting and Guarding at Roadworks
- CSCS Health and Safety at Roadworks





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Motorway Training

- Static Operative
- Mobile Operative
- IPV Driver
- Supervisor





Designer Training

- Should have level 6 engineering/ safety qualification
- Should have accredited Traffic Management Design Qualification
 - Level 1 and 2 Roads
 - Level 3 Roads





Traffic Management Auditor Training

- Should have level 6 engineering/ safety qualification
- Should have accredited Traffic Management Audit OR Traffic Management Design Qualification
- Experience
 - 7 Years postgraduate
 - 5 Years in road design, construction, or traffic management








Pedestrians

- ❑ Where present, pedestrians must be catered for
 - Footways
 - Pedestrian desire lines
- ❑ Where appropriate (following a risk assessment), one of the following is selected
 - Accommodate pedestrians on existing footway or along the pedestrian desire line
 - Provide a temporary footway along the works
 - Divert pedestrians to alternative footway
 - Close crossing point and divert to alternative crossing point
 - Provide a pedestrian controller
 - ❑ May be a dedicated operative or a member of the crew, depending on the Risk Assessment



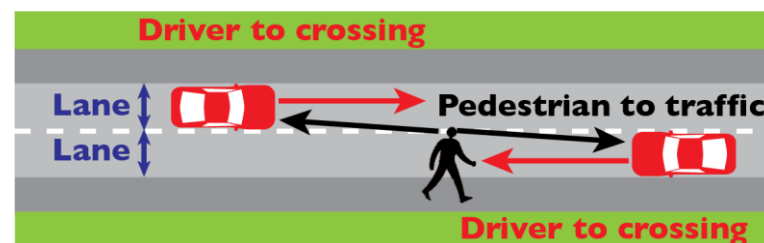


Diverting Pedestrians

Speed	Visibility	
	Pedestrian to traffic	Driver to Crossing
	30m/lane	25m
	45m/lane	45m
	60m/lane	60m



Where route is not obvious, or
instructing pedestrians to cross

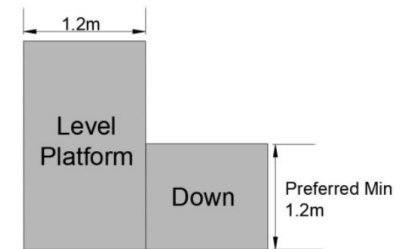




Pedestrian Ramps

- ❑ Must be strong enough to support pedestrians and mobility scooters
- ❑ Should have a skid resistant surface
- ❑ Should be minimum 1m wide (with side lips)
- ❑ Should be minimum 650mm breadth
 - Gradient of 1 in 5 for people using wheelchairs
- ❑ Should NOT be formed with delay set macadam
 - Maintenance issue
 - Adversely effects drainage

Wheelchair ramp



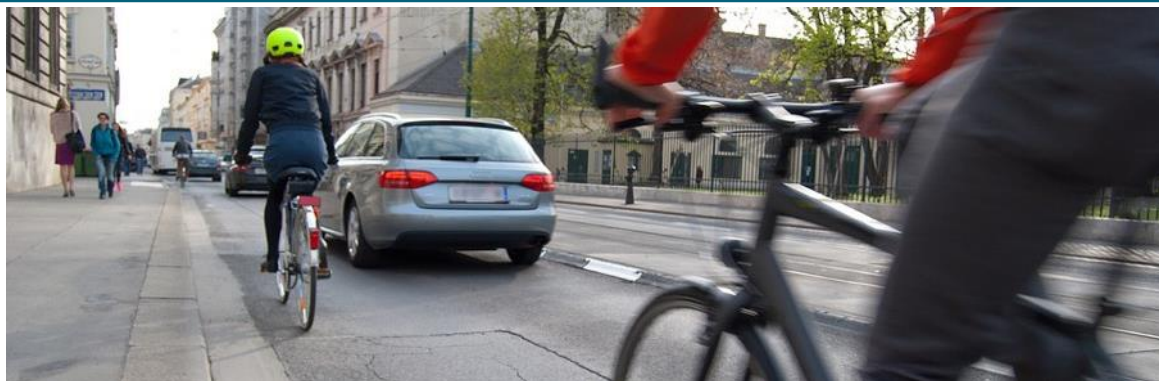


Pedestrian Dimensions

Clearance	Dimension
Desirable minimum width <i>(allows 2 wheelchairs to pass)</i>	1.8m
Minimum width <i>(caters for person with wheelchair and pedestrian to pass)</i>	1.2m
Absolute minimum <i>(caters for person with wheelchair to pass obstacle)</i>	1.0m
Minimum width in all cases	Should match existing
Minimum clear headroom	2.3m










Cyclists



- ❑ Overall risk to cyclist should be considered on a case by case basis
 - Likely volume of cyclists vs the effect on them
 - Where cycle lanes are present, cyclists should be catered for
- ❑ Where appropriate (following a risk assessment), one of the following is selected
 - Share the running lane with vehicular traffic
 - Dedicated cycle track on the carriageway
 - Shared bus lane/ cycle lane
 - Dedicated cycle track not on the carriageway
 - Combined pedestrian and cycle track
- ❑ Where possible, mirror the permanent arrangements
- ❑ "Cyclist Dismount" signs should NOT be used (unless selected by Designer)



Unobstructed Lane Width past works (m)	<p>➤ For simplicity the most practicable lane widths are 4.0-4.2m, if they can be achieved</p>	
< 3.3	Do not need to erect Cyclists sign if existing (permanent) lane width < 3.3m	N/A
	<p>If existing (permanent) lane width ≥ 3.3m, then should erect Cyclists sign, when lengths of shuttle exceed</p> <p>\leq  : 50m</p> <p>  : 80m</p>	
3.3 – 3.5	Can be used	N/A
3.5 – 4.0	To be avoided	N/A
> 4.0	Can be used	N/A
	<p>If closing a permanent cycle track</p>  	



Jobpacks: Routine Works

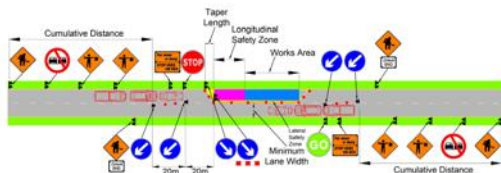
- Standard Layout with method statement
- Site specific record of selecting standard layout
- Safe System Of Work Plan (SSWP)

Stop and Go Operation



Introduction

A Stop and Go operation is suitable for **Level 2 roads** with a speed limit up to **100km/h**. The TTGS should ensure that the Gardaí have been notified in advance of the operation. It is regulated by TTM operatives. The works site should be limited to a maximum length of 500m. A **single TTM operator** can be used for works **up to 200m** provided **two automatic signs** are used for lengths in excess of 100m. Automated Stop / Go boards are useful for works where only a single TTM operator is available. **Tapers** are at 45° with cones at 1m centres. **Traffic counts** are carried out over **3 minutes** prior to installation. Traffic volumes are monitored throughout the works.



Roadwork Type	Speed (km/h)	No. Signs / Cumulative Distance (m)	Sign Visibility (m)	Longitudinal Safety Zone (m)	Lateral Safety Zone (m)	Max Cone / Lamp Spacing (m)
Level 2 (B A)	80	4 / 480	90	45	1.2	12 / 24
Level 2 (B B)	80	3 / 360	90	45	1.2	12 / 24
Level 2 (B A)	100	4 / 800	120	60	1.2	12 / 24
Level 2 (B B)	100	3 / 600	120	60	1.2	12 / 24

Summary Criteria

Coned Area Length (including Tapers) (m)	Max Vehicles per 3 mins	TTM Operators
20	25	Min. 1 TMO + 1 sign
100	70	Min. 1 TMO + 2 auto signs
200	65	Min. 1 TMO + 2 auto signs
300	55	Min. 2 TMO's + 2 boards
400	50	Min. 2 TMO's + 2 boards
500	45	Min. 2 TMO's + 2 boards

Operation Lane Widths

Max Lane Width (All Classes)	Optimum Lane Width (All Classes)	Minimum Lane Width (All Classes)	Absolute Minimum (Cars & Light Vehicles only)
4.0m	3.3m	3.0m	2.5m

Installation

- On arrival on site, park TTM vehicle safely and off the cartway if possible.
- The TIOS identifies the works area and carries out a Risk Assessment.
- Deformable a safety place to set up the Stop and Go Operation.
- Install the WK 001 Roadworks Ahead signs, which are always the first signs to be installed.
- The safety zones and taper and signs shall now be measured out after which the position of the Advance Warning Signage is confirmed and the equipment laid out on the kerb / verge.
- The next signs to be installed are the WK 001 Roadworks Ahead signs.
- Install advance central coning and WK 005 Stop Here On Red sign.
- Install the WK 001 with P10 End Joints 20 - 50m after end of works.
- Repeat the above sequence for all approaches to the works.
- Place RUS 012 Keep Right arrow on kerb edge or verge at start of the lead in taper, then step out cones for lead in taper and install RUS 012 Keep Right arrow.
- Install cones along safety zone and the length of the required works area.
- Install exit taper.
- TIOS carries out a final check.
- Check all works personnel, plant, materials and debris are cleared and site is safe to traffic.
- Pull TTM equipment around the works area to the kerb / verge under the protection of the longitudinal cone run and lead in taper.
- Pull off the exit taper and longitudinal cone run back to the lead in taper.
- Pull off the lead in taper and open cartway to traffic.
- Load TTM equipment onto the TTM vehicle.
- Remove and load Advance Warning Signage.
- The last signs to be removed are the WK 001 Roadworks Ahead signs.
- Check all equipment is loaded securely and safely on the TTM vehicle.
- Make a final check of the site ensuring all items are removed.
- Do not leave signs in place when no works are being carried out.
- Leave site.

Removal

1. Check all works personnel, plant, materials and debris are cleared and site is safe to traffic.
2. Pull TTM equipment around the works area to the kerb / verge under the protection of the longitudinal cone run and lead in taper.
3. Pull out the exit taper and longitudinal cone run back to the lead in taper.
4. Pull off the lead in taper and open carriageway to traffic.
5. Load TTM equipment onto the TTM vehicle.
6. Remove and Load Advance Warning Signs.
7. The last signs to be removed are the WK 001 Roadworks Ahead signs.
8. Check the equipment is loaded securely and safely on the TTM vehicle.
9. Make a final check of the site ensuring all items are removed.
10. Do not leave signs in place when no works are being carried out.
11. Leave site.

Site Specific Record for Standard Traffic Management Plan

Job Name/ID: _____ Date: _____ Location: _____
SLG Cardholder: _____

Step 1: Record Road Details

Visibility: ☐ 25m ☐ 35m ☐ 50m ☐ 60m ☐ 90m ☐ 120m ☐ 160m

Width: ☐ 35m ☐ 60m ☐ 90m ☐ 120m ☐ 160m

Value (m): value (m) value (m) value (m) value (m) value (m)

Step 2: Record Work Site Details

Time needed: value (h:mm) value (m) value (m)

Unobstructed width left open: value (m) value (m)

Works length: value (m) value (m)

Step 3: Record Traffic Management Selection

Diversion: ☐ No ☐ Yes
 Semi-Static: ☐ No ☐ Yes
 2-way: ☐ No ☐ Yes
 All Stop: ☐ No ☐ Yes
 Step-Gate: ☐ No ☐ Yes
 Traffic Signal: ☐ No ☐ Yes
 Manual: ☐ No ☐ Yes
 Priority: ☐ No ☐ Yes
 Give & Take: ☐ No ☐ Yes
 Cemetery: ☐ No ☐ Yes

Step 4: Record Traffic Management Devices Implemented

Warn → Inform → Direct → End

Warn	Inform	Direct	End

SAFE SYSTEM OF WORK PLAN (SSWP)

WORKING ON ROADS Plan No.

Job Details		Resources Required		Emergency Details	
Employee Name _____		Worker Title _____		Contact Names & No. _____	
Responsible Person/Supervisor _____				1 _____	
Number of Workers _____				2 _____	
Specify Location _____		Part/Equipment _____		3 _____	
Description of Work _____				First Aid _____	
		Hazardous Materials _____		Location of First Aid Kit _____	
Start Date _____				NOR PERMITS REQUIRED _____	
<p>NOTE: A new EOP must be completed when the task or the environment changes.</p> <p>Before Work Starts the following MUST be in place (Yes/No)?</p> <p>SELECT <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NOISE <input type="checkbox"/> CONTROL <input type="checkbox"/> ALL <input type="checkbox"/> CONTRACTS <input type="checkbox"/> IDENTIFIED BEFORE MUST BE IN PLACE BEFORE WORK STARTS</p> <p>OR ACTIVITY <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NOISE <input type="checkbox"/> CONTROL <input type="checkbox"/> ALL <input type="checkbox"/> CONTRACTS <input type="checkbox"/> IDENTIFIED BEFORE MUST BE IN PLACE BEFORE WORK STARTS</p>					
<div> Flammable </div>		<div> Corrosive </div>		<div> Toxic </div>	
<div> Explosive </div>		<div> Irritant </div>		<div> Radioactive </div>	
<div> Compressed Gas </div>		<div> Oxidizing </div>		<div> Health Hazard </div>	
<div> Environment </div>		<div> Acute Toxic </div>		<div> Chronic Toxic </div>	
<div> Corrosive </div>		<div> Irritant </div>		<div> Radioactive </div>	
<div> Compressed Gas </div>		<div> Oxidizing </div>		<div> Health Hazard </div>	
<div> Environment </div>		<div> Acute Toxic </div>		<div> Chronic Toxic </div>	
<div> Corrosive </div>		<div> Irritant </div>		<div> Radioactive </div>	
<div> Compressed Gas </div>		<div> Oxidizing </div>		<div> Health Hazard </div>	
<div> Environment </div>		<div> Acute Toxic </div>		<div> Chronic Toxic </div>	
<div> Corrosive </div>		<div> Irritant </div>		<div> Radioactive </div>	
<div> Compressed Gas </div>		<div> Oxidizing </div>		<div> Health Hazard </div>	
<div> Environment </div>		<div> Acute Toxic </div>		<div> Chronic Toxic </div>	
<div> Corrosive </div>		<div> Irritant </div>		<div> Radioactive </div>	
<div> Compressed Gas </div>		<div> Oxidizing </div>		<div> Health Hazard </div>	
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<div> Compressed Gas </div>		<div> Oxidizing </div>		<div> Health Hazard </div>	
<div> Environment </div>					



Jobpacks: Traffic Management Designer

➤ Sit

➤ TT

➤ Lo

➤ Sit

➤ Sit

TEMPORARY TRAFFIC MANAGEMENT DESIGN SHEETS

Health Project

Job No.	Traffic
Job Loca	Road
TTM Des	Detou
Job Desc	Two
PSDP	Shutt
Total No.	

Works

Works Le	Mars
Works Di	Conv
Working	Semi
Unobstru	Road
TTM Wor	Cauti
Number	All St

Hazard Map Re

WK 001	Sign Ref
RUS 014	
RUS 039-044	
WK 032	
WK 033	
WK 034	
WK 060	
WK 061	
WK 062	
WK 064	

Safe Operating Procedures Traffic Management

Specific Site Instructions

Timing of Operations

Start of Installation of Traffic Management: 7pm night 1

Completion of 2-way Phase Change: 7am day 2

Start of Stop-Go Phase Change (Phase 5): 7pm night 2

Road open for traffic: 7am day 3

Installation of Phase 1

Installation

1. On arrival on site, park TTM vehicle safely and off the carriageway if possible.
2. The TTOS identifies the works area and carries out a Risk Assessment.
3. Determine safe places to position the Stop and Go Operators.
4. Install the WK 001 Roadworks Ahead signs, which are always the first signs to be installed.
5. The safety zones and tapers shall now be measured out after which the position of the advance signs are calculated and TTM equipment laid out on the kerb/ verge.
6. The next signs to be installed are the WK 061 Flagman signs.
7. The next signs to be installed are the WK 086 Cyclist Present signs.
8. The next signs to be installed are the Cycle Lane Ends signs.
9. The next signs to be installed are the WK 082 Pedestrian Crossing signs.
10. Install the WK 095 Stop Here on Red sign.
11. Install WK 001/P 010 Roadworks End Sign 20-50m after the end of the site.
12. South Junction Traffic Island
 - a. The TTOS carries out a Risk Assessment.
 - b. The TTOS calls an All-Stop.
 - c. Install the island coning, pedestrian barriers and signage
 - d. TTOS carries out a check
 - e. The TTOS calls off the All-Stop.
13. Install the 10m centre-line coning with a RUS 001 Keep Left arrow at each end (only if gap at narrow end $\geq 3.0m$). Keep 20m gap before Shuttle tapers. Use All-Stop if required.
14. Repeat the above sequence of signs for all approaches.
15. West End: Place RUS 002 Keep Right arrow on kerb edge or verge at start of the lead in taper, then step out cones and install RUS 002 Keep Right arrow at end of lead in taper.
16. Install cones along safety zone and the length of the required works area.

SITE SPECIFIC SHEET

Safe Operating Procedures Traffic Management

17. East End: Place RUS 001 Keep Left arrow on kerb edge or verge at start of the lead in taper, then step out cones and install RUS 002 Keep Right arrows at end of taper.
18. Install Pedestrian barriers, including pedestrian keep left/right at closed crossing points.
19. Cover the pedestrian crossing traffic signals
20. Install pedestrian route, overhead cables and remaining site signage. Temporary ramps are to be provided at the temporary crossing points.
21. TTOS carries out a check.
22. Inform workforce they may proceed to carry out the works.

Operation

1. 2-way radios (or other reliable means of communication) must be provided
2. The "Lead" Stop and Go Operator should be assigned to the clear lane (westbound)
3. Stop is always shown to approaching traffic until it comes to a halt
 - a. Once the vehicle stops, it is then allowed through using Go.

Change Phase 1 to Phase 2

1. Ensure all works are complete and that surface is safe and ready to be trafficked
2. The TTOS carries out a Risk Assessment.
3. The TTOS calls an All-Stop. (The layout has been designed for a quick transfer of equipment and set-up on other side of road)
4. Ensure that WK070: Ramp signs are installed prior to opening the eastbound lane for traffic.
5. TTOS carries out a final check
6. Revert to Stop-Go Operation
7. Inform the workforce they may proceed to carry out the works.

Junction works (Phase 2b)

8. The TTOS carries out a Risk Assessment.
9. The TTOS calls an All-Stop.
10. Junction Work is completed (not holding traffic for more than 10 minutes at a time)
11. The TTOS carries out a check
12. Revert to Stop-Go Operation



Safe Management Systems

Plan

- Resources
- Layout
- Method

Safe Place Strategy

Do

- Risk Assess
- Organise
- Implement

Safe Person Strategy

Check

- Check
- Monitor

Act

- Review
- Safety Plan



Audits and Inspections

1. NRA HD 16

- ✂ EU safety management directive
2008/96/EC
(SI 472/2011)

2. Primarily for road user

3. Trained auditor

1. Engineer/ Safety professional
2. 7 years postgraduate & 5 years in road design/construction
3. 2 day certified auditing course

4. NOT a designer

1. Identify problems NOT solutions

Works Duration	% of sites	Frequency
> 1 year	100%	Quarterly
6 months - 1 year	100%	Twice annually
1 month - 6 months	50%	Single
12 hours - 1 month	10%	Single
< 12 hours	(contract) < 3 mon 3-6 > 6	Random 1 2 4



Audit

Temporary Traffic Management Audit										
Date	Time		Location							
Client		Contact Details								
TTM Designer					PSDP					
Contractor					PSCS					
Inspector / Auditor					Contact					
Road Number		Speed Limit		Roadworks Duration						
Carriageway Details		Single	Dual Carriageway		Motorway					
Climbing Lane		Minor	Urban Multi-Lane		Hard Shoulder (Y/N)					
Works Description										
Rating	Colour Coding	Definition								
Acceptable	A	TTM operating safely and in accordance with required standard								
Improvement Required	I	Minor Non conformance requires improvement								
Unacceptable	U	Major Non conformance, TTM requires immediate corrective action								
Not Reviewed	N/R	Item not reviewed or not applicable to the site inspected								
No	Audit Measure					A		I	U	N/R
AM.1	Is there a TTM Job Information Pack and is it commensurate with the scale of works?									
AM.2	Is there a Safe System of work plan that records the implementation, modification, maintenance and removal of the appropriate TTM Controls?									
AM.3	Are the works supervised by a suitably qualified TTOS with a CSCS SLG Card, including the card holders' presence on site while TTM is being installed, modified, or removed ?									
AM.4	If a CSCS SLG Cardholder is not on site, is there a CSCS Health and Safety at Roadworks Cardholder on site while works are in progress									
AM.5	If a site specific TTPM prepared by a designer has been used has it been designed by a suitably qualified TTM Designer and is there a TTM design risk assessment?									
AM.6	If standard plans are used:									
	Are the works covered by a Standard Operating Procedure and, if so, are those supervising the works aware of its contents?									
	Has the plan been assessed as suitable for the specific location?									
AM.7	Is there evidence of notification to the Gardaí where temporary traffic signals or Stop and Go systems are in use?									
AM.8	If road closure is in place, is there an order under Section 75 of the Roads Act 1993?									
AM.9	If a roadworks speed limit is in place is there an Order under Section 10 of the Road Traffic Act 2004.									
AM.10	Will the site be safe during hours of darkness and adverse weather conditions?									
AM.11	Is there safe access and egress to adjacent private property and local roads?									
AM.12	If required, have the needs of vulnerable road users been addressed in the layout?									
AM.13	Does the Organisation responsible for the TTM have in place policies and procedures under their Safety Statement covering the management of TTM?									
Audit Results										
	A	I	U							

[illegible]



Inspection

Temporary Traffic Management Inspection											
Date	Time		Location								
Client	Contact Details										
TTM Designer					PSDP						
Contractor					PSCS						
Inspector / Auditor					Contact						
Road Number				Speed Limit		Roadworks Duration					
Carriageway Details		Single		Dual Carriageway				Motorway			
Climbing Lane		Minor		Urban Multi-Lane				Hard Shoulder (Y/N)			
Works Description											
Rating		Colour Coding		Definition							
Acceptable		A		TTM operating safely and in accordance with required standard							
Improvement Required		I		Minor Non conformance requires improvement							
Unacceptable		U		Major Non conformance, TTM requires immediate corrective action							
Not Reviewed		N/R		Item not reviewed or not applicable to the site inspected							
No	Inspection Measure							A	I	U	N/R
	Signs and Cones										
IM.1	Is the required visibility to the first sign achieved?										
IM.2	Are the signs the correct size for the Road Level?										
IM.3	Are the correct number of advance warning signs in place and are the distances between them correct?										
IM.4	Are the advance warning signs used correct for the type of traffic control / lane closure in place?										
IM.5	Is the first sign on all approaches WK 001, is the last sign WK 001 End?										
IM.6	Are the signs and supplementary plates authorised in Chapter 8 of the TSM and are they the correct design and reflectivity?										
IM.7	Are sign faces in good condition, clean and free from logos, stickers etc.?										
IM.8	If a VMS has been used is it located safely?										
IM.9	Are misleading permanent signs and road markings covered or removed?										
IM.10	Are cones the correct size for the Road Level?										
IM.11	Are cones in good condition clean, with reflective sleeve free from logos?										
IM.12	Are signs and cones correctly ballasted if required? (sandbags not permitted on cones, sandbags on sign frames to be at ground level)										
	Tapers										
IM.13	Are safe Taper positions used?										
IM.14	Is the Taper the correct length / taper rate?										
IM.15	Is the Taper cone spacing correct?										
IM.16	Is the cone spacing on the longitudinal cone run correct?										
IM.17	Is the lamp spacing on the taper and longitudinal cone run correct?										
	Safety Zones										
IM.18	Is the correct lateral safety zone in place?										
IM.19	Is the correct longitudinal Safety Zone in place?										
IM.20	Are safety zones free from works, plant, materials and operatives?										
IM.21	Is the lateral safety zone adequately delineated?										
	Works Area										
IM.22	Has allowance been made for the safe delivery of materials. Are safe access/exit points to the works area identified and adequately signed?										
IM.23	Are the minimum lane widths in compliance with Chapter 8 of the TSM?										
IM.24	Where required are lane widths sufficient to account for the turning movements of HGVs and large vehicles at entrances and junctions?										
IM.23	Are the minimum lane widths in compliance with Chapter 8 of the TSM?										

No	Inspection Measure	A	I	U	N/A
IM.24	Where required are lane widths sufficient to account for the turning movements of HGVs and large vehicles at entrances and junctions?				
IM.25	Have safe access points (vehicle and pedestrian) been maintained to residences and commercial premises?				
IM.25	Has safe access to public transport interfaces been maintained?				
	Barriers				
IM.26	If a temporary vehicle restraint barrier (TVRS) has been used has it the required set-back from the live lane?				
IM.27	Is the working width of the TVRS clear from works, plant, materials and operatives?				
IM.28	If used are vehicle barriers installed in accordance with the manufacturers guidance and ballasted or anchored if required?				
IM.29	traffic)				
	Vulnerable Road Users				
IM.30	Have the needs of vulnerable road users been taken into account?				
IM.31	Have Pedestrians been separated from works by an appropriate pedestrian barrier?				
IM.32	If a temporary footway is used is it appropriately delineated, in compliance with min width requirements and are ramps in place at kerbs?				
IM.33	Are signs in place to guide Pedestrians where their path is not obvious?				
IM.34	Are signs in place to warn motorists if a Temporary Pedestrian Crossing has been provided?				
IM.35	If cyclists share the running lane with traffic have appropriate lane widths been used? (3.5m - 4.0m should not be used)				
IM.36	If a mandatory cycle lane has been closed have appropriate signs been provided to warn cyclists and motorists?				
IM.37	If a temporary cycle lane has been provided is it appropriately delineated and in compliance with minimum width requirements?				
	Night time works / inspection				
IM.38	Are lamps in place where required and are they functioning correctly?				
IM.39	Are flashing lamps used where hazards are present or at prominent points in the TTM arrangement (eg first advance sign, taper start)?				
IM.40	Is the correct type of lighting arrangement in place? (eg. Steady State on tapers, reflectors permitted on Longitudinal cone run only etc.)?				
IM.41	If Stop and Go is in place are the locations of the Operators adequately lit?				
IM.42	Where used are Tower Flood lights located safely and such that they do not dazzle the road user?				
	Temporary Traffic Management Plan				
IM.43	Is there a documented TTMP onsite?				
IM.44	Is there a Site Specific Risk Assessment onsite?				
IM.45	Have all relevant operatives been inducted re the TTMP?				
IM.46	Is the installed layout in accordance with the layout in the TTMP?				
IM.47	Does the TTM layout comply with the W.I.D.E (warn, inform, direct, end) principle?				
IM.48	Are the correct TTM Works Classification and Road Type selected?				
IM.49	Is the traffic control method and/or lane closure type selected in accordance with Chapter 8 of the TSM?				
IM.50	Are the hazards onsite assessed in the TTMP and have the recommended control measures been implemented?				
IM.51	Does the TTMP account for all junctions and roads affected by the TTM? Has signage been provided on all approaches?				
IM.52	If a road closure is in place is there a properly signed diversion route?				
IM.53	Are safe system of works being used to install, modify, maintain and remove the TTM arrangement?				
IM.54	Does the TTMP account for changing site conditions and works phases?				
IM.55	Is there a documented procedure for checking the TTM once installed and at suitable intervals thereafter if the TTM is to remain in place for more than 12 hours?				
	Installation / Removal Methodologies				
IM.56	Are operatives wearing PPE in accordance with requirements for the Road Level?				
IM.57	Do operatives exit and unload vehicles from the non trafficked side?				

[illegible]



Outcome

- When Auditing and Inspecting safe systems it is useful to use the traffic light system
- Mirrors the risk assessment process used in Traffic Management Design
- We assess not just for non compliance with Chapter 8 but also what effect this non compliance will have on the safety of road workers and road users

Colour Coding	Definition
Acceptable	Safe system is in place.
Improvement Required	The systems in place require improvement
Unacceptable	The systems in place require immediate corrective action and /or improvement as they pose an immediate hazard



Reporting

Impact Number	Example Road Type	Recommended Minimum Time to Close Out		
		Category 1	Category 2	Category 3
1	National Route	24 hours	2 days	2 weeks
2	Regional Road	2 days	2 weeks	Notify
3	Local Primary Road	2 days	2 weeks	Notify
4	Local Secondary Road	2 weeks	Notify	Notify
5	Local Tertiary / Minor Road	2 weeks	Notify	Notify



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Thank You





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County and City Management Association

ROADS Services Training Group

LOCAL AUTHORITY ROADS CONFERENCE and EXHIBITION - 2023

Day 2 Session 2 Presentation 2-Ivor Heavey(1) & Michael
Whelehan(2)

Hodson Bay Hotel Athlone, May 2023



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County and City Management Association

LOCAL AUTHORITY ROADS CONFERENCE and EXHIBITION – 2023

Active Travel – Learning from early projects and advancing towards a collective design approach

Presentation Title

Ivor Heavey C.Eng MIEI
Senior Risk Advisor
IPB Insurance Clg



Investment

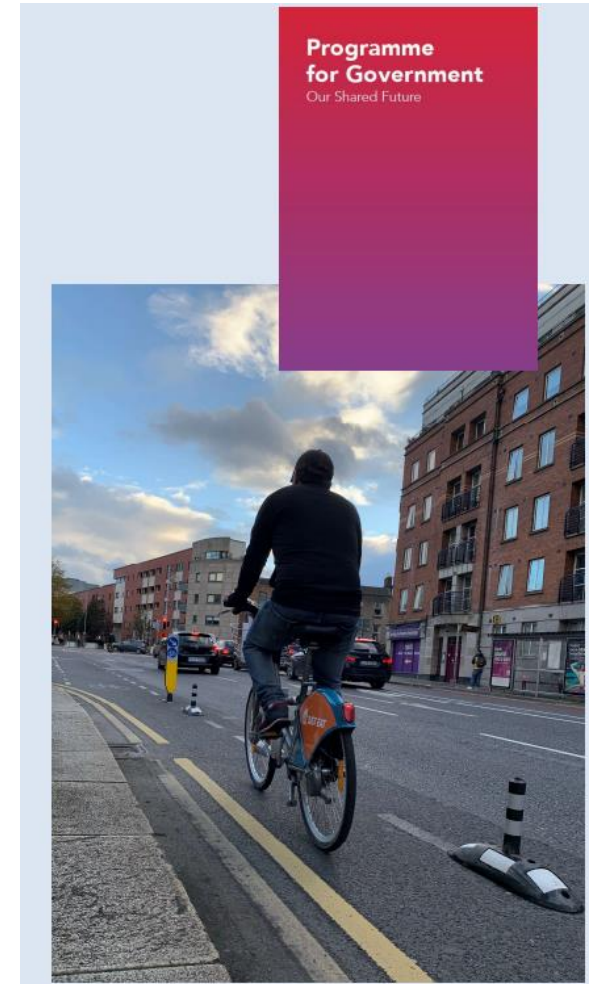
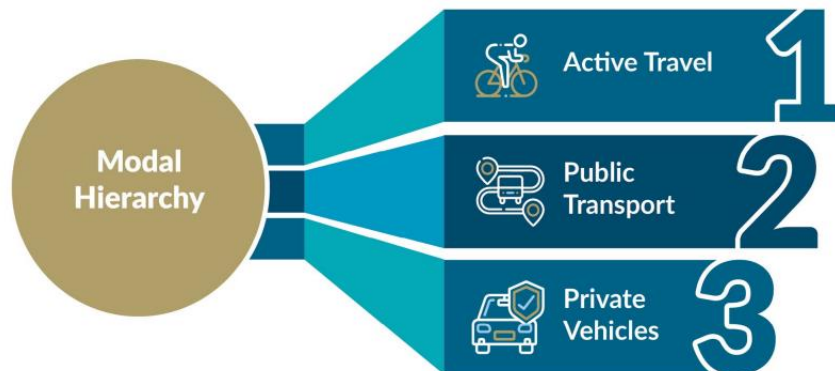
- Programme for Government sets a target of **€360 million per year for cycling and walking** over the period of the Government
- This summates to **€1.8 billion** over five years

2022

- NTA Active Travel Funding to Local Authorities - €289 M
- TII – Greenways Funding to Local Authorities - €54 M

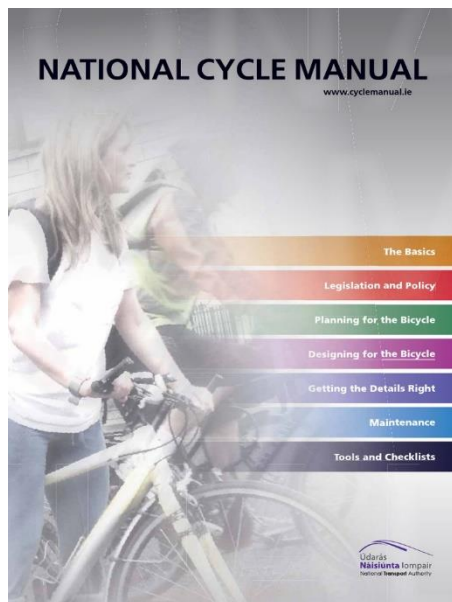
2023

- NTA Active Travel Funding to Local Authorities - €290 M
- TII – Greenways Funding to Local Authorities - €63 M





Guidance



SIST EN 17210:2021

EUROPEAN STANDARD **EN 17210**
NORME EUROPÉENNE
EUROPÄISCHE NORM
January 2021
ICS 91.040.01

English version
**Accessibility and usability of the built environment -
Functional requirements**

Barrierefreiheit und Nutzbarkeit der gebauten
Umgebung - Funktionale Anforderungen

This European Standard was approved by CEN on 30 November 2020.

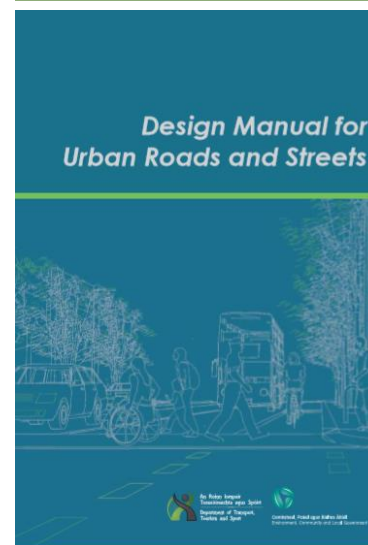
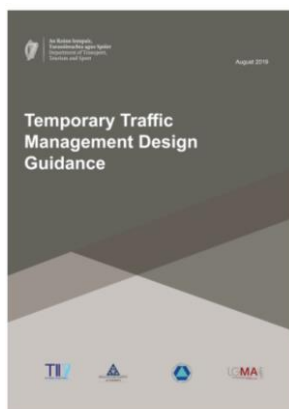
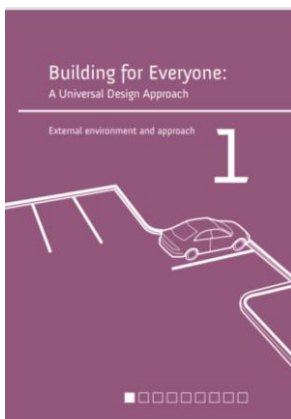
CEN and CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN and CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN and CENELEC members are the national standards bodies and national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



Traffic Management Guidelines



Design/Build Variance



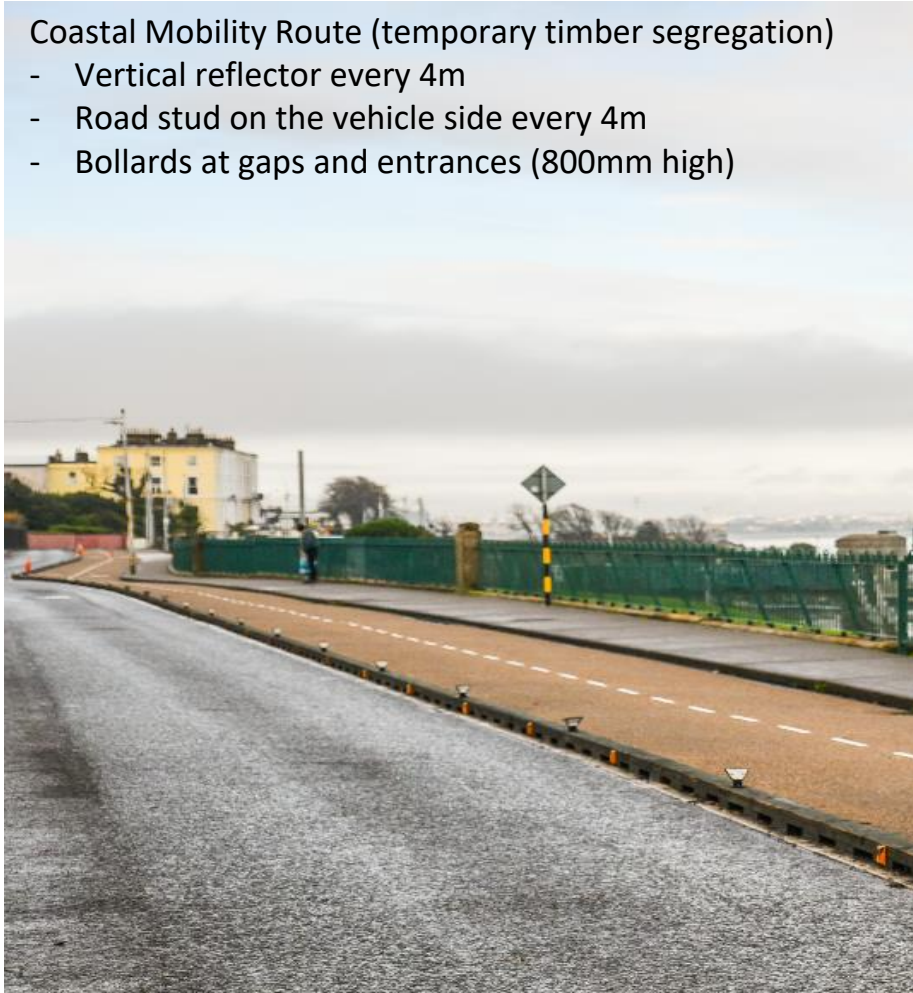
Surface Treatments



Segregation

Coastal Mobility Route (temporary timber segregation)

- Vertical reflector every 4m
- Road stud on the vehicle side every 4m
- Bollards at gaps and entrances (800mm high)



Benildus Avenue

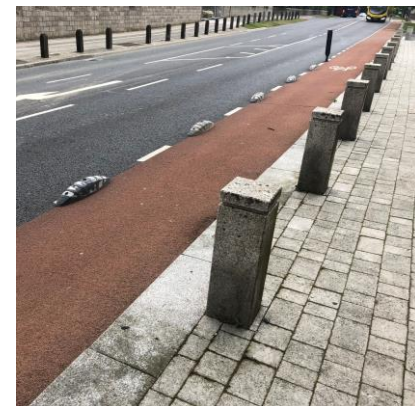
- Extruded concrete kerb (100mm wide)
- Bollard every 10m



Segregation



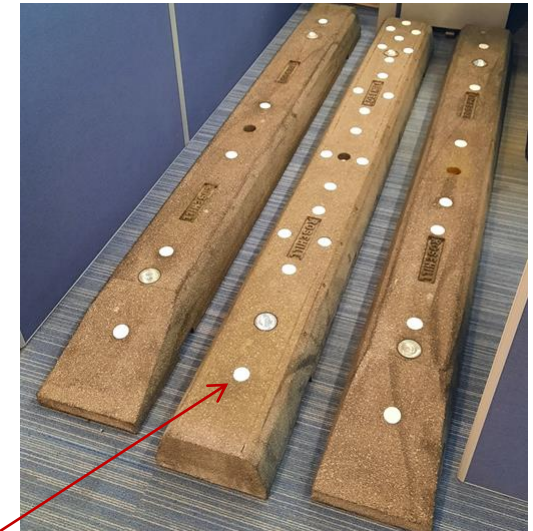
These are views of other lane segregators along the street. there are highlighting poles at each end of these segregators.



Segregation



These are views of other lane segregators along the street. there are highlighting poles at each end of these segregators.



Proposed Remediation measure
(Reflective inserts)

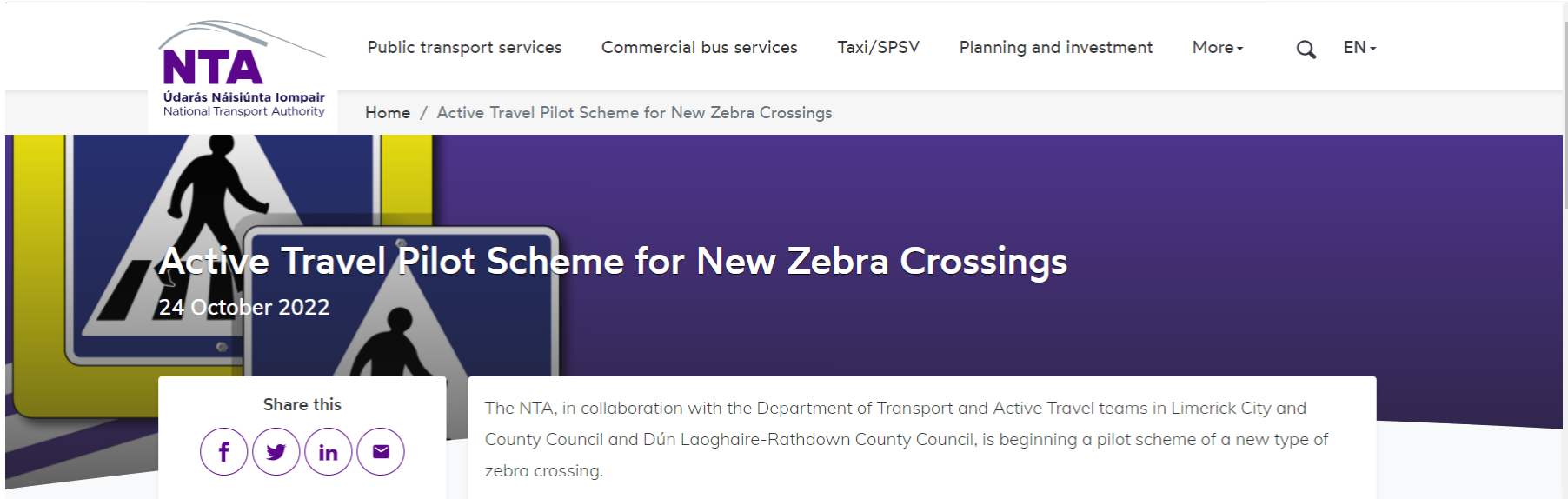
Segregation



Segregation



Trials



The screenshot shows the National Transport Authority (NTA) website. The header includes the NTA logo and navigation links: Public transport services, Commercial bus services, Taxi/SPSV, Planning and investment, and More. A search icon and language selector (EN) are also present. The main content area features a large purple banner with the title "Active Travel Pilot Scheme for New Zebra Crossings" and the date "24 October 2022". Below the banner, there is a "Share this" section with social media icons for Facebook, Twitter, LinkedIn, and Email. To the right of the share section, a text box states: "The NTA, in collaboration with the Department of Transport and Active Travel teams in Limerick City and County Council and Dún Laoghaire-Rathdown County Council, is beginning a pilot scheme of a new type of zebra crossing."

NTA
Údarás Náisiúnta Iompair
National Transport Authority

Public transport services Commercial bus services Taxi/SPSV Planning and investment More- Q EN-

Home / Active Travel Pilot Scheme for New Zebra Crossings

Active Travel Pilot Scheme for New Zebra Crossings

24 October 2022

Share this

f t in e

The NTA, in collaboration with the Department of Transport and Active Travel teams in Limerick City and County Council and Dún Laoghaire-Rathdown County Council, is beginning a pilot scheme of a new type of zebra crossing.

Anti-skid surfaces



Closing Remarks

- ▶ Sharing Knowledge & Lessons Learned
- ▶ Communication - What worked/does not work etc.
- ▶ Infrastructure consistency

Thank you for the opportunity
and for Listening

Standards
& Guidance



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County and City Management Association

ROADS Services Training Group

LOCAL AUTHORITY ROADS CONFERENCE and EXHIBITION - 2023

Day 2 Session 2 Presentation 2(2) Michael Whelehan

Hodson Bay Hotel Athlone, May 2023



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LOCAL AUTHORITY ROADS CONFERENCE and EXHIBITION – 2023

Roads – A Public Liability Snapshot

Michael Whelehan

Head of Claims

IPB Insurance CLG



History / Context:

- Between 1996 – 2002 injury claim legal costs increased by 43% *2002 MIAB Report*

The Government of the day took action:

- Solicitors (Amendment Act)
No Foal no Fee - Free Consultation
Responsible Advertising
- Civil Liability & Courts Act
Reduced Statute, S14, S25, S26 Offences
S29 Penalties: €100,000 – 10 Years – Both
- Personal Injuries Assessment Board Act
Solicitor and Legal Cost free
Book of Quantum – Standardising Values

- A number of issues arose

Challenge to Solicitor Free PIAB concept
90% solicitor involvement remains in PIAB
Prosecutions did not materialise
BoQ artificial base, often disregarded at Court hearing

- What happened in the next two decades?

Litigated claims continued to dominate the PL claims costs environment

- PIAB volumes expected to level off with economic slow down in 2008 continued to rise 24,700 to 34,000 by 2016
- A revised Book of Quantum in 2016 did not recalibrate, rather it restated prevailing awards
- Brexit vote precipitates a departing of market capacity
- *Capacity, claim frequency and increasing cost factors combine to impact Insurance cost and availability*



Recent History:

- Between 2016 – 2022
A new Govt and stakeholder focus

- Cost of Insurance Working Group & a slew of legislation.
- *The Personal Injuries Commission (4.4)*
- *The Central Banks National Claims Database*
- Judicial Council Act 2019
- *Personal Injuries Assessment Board Amendment Act*
- *Consumer Insurance Contracts Act*
- Personal Injuries Resolution Board Act
- Criminal Justice (Perjury and Related Offences) Act 2021
- Insurance Misc. Provisions Act 2022

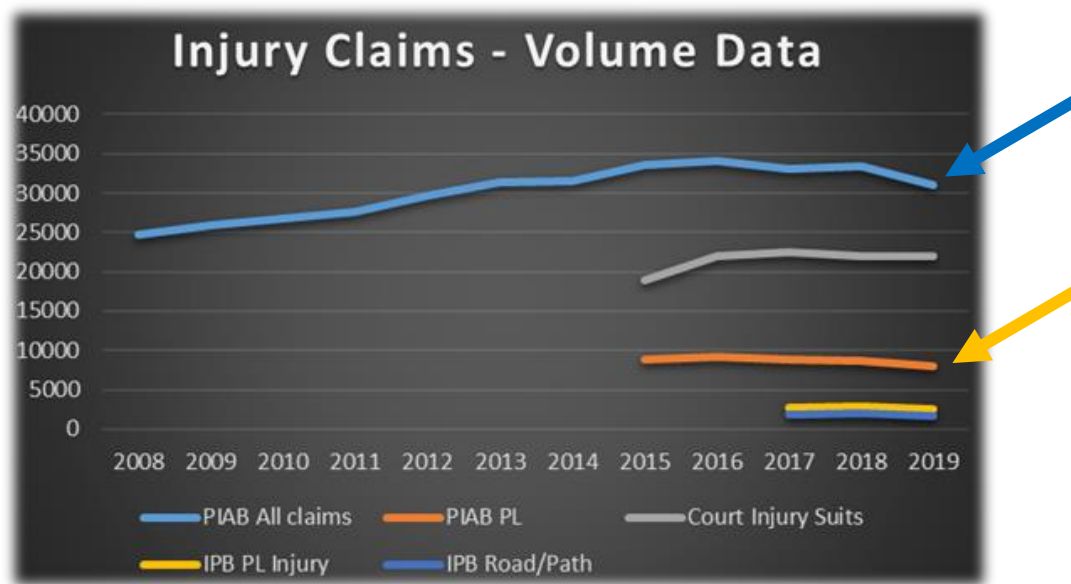
- ✓ **Unprecedented media, business, consumer and Govt focus**

And...

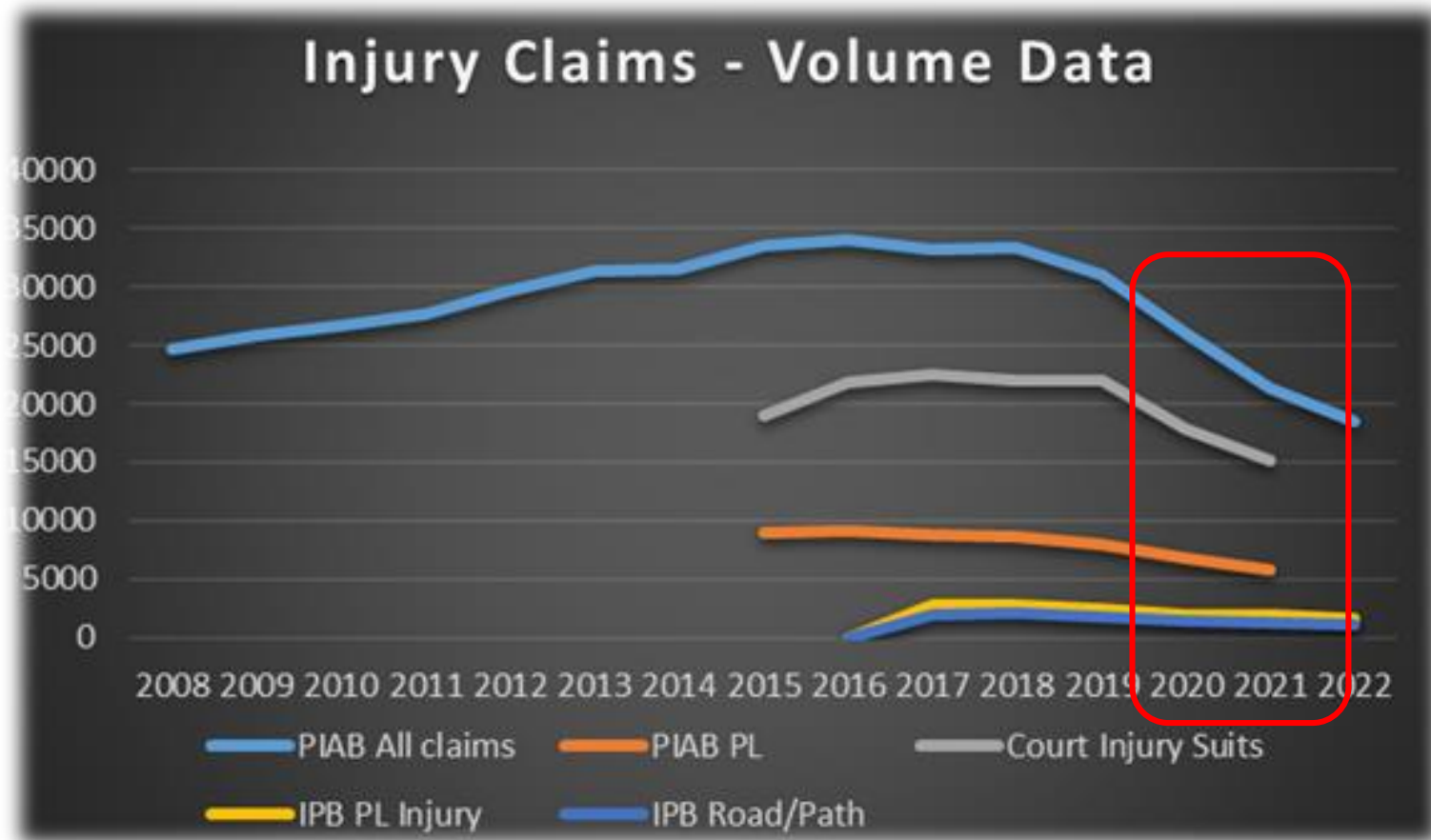
- ✓ **The Personal Injuries Guidelines in April 2021**

- Impact Assessment

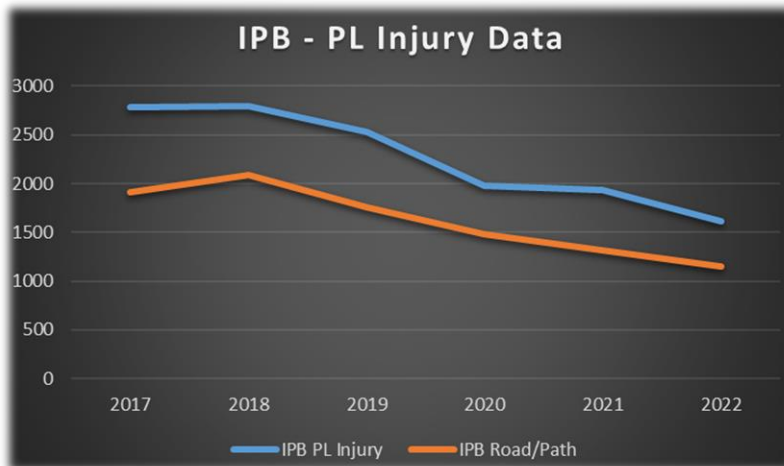
Obviously the economic and social restrictions had an impact over the covid years, but we can, to some degree, isolate that in terms of Public Liability trends:



In 2019, a moderation trend in claims volume was emerging

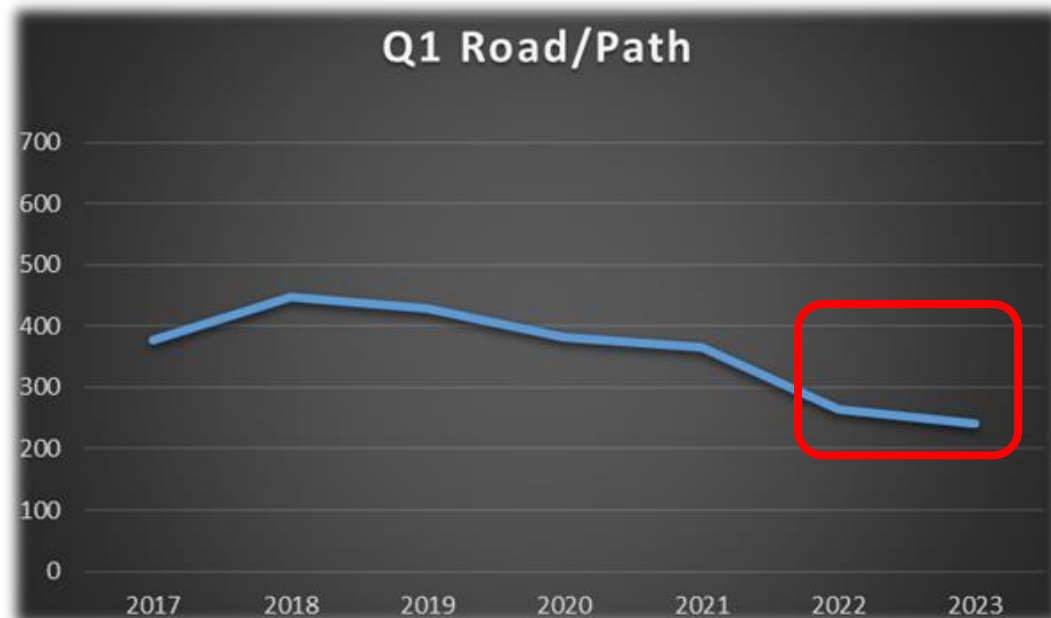


COVID restrictions on Economic and Social activity obviously had an impact in Q2-4 2020 & 2021. However, rather than bounce back, moderation continued in 2022



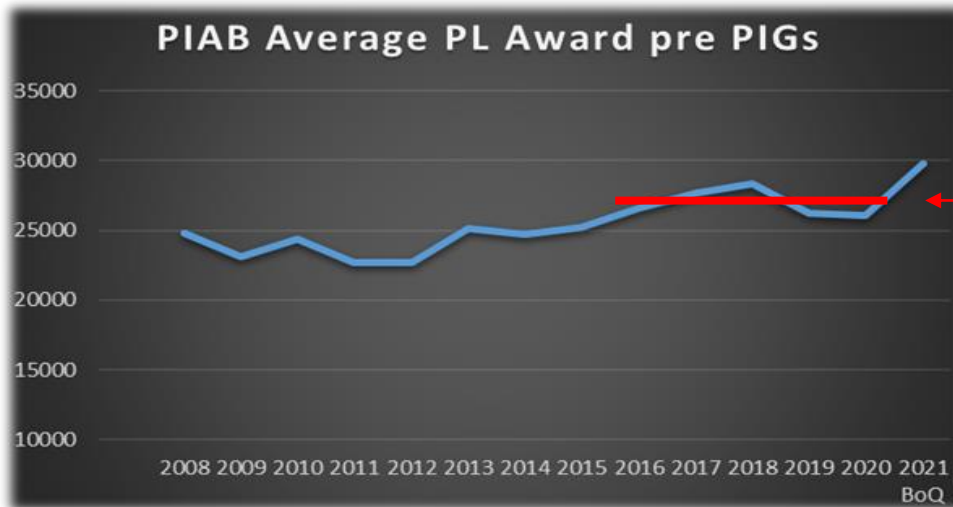
Road related claims seem to follow wider Public Liability injury claims patterns

A positive picture in terms of Volume / Frequency





Claims – Injury Cost:



- The average PL PIAB award for 5 years preceding PIGs (2016-20) was €27,000
- Longer term there was an upward trajectory and a sharp rise in Q1 immediately preceding the new Guidelines



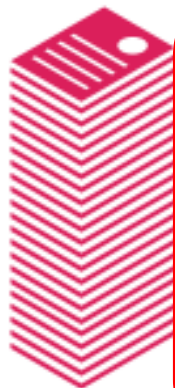
- Adopted by a small majority of the voting council in March 2021
- Greater structure, more instructive
- Reductions are significant for the most minor and unchanged or marginally increased for the most serious injury.
- **How do they compare?**



PIAB Personal Injuries Award Values January 1st – 30th June 2022



Bord Measúnaithe
Díobháilacha Pearsanta
*Personal Injuries
Assessment Board*



**Average award
under Guidelines**



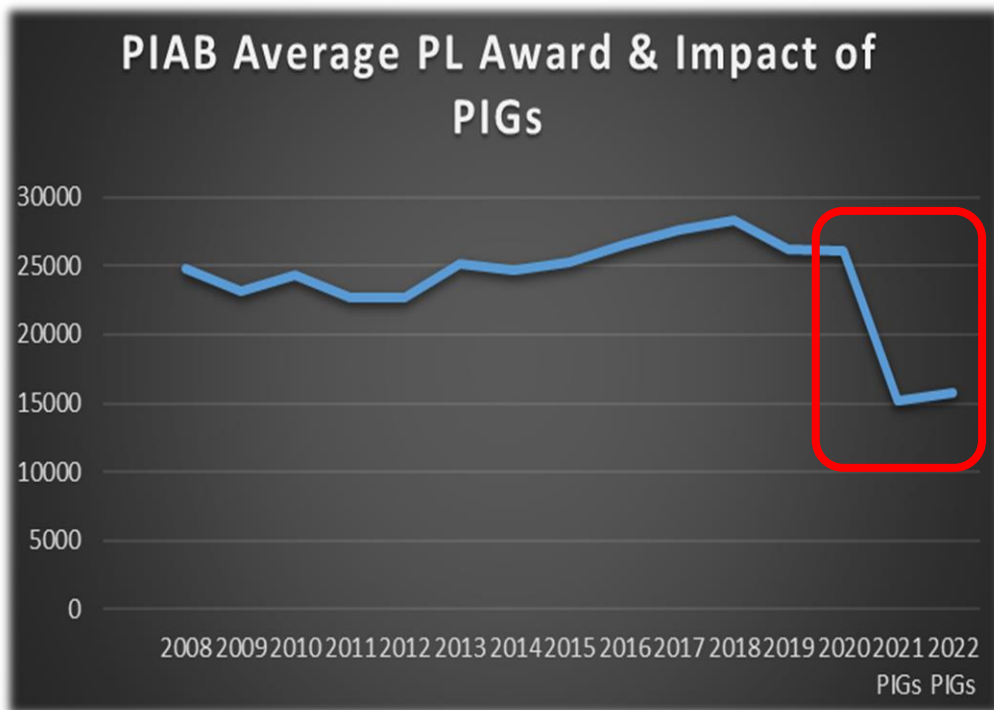
38%

Lower than average
2020 award under
Book of Quantum

**Value of
Average Award**

**% drop
in value**

	Motor Liability	€13,648	38%
	Public Liability	€15,813	39%
	Employer's Liability	€18,699	39%
Overall average		€14,786	38%



- **The PIAB 38% is not the full picture**
- Litigated claims where more serious injury is claimed will see lesser reductions than initial PIAB cases
- Litigated injury costs are only a proportion of the claim cost. Legal costs remain.
(Example: 50% x 38% = 19%)
- Increasing proportion of secondary and psych injury
- Judicial uplifts could undermine reductions.
- Supreme Court hearing of constitutional challenge to PIGs



- **Active travel**
- **Cycle paths**
- **Legalisation of scooters and personal transport devices**



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RSTG Conference 2023 10th May - Day 2

Closing Address

**Mr. Ken Spratt
Secretary General
Department Of Transport**



An Roinn Iompair
Department of Transport



Cumann Lucht Bainistíochta Contae agus Cathrach
County and City Management Association

Lunch is take away

On behalf of the RSTG Department of Transport and the CCMA Thank you all and Safe Home

The 2024 RSTG Conference is in the Sligo Radisson Hotel 14th & 15th May 2024