

# CONWAY

great people : great work

## SAFE SYSTEM APPROACH TO ROAD RISK



A presentation to the PRAISE Conference  
October 2018



# OUR ACTIVITIES

## Independent

Family-run Business

## Infrastructure Maintenance

New Build, Repair, Maintenance Highways

## Construction Materials

Manufacture of Highways

Maintenance Materials

## Recycling

Recovery for Re-use of  
Highways Materials

## Logistics

Distribution of Materials,  
Plant & Labour



# CHALLENGES

## **Safety**

For Contractors, Customers & The Public

## **Delivery**

That brings capability, capacity, resilience and surety of cost

## **Improved customer experience**

Through innovation in materials and working practices

## **Cost efficiencies**

In capital and lifetime expenditure





# THE STORY BEGINS....

## In February 2013 we received an e-mail from TfL

From: Freight [mailto:freight@tfl.gov.uk]  
 Sent: 01 February 2013 17:54  
 To: Central Services  
 Subject: Letter from Sir Peter Hendy

Dear Mr Conway

In 2011 there were 16 cyclist fatalities on London roads. TfL has commissioned research to examine whether the number of fatalities could be reduced. The research is now ready to be published.


Please find attached the full report, a summary report and a presentation.

We look forward to working with you through the next stages of the research.

Transport for London

**Transport for London**

Mr Michael Conway  
 FM Conway  
 Conway House  
 Rochester Way  
 Dartford  
 Kent  
 DA1 3QY



Transport for London  
 Windsor House  
 42-50 Victoria Street,  
 London SW1H 0TL  
 Phone: 020 7553 5000

1 February 2013

Dear Mr Conway,

**Construction logistics and the safety of cyclists**

As I'm sure you are aware, the Mayor has an ambition for London to be a world leading city for cycling and has set a target to increase cycling to 20% of all journeys in London by 2026. Over the past 10 years cycling on the Capital's roads has increased significantly. Despite this growth some important barriers remain to be overcome in order to improve concerns about cycling safety.

In 2011 there were 16 cyclist fatalities on London's roads as a result of collisions with construction vehicles. Transport for London (TfL) is interested in the safety, particularly that of more vulnerable road users such as cyclists. But the 2011 data highlight the need for further action to be taken to reduce the number of construction vehicles on London's roads are significant.

In 2012, TfL commissioned the Transport Research Laboratory (TRL) to investigate construction industry logistics and cycling safety, to identify the key vehicle specific reasons behind the construction industry's contribution to HGV/cyclist fatality statistics. The findings in the report and the Safety of Cyclists are wide ranging and cover a number of areas including driver training, vehicle routing and contractual practices. A number of recommendations which should be investigated by the relevant organisations.

A copy of the final research report is attached which identifies the key areas for organisations in order to carry forward the recommendations. It is the challenge of working across

**Transport Research Laboratory**  
 Creating the future of transport



**PUBLISHED PROJECT REPORT PPR639**

**Construction logistics and cyclist safety**  
 Summary report

**S Helman, E Delmonte, J Manning**



**Transport Research Laboratory**  
 Creating the future of transport





**PUBLISHED PROJECT REPORT PPR639**

**Construction logistics and cyclist safety**  
 Technical report

**E Delmonte, J Manning, S Helman, D Basacik, J Scoons, J Chappell, J Stannard, M Jones, I Knight**



## **Commissioned by Transport for London in 2012 to:**

- research construction industry logistics and cycling safety,
- consider reasons behind the construction industry's over representation in HGV/cyclist fatality statistics
- understand the relative risk represented by construction vehicles to cyclists, when compared with general haulage vehicles?
- Are there features of contractual arrangements, working practices, driver behaviour, or vehicle design (or combinations of these)

**Evidence suggested that construction vehicles are over-represented.**

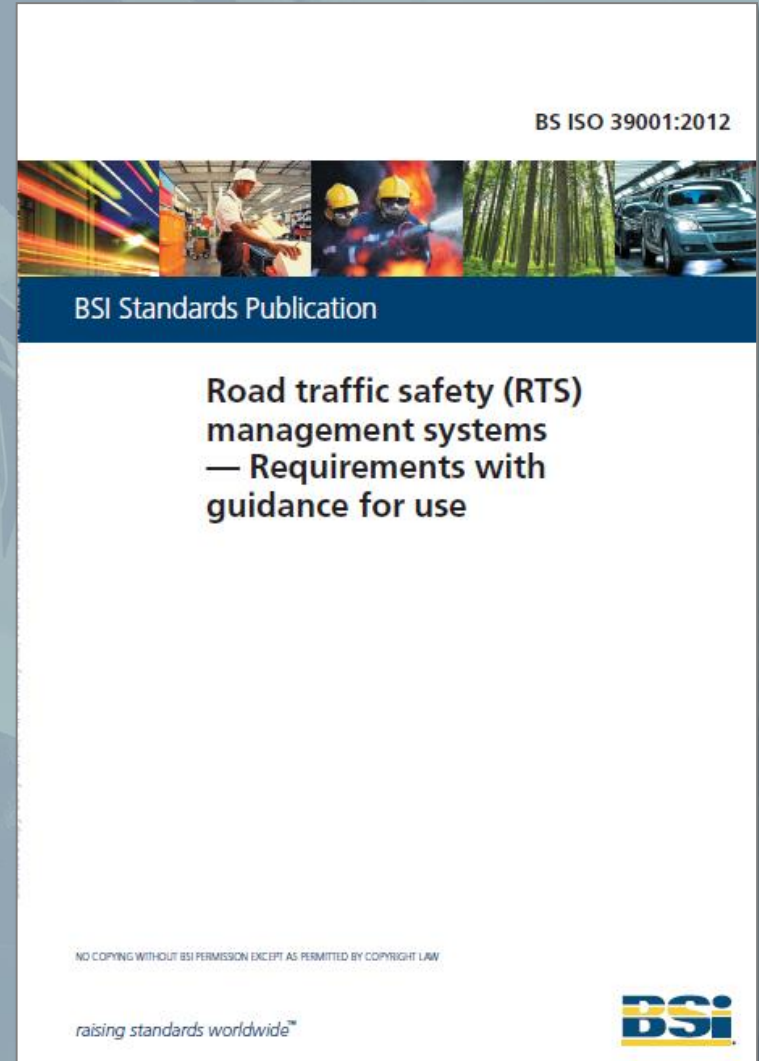
Report made: Eleven Findings, Twelve Associated Recommendations.

**Recommendation 2:**

**Adherence to a nationally recognised standard on work-related road safety (such as the ISO39001 standard on road traffic safety management) should be promoted**

## BS ISO 39001 - Road traffic safety management systems

- Internationally agreed industry standard
- reduction of death and serious injury in road traffic crashes.
- holistic approach to road-traffic safety to complement existing road traffic programmes and regulations.
- process approach encouraging continual improvement, proven by successful ISO standards such as ISO 9001 for quality management.
- structured framework for combating complacency and identifying continual improvements in best practice safety management.



## 7 Key Areas

- Context of the organisation –** external & internal issues relevant to the business that affect Road Traffic Safety
- Leadership –** Policy, Integration into business, Resources
- Planning –** Process to: Review; Evaluate Risks; Determine Improvements; Set Targets, Plan to achieve.
- Support –** Coordination, Training, Resources, Awareness, Communication, Documentation
- Operation –** The processes to achieve the plans
- Performance Evaluation –** Measuring how well we are doing
- Improvement –** Address Shortcomings, Opportunities for Improvement





# WHAT WE DID....

## Right Person:

- Licence Checks;
- Qualifications;
- Driver Assessments;
- Health (including eyesight checks);
- Training;
- Safety Culture;
- Professional Development





# WHAT WE DID....

## Right Vehicle:

Formal Maintenance Regime;  
 Daily Driver Checks;  
 Liaison with vehicle manufacturers;  
 Safety features;  
 Visibility Assessment

### FM Conway – Road Traffic Safety Management System

Goods Vehicle Driver Visibility Evaluation Tool

Vehicle Details: Make: \_\_\_\_\_ Model: \_\_\_\_\_ Registration: \_\_\_\_\_

Persons required: 1 of vehicle driver 1 of Chain person  
 Equipment required: Vehicle to be checked Marked grid area Standard engineers measuring staff This template and a pen/pencil

**METHODOLOGY**

VEHICLE DRIVER	CHAIN PERSON
Park vehicle in marked grid area. Plank along centre-line with front bumper on marked line.	
Set all mirrors and cameras to correct position for urban driving.	Stand in cell NF-4. Hold measuring staff on ground, vertical.
Record on grid record, lowest reading visible on staff.	
Record on grid record, lowest readable visible on staff.	Move to cell NF-3. Hold measuring staff on ground, vertical.
REPEAT PROCESS UNTIL EVERY CELL HAS BEEN MEASURED AND RECORDED.	

**TRANSPORT MANAGEMENT**

Plot and shade, on the toolkit grid, all areas that have zero visibility at 1.2metres height or less.

Consider all possible techniques for improving visibility in the shaded areas. Detail options in table below.

**VISIBILITY IMPROVEMENT ACTIONS**

Driver: \_\_\_\_\_  
 Chain Person: \_\_\_\_\_  
 Date of test: \_\_\_\_\_  
 Responsible Manager: \_\_\_\_\_  
 Date assessment finished: \_\_\_\_\_

VEHICLE/TRAILER NUMBER: 448107  
 DATE: \_\_\_\_\_  
 ODOMETER READING: \_\_\_\_\_  
 FREIGHT TRANSPORT ASSOCIATION

Re-order code 4234 VC40 NCR – DRIVER VEHICLE CHECK AND DEFECT REPORT

Company: \_\_\_\_\_ Driver: \_\_\_\_\_

**DAILY VEHICLE CHECK** – Items to be checked by driver before and during driving – Function – Damage – Cleanliness etc. ✓ = Serviceable X = Defect

Lamps/indicators/wiring/plugs	Tyres – inflation/damage/wear	Exhaust – condition/smoke/emission
Reflection/markers/warning devices	Wheels – condition/security	Tachograph/Speedometer – operation
Battery – security/condition	Body/guards/wings/spray suppression – damage	Speed limiter – operation
Mirrors – condition/security	Body/load – security/protection	Trailer coupling – operation/condition
Brakes – pressure/operation/locks	Number plates – condition/security/illumination	Trailer connections – condition/function/locks
Brakes – warning devices and instruments	Horn/wipers/washers – operation/condition	Trailer landing legs – condition/operation
Driving controls/steering – wear/operation	Engine oil/water/fuel – level/leaks	Ancillary equipment – Loading aids, etc.

DEFECT REPORT – Details of any faults noted should be entered below

Signature of driver: \_\_\_\_\_

**ACTION TAKEN**

Signature: \_\_\_\_\_ Position: \_\_\_\_\_ Date: \_\_\_\_\_

THIS FORM IS PRODUCED BY FREIGHT TRANSPORT ASSOCIATION AND IS NOT PART OF THE FTA VEHICLE INSPECTION SERVICE SYSTEM

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OUR COMPREHENSIVE  
 RETROFIT AND TRAINING  
 PROGRAMME FOR OUR  
 VEHICLES AND DRIVERS  
 ENSURES WE NOW OPERATE  
 ONE OF THE SAFEST FLEETS  
 ON LONDON'S ROADS.



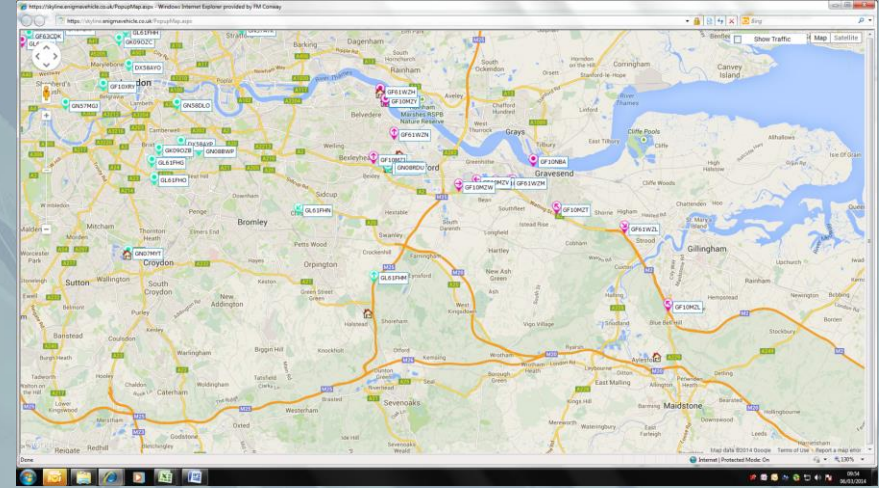
## RETROFIT FOR PURPOSE



# WHAT WE DID....

## Right Place:

Route Planning;  
Safe Access and Egress from sites;  
Safe Access and Egress from depots/yards



**CONWAY** TRAFFIC/PEDESTRIAN MANAGEMENT PROTOCOL – VISUAL STANDARD (ACCESS & EGRESS TO/FROM SITES)

Access and egress to and from a site is primarily the responsibility of the site management and operators. Safe access and egress should be achieved through careful planning of the site and activities, culminating in the development of a written Safe System of Work included within the site's method statement. The following is guidance and examples on how to achieve the required Safe System of accessing and egressing to and from a site.

**Road Closure – One Way Traffic System (Entry to Exit)**

- Deliveries to be pre-arranged with contact between delivery operator and site.
- Where driver to site contact, driver shall find a safe area away from the site to park prior to contacting site to inform of arrival.
- Vehicle to approach site with fully operational beacons on.
- Gates to be opened to permit access.
- Vehicle to be directed by site personnel to loading/unloading area.
- All reversing to be conducted under the control of a Reversing Assistant.
- Non-inducted drivers to be accompanied at all times.
- Where applicable, driver to return to cab or be positioned in a safe area during loading/unloading activities.
- Vehicle to exit site under control of site operators.

**Partial Lane Closure – Two Way Traffic System**

- Deliveries to be pre-arranged with contact between delivery operator and site.
- Where driver to site contact, driver shall find a safe area away from the site to park prior to contacting site to inform of arrival.
- Vehicle to approach site with fully operational beacons on and remain on during delivery.
- Vehicle to be directed by site personnel to loading/unloading area.
- All reversing to be conducted under the control of a Reversing Assistant.
- Non-inducted drivers to be accompanied at all times.
- Where applicable, driver to return to cab or be positioned in a safe area during loading/unloading activities.
- Vehicle to exit site under control of site operators.
- Appropriate signage to be maintained on site and installed by suitably qualified personnel at time of delivery. Type of signage dependent on traffic conditions.
- Refer to page 51 of Safety at Street Works and Road Works – A Code of Practice for determining appropriate traffic control method to be adopted where two-way traffic cannot be maintained during delivery. Options to be limited due to minimal time disruption to Give and Take, Priority and Stop/Go Boards.

**Surfacing – Road Closure with Resident Access and Egress Permitted**

- Deliveries to be pre-arranged with contact between delivery operator and site.
- Due to number of potential vehicles, a waiting area to be determined and advised.
- Where driver to site contact, driver shall find a safe area away from the site to park prior to contacting site to inform of arrival.
- Vehicle to approach site with fully operational beacons on and remain on during delivery/retrieval.
- Vehicle to be directed by site personnel to loading/unloading area.
- All reversing to be conducted under the control of a Reversing Assistant.
- Traffic Marshalls to be utilised to assist members of the public when accessing and egressing within the confinements of the site.
- Works to temporarily cease to permit access and egress from the road closure by members of the public.
- Access and egress from driveways to be maintained where possible and full co-operation to be given to members of the public.

**FM Conway – Road Traffic Safety Management System**

Depot Details: Name: Chalfont Address: Chalklands Road, Dagenham, Gravesham, Chalfont, Kent, TN14 7ED

Depot Access and Egress Visibility Evaluation Tool

Persons required: 1 of Vehicle driver, 1 of Chain person. Equipment required: Vehicle Camera and Notepad

**Other Road Users - Line of Sight Score**

Perfect	2	3	4	5	6	7	8	9	No Place
				4					

**Exiting Vehicle - Line of Sight Score**

Perfect	2	3	4	5	6	7	8	9	No Place

**Overall Visibility Score (possible total)**

Other Road Users Line of Sight Score + Exiting Vehicle Line of Sight Score = 10 + 4 = 14

**Road Speed Limit Score**

<30 mph	Strong	1	2	3	4

**RISK MATRIX**

Other Road Users Line of Sight Score	Road Speed Limit Score				
	<30 mph	30-40 mph	40-50 mph	50-60 mph	>60 mph
1	Low	Low	Low	Low	5
2	Low	Low	Low	4	10
3	Low	Low	Medium	5	12
4	Low	Medium	Medium	6	15
5	Low	Medium	High	7	20

**Map of Location**

Assessment By: DC, DC, MG  
Date of Assessment: 30/5/13  
Comments/Observations:

OTHER VEHICLES HAVE TO CHECK OUT WITH THE CHAINMAN STAYING TO HAVE CLEAR VISIBILITY OF THE ROAD.

VEHICLES EXITING THE SITE ALSO HAVE TO USE BOTH LANE TO BE ABLE TO EXIT THE SITE SAFELY.

Reviewed By: SH  
Date of Review: 05/6/13

**TRANSPORT MANAGEMENT**

Risk Ranking: 12

**VISIBILITY IMPROVEMENT ACTIONS**

Write and produce specific instructions which should be issued to drivers informing them of higher risks and necessary precautions that should be taken when entering and exiting the Chalfont depot.

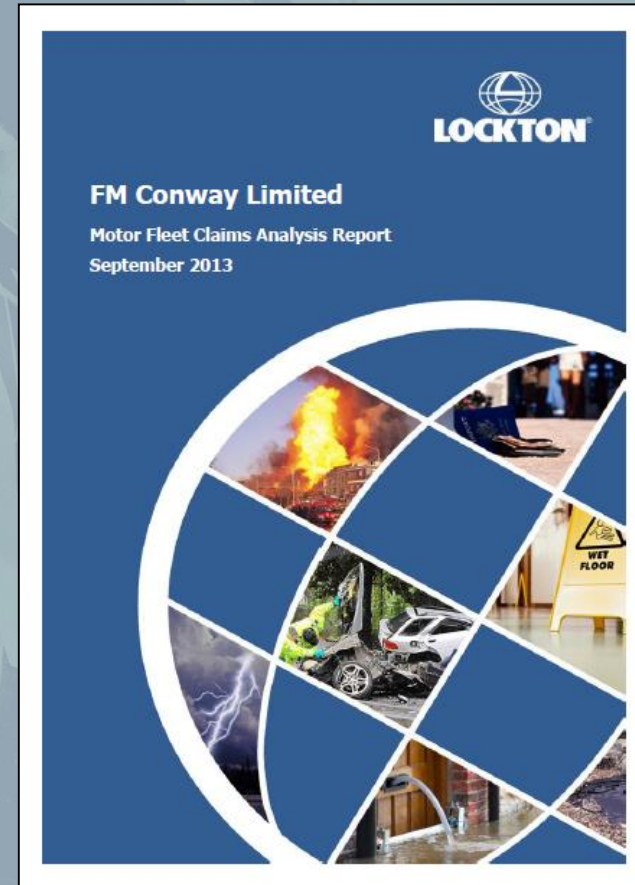
The possibility of considering warning signs to be placed outside the depot in road to warn on coming vehicles that there is a concealed entrance with possible vehicles exiting as below:

Investigation to be put into place to whether trimming or removing the tree at the near side exit of Chalfont depot.



## Cost Benefits:

- **Insurance Premiums**  
(saving of £56k in year 1 – 10%)
- **Repair & Maintenance Costs**  
(15% overall reduction despite 5% increase in routine costs)
- **Improved Fuel Efficiency**  
(Average MPG, per vehicle up by 3.8)





# WHAT'S IN IT FOR US?

## Societal Benefits

Improvement of safety on the road traffic network

.... Really!!





# WHAT'S IN IT FOR US?

## Pride:

- Brake Fleet Safety Awards 2017 - Dr Will Murray Award for Analysis and Action
- Transport for London Supplier Awards in 2017 for the Best Safety Initiative
- MPA Health and Safety Awards 2015 - TfL Reducing Occupational Road Risk Trophy





# ... SINCE THEN... NEW INITIATIVES

Recognising Professional Drivers' Skills and Knowledge



Improved Nearside Visibility Windows



Low Entry / Hi-visibility vehicles "Econics"



Managing Driver Distraction from Mobile Phones





## Advanced telematics systems

Currently undertaking trial of “Lightfoot” system

... offering:

- fuel savings of up to 20% by educating the driver on how to drive the vehicle in the manner in which it was engineered.
- reduce driver-fault collision and incident rates by up to 60%.
- Lower wear and tear costs and reduced vehicle downtime through improved driver behaviour.
- Reduced carbon emissions by reducing aggressive acceleration, unnecessary idling and inappropriate gear usage.



**Head of UK Delegation to ISO/TC241**  
**Member of Working Group WG5 (ISO 39002)**



**Chair of BSI Technical Committee RTS/1**  
**“Road Traffic Safety Management Systems”**

*(UK Shadow Committee responsible for the UK input to ISO/TC241 for the development of International Standard on road traffic safety management systems)*



**Brighton and Hove City Council**  
**- 1<sup>st</sup> Municipal Authority in UK to achieve ISO 39001**

The background of the slide is a faded, light blue image of a train. The train is moving from left to right, and its side is covered in large, stylized text. The word "CONWAY" is visible in large, bold letters. Below it, the slogan "great people : great work" is written in a smaller, lowercase font. The train is set against a backdrop of a city street with trees and a street lamp.

**Any Questions?**