Proposed Changes to Legislation Relating to Cycling

REPORT – FINAL

Client: Department of Transport

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1.	**EXECUTIVE SUMMARY**
1.	**Introduction**
	This report responds to a brief by the Department of Transport regarding proposed changes to legislation relating to cycling. It investigates the implications that the proposed changes may have on road safety. The work was carried out as a mainly desk based exercise drawing on existing studies and reports. Chapter 2 examines the proposal to remove the requirement on cyclists to use cycle tracks where they are provided. Chapter 3 examines the proposal to grant access to cyclists to contra-flow bus lanes and bus only streets Chapter 4 focuses on clarifying the position of cyclists overtaking to the left of traffic. Appendix I lists all of the acronyms and abbreviations used in the text of this report. Note that this report does not take into account the content of the just-released draft version of the revised Cycle Guidelines Manual.
1.2	**Proposal #1 - Removal of requirement on cyclists to use cycle tracks where they are provided**
	It is unclear what the original rationale was for the introduction of the regulation requiring cyclists to use cycle tracks where they are provided. It is virtually certain that no risk assessment was carried out prior to the introduction of the original regulation. The risk assessment has found many instances of lessening the risk for cyclists as a result of the removal of the mandatory use requirement. In a small number of instances, there is the theoretical possibility of increased risk. On balance, overall cyclist safety is likely to be enhanced by the removal of the mandatory use requirement. However it suggested that the relevant control measures (i.e. interventions such as education, a review of infrastructure and the adoption of signage etc.) be applied in an appropriately timely manner.
1.3	**Proposal #2 - Grant of access to cyclists to contra-flow bus lanes and bus only streets**
	This research found no justification on safety grounds for a universal prohibition on the use of bus-only streets or contra-flow bus lanes by cyclists. Nevertheless, there may be specific cases where cyclists should be excluded from bus only streets, with-flow and contra-flow bus lanes. Each case should be assessed individually rather than being covered by a universal regulation. It is recommended that the universal prohibition on the use of bus-only streets and contra-flow bus lanes by cyclists is removed, subject to certain recommendations on the timing of the change.

1.4	**Proposal #3 – Clarification of position of cyclists overtaking to the left of traffic**
	It is recommended that the existing regulation be amended so as to allow overtaking by cyclists on the left except where the vehicle to be overtaken has signalled an intention to turn to the left and there is a reasonable expectation that the vehicle in which the driver has signalled an intention to turn to the left will execute a movement to the left before the cycle overtakes the vehicle. Plan for how the changes in legislation will be communicated to drivers and cyclists through appropriate road safety education. This must include appropriate cyclist education of the risks associated with overtaking on the left and particularly in regard to where there are heavy goods vehicles in the traffic mix.

2.	**PROPOSAL #1 - REMOVAL OF REQUIREMENT ON CYCLISTS TO USE CYCLE TRACKS WHERE THEY ARE PROVIDED**
2.1	**INTRODUCTION**
2.1.1	**Chapter Overview** Section 2.2 comments on the rationale behind the introduction of the regulation requiring cyclists to use cycle tracks; Section 2.3 provides a summary of the problems associated with the existing use of cycle tracks under the regulation; Section 2.4 provides a short comparison with other European countries; Section 2.5 analyses the impact on road safety from the implementation of the proposal Section 2.6 summarizes the conclusions drawn based on the analysis; Section 2.7 makes a recommendation in regard to the proposal;
2.1.2	**Brief** Section 1 of the departmental project brief reads as follows: *Article 14 of the Road Traffic (Traffic and Parking) Regulations 1997 (as substituted by article 6 of the Road Traffic (Traffic and Parking) (Amendment) Regulations 1998 (S.I. No. 274 of 1998), sets out the position in relation to cycle tracks. Sub-article (3) of substituted article 14 places a requirement on cyclists to remain on a cycle track bounded by a broken white line (except where changing direction or where there's a bus at a bus stop or where a vehicle is parked for the purposes of loading or unloading) and a blanket requirement to remain on a cycle track bounded by a continuous white line.* *The current requirements do not accord with commonsense in many situations – for example where cars are illegally parked in cycle tracks, where cars use cycle tracks as part of the roadway in heavy traffic, where the surface of cycle tracks is so badly maintained as to render their use dangerous to cyclists, where poor design of cycle tracks render it impossible or dangerous for cyclists to proceed straight ahead in traffic or take road positions to enable them to safely make right hand turns.* *It might be noted that it is not intended to alter the current position in relation to cyclists remaining on cycle tracks, which are provided as part of footpaths. It is considered that this aspect is adequately catered for in article 13 of the 1997 Regulations, which prohibits vehicles (including bikes) being driven on footways.* *In proposing this legal change, it is considered that the day-to-day behaviour of the majority of cyclists will be unaffected. This view is based on anecdotal evidence that cyclists currently leave cycles lanes, albeit illegally, where it is necessary and safe to do so. It also accords with international research in this matter.*

2.1.3	**Clarification to Brief** The following clarifications to the brief were noted in the proposal dated Tue 24th November 2009. • The title of DoT proposal 1 "Removal of current requirement on cyclists to use cycle lanes where they are provided" is read to mean "Removal of current requirement on cyclists to use cycle tracks where they are provided" - since the proposal will not only the remove requirement on cyclists to remain on a cycle track where it is provided on a roadway but will also remove the requirement on a cyclist to cycle on an off-road cycle track rather than use the roadway. • Re: The third paragraph of proposal 1 of the project brief reads: *It might be noted that it is not intended to alter the current position in relation to cyclists remaining on cycle tracks, which are provided as part of footpaths. It is considered that this aspect is adequately catered for in article 13 of the 1997 Regulations, which prohibits vehicles (including bikes) being driven on footways.* This paragraph is understood to mean that the Department does not propose to permit cyclists using "footpath type" off road cycle tracks to leave such tracks and to cycle on the portion of the adjoining footpaths that are reserved for pedestrians.

2.2	EXISTING REGULATION
2.2.1	**Rationale behind Introduction of the Regulations** As far as can be ascertained, the Department of Transport is virtually certain that no risk assessments were carried out on the existing regulations prior to their introduction. There is no explanation in the National Manual on the Provision of Cycle Facilities (DTO, 1997) as to why the regulation was introduced. Therefore it is unclear what the rationale was behind the introduction of the regulation to require cyclists to use cycle tracks. It can only be assumed that the regulation was introduced while working on the assumption that cycle tracks were inherently safer and more convenient for cyclists than the rest of the carriageway and that there was, therefore, a logic in compelling cyclists to use them as this was assumed to result in safety benefits.
2.2.2	**Definitions** It should be noted that in the existing regulations - ROAD TRAFFIC (SIGNS) REGULATIONS, 1997: *"cycle track" means a part of a road including part of a footway or part of a roadway which is reserved for the use of pedal cycles and from which all mechanically propelled vehicles other than mechanically propelled wheelchairs are prohibited from entering except for the purpose of access;* There are sometimes similar, but sometimes quite clear differences between the problems which arise from the mandatory use of (i) cycle tracks which are part of the footway, as against (ii) cycle tracks which are part of the roadway. In the table that follows below in Section 2.3, the differentiation is noted in the first column from the left.
2.2.3	**Current Cyclist Behaviour** There are wide variations between cyclists in terms of both experience and confidence in mixing with motorised traffic. Generally speaking, cyclists will use cycle tracks or stretches of these tracks, *where they enhance momentum and where they do not pose additional risks.* However, due to a number of factors including poor design, inadequate maintenance and inconsiderate behaviour of other road users (e.g. illegal parking), virtually all cyclists will, on occasion, either be forced off or will choose to depart from the designated cycle track. In considering the outcome of this risk assessment, it is suggested that the effect of the proposed legislative change be considered in the context of cyclists' *de facto* behaviour patterns, rather than in assuming that cyclists obey the current requirement to use cycle tracks where they are provided.

2.2.4	**Removal of Legal Uncertainty** Under the 1961 Road Traffic Act, a "pedal cycle" is a defined as "a vehicle" and "'driving' includes managing and controlling and, in relation to a bicycle or tricycle, riding"[1]. In Irish law, a cyclist is therefore held to have a right to make lawful use of the public roads. The secondary legislation appears to remove the entitlement of the cyclist to use the main carriageway, irrespective of the quality of the cycle track. This sends out the message that the bicycle does not belong on the roadway. Under the SI, cyclists are perceived by some road users to be demoted from being normal road users to being "pedestrians on wheels" – and, through the use of cycle tracks, are required to give way to motor vehicles at side roads and other junctions – whereas if they were on the main carriageway, they would not.

[1] www.irishstatutebook.ie/1961/en/act/pub/0024/index.html

2.3	EXISTING PROBLEMS AND IMPLICATIONS OF INTRODUCING THE NEW REGULATION		
Item **[Track Type]**	**Problem**	**Risks / References / Further Details** ***[Implication of newly proposed regulation on existing problem]***	**Example**
2.3.1 [Footway type and roadway type]	**Increased complexity and number of junctions** The provision of some cycle tracks – and their mandatory use - can make manoeuvres on the approach to or at junctions more complex. The requirement to use a poorly designed cycle track removes from the cyclist, the ability to use his/her judgement on where best to position him/herself in response to the prevailing traffic conditions. Furthermore the provision of (especially footway type) cycle tracks along roads with numerous side roads increases the number of junctions that a cyclist meets, as shown in the Doughiska Road example here.	Franklin (p.192 of 2007 edition) states that "road side cycle tracks....increase the complexity of every junction, for cyclists and motorists alike. For example, a three-way junction becomes a five-way one when a cycle track is added. Making a junction more complicated invariably increases the likelihood of someone making a mistake." ***[Under the newly proposed regulation, cyclists will be permitted to choose to be able to avoid a cycle track at or near a junction which, as currently configured, may increase the likelihood of a collision. Many cyclists currently avoid them but do so illegally]***	 Cycle track approaching a junction on the Upper Churchtown Road, looking Westwards  Doughiska Road, Galway

2.3.2 [Footway type and roadway type – but especially the former]	**Collisions at junctions** Most cyclist collisions occur at junctions and are as a result of turning or crossing movements. Roadside cycle tracks usually increase the number of junctions that a cyclist meets, for they are interrupted by every driveway as well as every road. Frankin (p. 191-192 of 2007 edition). Franklin goes on to explain that "Observing other traffic [while on a bicycle on a road side cycle track] can be very difficult too, for it is necessary to look for danger through an angle of up to 270 degrees. This requires much movement of the head, which takes time, and the only way to be really sure that it is safe in all directions will be to stop.....It is particularly difficult from a roadside cycle track to know whether a vehicle on the parallel road will turn into a side road that you are approaching."	The study by Jensen et al (2007) and research by John Franklin (available at www.cyclecraft.co.uk/digest/research.html) suggests that cycle tracks can have a negative effect on road safety. Bearing in mind variations in design and standards of provision of such infrastructure, a reasonable conclusion to draw is that poorly designed cycle tracks are hazardous and requiring cyclists to use all tracks for their complete length in all circumstances is unsafe. Furthermore the requirement to use cycle tracks makes the provision of cycle training difficult since one of the fundamental concepts underpinning cycle training is correct road positioning – and the adoption of the primary road position[2] when passing side roads when a cycle track is present is either difficult (in the case of roadway cycle tracks) or impossible (in the case of footway cycle tracks). ***[Under the newly proposed regulation, cyclists will be permitted to choose to be able to avoid a cycle track at or near a junction which, as currently configured, may increase the likelihood of a collision. Many cyclists currently avoid them but do so illegally]***	 In the above example (Goatstown, Dublin 14), the footway type cycle track continues as a roadway cycle track but cyclists, some of whom may be proceeding straight ahead, are led to position themselves on the inside of left turning vehicles on a left-only general traffic lane.  Thomas St., Dublin 8. Cyclists proceeding (Eastbound) straight ahead are on the inside of left turning vehicles.

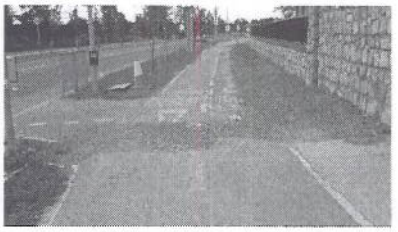
[2] The primary riding position will: maximise the chances of you being seen and of your speed being appreciated; improve your own visibility of conditions ahead; provide an enhanced zone of safety should a driver cut across your path; help to dissuade any following driver from overtaking and then turning left. From Chapter 8 "Everyday Movements" of Cycle Craft (Franklin, J., 2007)

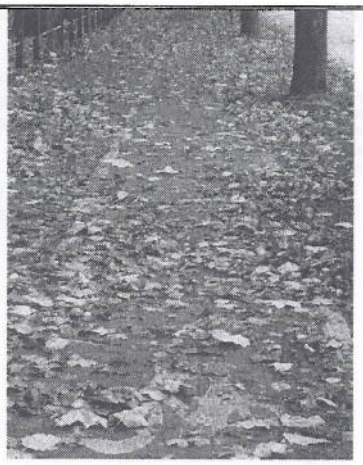
2.3.3 [Roadway type]	**Passing distances** The presence of cycle lanes may encourage vehicles to drive more closely to the cyclist than if there were no cycle lanes in place. This may be because the driver of the vehicle takes his/her cue from the road marking rather than judging what the most appropriate passing distance of the cyclist should be.	The most recent peer reviewed paper to explore this issue was by Dr. John Parkin of Bolton University (2008). He concluded that "in circumstances where a cycle lane is insufficiently wide for the speed of general motor traffic, drivers provide greater passing distances to cyclists on stretches of road without cycle lanes. Cycle lanes therefore do not appear to provide greater space for cyclists in all conditions." This underlines the importance of adequate cycle track widths and the wisdom of permitting cyclists, where warranted, to occupy a position on the roadway not designated as a cycle track. ***[Under the newly proposed regulation, cyclists will be permitted to cycle outside of the roadway cycle track in order (for example) to be able to adopt the primary road position when appropriate. This is what many cyclists currently do but do so illegally]***	 Narrow cycle lane – Botanic Road, Glasnevin, Dublin (understood to have been widened since photo taken).

2.3.4 [Footway type and roadway type]	**Vehicle speeds** Where a footway or roadway cycle track is provided, the driving speeds of motorised traffic in the adjacent lanes increase (p77-78 of CROW, 1993). Combined with 2.3.3 above, this means that cyclists may be passed at higher speeds and more closely where a cycle lane is provided. Therefore where weaving movements occur, they occur in a higher speed environment than if no track were provided.	The risk of fatality increases sharply as motor vehicle speeds increase[3] – as may the perception of danger. This provides an argument for either providing a sufficiently wide cycle track with appropriate treatment at junctions (if this is possible) or else not providing a cycle track at all. ***[The newly proposed regulation will not have a direct impact of vehicle speeds – this must be addressed using other instruments.]***	
2.3.5 [Roadway type]	**Vehicle encroachment into tracks** Vehicles often encroach into roadway cycle tracks, especially where the cycle track lies *within* a general traffic lane or bus lane. This is observable on a daily basis. Cyclists may have a false sense of security while in the cycle lane in that they may not expect motor vehicles to encroach into the cycle lane (as they would expect them to do in a general traffic lane).	The encroachment of motor vehicles into spaces where cyclists may not expect them to be may increase the likelihood of collision between modes. ***[The newly proposed regulation is unlikely to have an impact on vehicle encroachment into existing tracks. This must be addressed using other instruments.]***	 Cycle track within a left-only general traffic lane. (Grand Parade, Dublin). Cyclists proceeding straight ahead may not expect to have cars encroaching into the track in order to turn left in front of them.

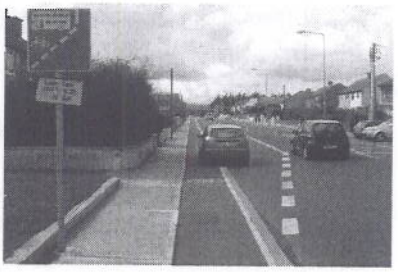
[3] Chapter 1 (Introduction) of the Road Safety Strategy 2007-2012 (Road Safety Authority, 2007) states:
"At 60 km/h, 9 out of 10 pedestrians will be killed in an impact with a vehicle. At 50 km/h, 5 out of 10 pedestrians will be killed in an impact with a vehicle. At 30 km/h 1 out of 10 pedestrians will be killed in an impact with a vehicle."
It is assumed that a similar relationship holds for impacts between motor vehicles and cyclists at the range of speeds of impact.

2.3.6 [Roadway type]	**Cycle tracks within "door zone"** Some cycle tracks run directly alongside parking lanes / parking bays without a dividing verge of minimum width of 0.80m. The purpose of this dividing verge is to protect cyclists from the danger of opening car doors (p. 36 DTO, 1997).	There is an increased risk of collision with car doors opening if the cyclist remains within the cycle track. Of the 92 collisions involving a pedal cyclist fatality in London in the period 2001-2006, there were four collisions where the occupant of the other vehicle opened a door into the pedal cyclist's path (p. 13-14 of TRL, 2009). Therefore the fear by cyclists of collisions with car doors is legitimate. It is also more difficult for cyclists to avoid pedestrians emerging from between parked cars when there is no safety buffer. ***[The newly proposed regulation will (obviously) have no impact on altering the physical proximity of tracks to parked vehicles, but will permit cyclists not to cycle within the "door zone" – the zone within which opening car doors can collide with cyclists – when a cycle track lies too close to parked vehicles].***	 Cycle facility alongside parking bays but without safety buffer (Wexford Street, Dublin)
2.3.7 [Footway type]	**Vertical alignment of tracks** The vertical alignment of some cycle tracks is poor. This may arise from poor design (e.g. driveway aprons / tall kerb up-stands) or from the growth of roots of trees through the surface or for other reasons. Poor vertical alignment impacts particularly on bicycles with narrow tyres or small wheels.	In extreme cases poor vertical alignment on a cycle track may destabilize the cyclist causing a collision. ***[Under the newly proposed regulation, cyclists will be permitted to choose to be able to avoid those tracks with poor vertical alignment which (as is) may increase the likelihood of collision. This is what they currently do (but do so illegally).]***	See footway type cycle track Leopardstown Road, Co. Dublin as an example. (No photo available at time of submission of this report.)

2.3.8 [Footway type and roadway type]	**Road Maintenance** The quality of maintenance of some cycle tracks is poor. This can arise from incomplete reinstatement of the carriageway following work on sub-surface services, or from wear and tear.	In extreme cases poor surface quality on a cycle track may destabilize the cyclist causing a collision. ***[Under the newly proposed regulations cyclists will be permitted to choose to be able to avoid those tracks which have surface discontinuities which (as is) may increase the likelihood of collision.]***	 Clonskeagh Road, Goatstown, Dublin 14.  Wyckham Way, Ballinteer, Dublin 14.

2.3.9 [Both footway type and roadway type but especially the former.]	**Drainage, Sweeping and Gritting** The quality of surface cleaning of some cycle tracks is poor. This is particularly noticeable during the autumn months as leaves collect on cycle tracks. During cold and frosty / icy winter weather conditions, the main roadways are often cleared of ice and snow (either through the movement of motor vehicles or though the gritting of the roads by Local Authorities), but footway type cycle tracks more often than not remain icy and slippy. Therefore there is likely to be a higher risk of incident associated with the use of the cycle track rather than the main roadway.	In extreme cases poor drainage, sweeping or gritting provision may render the cycle track unsafe. ***[Under the new regulation, cyclists will be permitted to choose to be able to avoid those tracks which are not drained, swept or gritted to an adequate degree. This is what many cyclists currently do (but do so illegally).]***	 Fairview, Dublin  Icy cycle track and ice-free main carriageway – Donnybrook, Dublin (January 2010)

2.3.10 [Both footway type and roadway type but especially the former]	**Incoherence and Illegibility** Some cycle tracks are incoherent. I.e. they are discontinuous - they stop and start abruptly at side roads and have other interruptions. Others are illegible. I.e. it is unclear how the cyclist is meant to proceed along a desired route.	There may be an increased risk arising from leading cyclists on and off footway type cycle tracks especially when it is unclear how the cyclist should proceed. ***[Under the new regulation, cyclists will be permitted to choose to be able to avoid those tracks which are incoherent or illegible. This is what many cyclists currently do (but do so illegally).]***	  North Quays, Dublin

2.3.11 [Footway type and roadway type but especially the former]	**Mixing of Cyclists of Varying Speeds** Cyclists of varying fitness levels and cycling speeds use cycle tracks. However on narrow cycle tracks, cyclists need to leave the track in order to pass slower cyclists. In the case of large groups of (leisure or racing cyclists) it is not practicable to use footway type cycle tracks except in a long single file.	In the case of off-road cycle tracks, this means that in order for a fast-moving cyclist to pass out a slow-moving cyclist, one or other cyclist will need to move across onto either a grass margin or onto the adjacent footpath (in order to avoid) veering off the kerb onto the main carriageway. This manoeuvre may endanger either pedestrians using the adjacent footway or cyclists dropping unpredictably onto the roadway. ***[Under the newly proposed regulation, cyclists will be permitted to choose to be able to avoid those tracks which are unsuitable for mixing cyclists of varying speeds. This is what they currently do (but do so illegally).]***	
2.3.12 [Footway type and roadway type]	**Parking on cycle tracks** Illegal parking is a problem on some cycle tracks.	Where cars are parked on cycle tracks, cyclists will need to leave the track. ***[Under the newly proposed regulation, cyclists will be permitted to be able to avoid those tracks which have cars parked on them illegally. This is what they currently must do (but, incongruously, must do so illegally).]***	 Nutgrove Avenue, Churchtown

2.4	**INTERNATIONAL COMPARISONS**
2.4.1	This section provides a brief summary of international comparisons in relation to the mandatory use of cycle facilities.
2.4.2	**United Kingdom** In the United Kingdom there is no legal obligation to use cycle facilities (Franklin 2007, p189) Franklin's (2007) book Cyclecraft is a standard text for cyclists who are taking part in cycle training. Chapter 13 deals with cycle tracks. The relative advantages and disadvantages of cycle tracks are discussed as are the risks. Franklin states (2007, page 188-189): *Most facilities are not safer, particularly for a similar level of mobility, and there is evidence that some facilities are both hazardous in themselves and lead to unsafe cycling practices.* And, *To the skilled cyclist, cycle facilities are more likely to offer advantages in terms of convenience rather than safety.*
2.4.3	**Spain** There is no legal requirement to use cycle tracks in Spain (Reglamento General de Circulación 2003, 2006)
2.4.4	**Germany** The European Road Safety Observatory (2006) report "Pedestrians and Cyclists" reviews traffic regulations for cyclists in European countries in Section 5.2.3: *As in some Scandinavian countries, cycle tracks in Germany can be made compulsory only if they meet appropriate minimum quality standard, otherwise cyclists may choose not to use cycle tracks.*

2.4.5	**The Netherlands** In the Netherlands there is a differentiation between cycle lane and segregated cycle track, both in terminology (versus the Irish position) and legal status. A facility which is completely / physically segregated from the main carriageway is called a "solitary track". Minimum standards of design are advised in the Dutch (CROW, 2007) manual. The Local Authority proposes and decides whether a facility is good enough to give it legal status by implementing the correct road traffic sign and bicycle logo. In essence, the requirement to use (some) cycle tracks is dependent on a decision by the local authority which is informed by design standards and the attainment of these. These include the width of (segregated) cycle tracks in order to be able to sweep and clean the tracks of debris, leaves and snow. The width of the concrete/tarmac machinery also is a decision making factor.

2.5	ANALYSIS OF IMPACT ON ROAD SAFETY FROM IMPLEMENTING THE PROPOSAL
2.5.1	Should the requirement on cyclists to use the cycle tracks be revoked it follows on that cyclists will then have the choice: (i) to use an existing cycle track or (ii) to not use it. It is important to note that it is predicted that the day-to-day behaviour of the majority of cyclists will be unaffected by the change in legislation.
2.5.2	It will have been noted – as per the italisized blue text within the square brackets in the third column from the left in 2.3 above – that the introduction of the new regulation will remove many (but not all) of existing problems experienced by cyclists in regard to cycle tracks. The recommended control measures that will be required to be implemented in the context of the regulation change are listed below. All of these (bar the first one) are already captured in the National Cycle Policy Framework: (i) Public education programme required to explain to all road users that cyclists are now legally permitted not to use cycle tracks and why; (ii) Audit to be carried of infrastructure as per Policy2.5 of 2009 NCPF; (iii) Driver Education; (iv) Cyclist Education; (v) Enforcement of existing regulations for motor vehicle drivers regarding dangerous overtaking, speeding, encroaching into mandatory cycle tracks (iv) Implementation of Objective 5 of NCPF re road maintenance;
2.5.3	There may be a small number of specific locations where cyclists have been excluded from the main carriageway for sound reasons. E.g. on a long underpass or through a tunnel *where a cycle track has been provided as an alternative route.* It is predicted that the removal of the mandatory use regulation is not going to change the behaviour of the majority of cyclists who will, in situations of perceived severe risk, follow the safer alternative route. Notwithstanding this, cyclists may theoretically be exposed to increased risks in such locations. Therefore a mechanism to exclude cyclists from certain locations should be considered in tandem with an audit of existing situations where there may have been specific reasons for excluding cyclists.

2.6	**CONCLUSIONS**
2.6.1	This research found no justification on safety grounds for *a universal requirement by cyclists to use cycle tracks where they are provided.* In fact, there are many safety problems with existing cycle tracks which are compounded by the requirement to use them.
2.6.2	It is predicted that the day-to-day behaviour of the majority of cyclists will be unaffected by the change in legislation.
2.6.3	The safety benefits of the change in legislation are, principally, that: - it clarifies the legal position with regard to cyclists' use of the public roads; - it permits cyclists to be able to avoid cycle facilities which are poorly designed, poorly constructed and poorly maintained. It is of particular value at side roads and other junctions at which the use of the cycle track may increase the likelihood of collision with (mainly) left turning vehicles; - Cyclists will still be permitted to use those facilities which they wish to use / find most convenient;
2.6.4	Nevertheless, there may be a relatively small number of specific locations where cyclists have been excluded from the main carriageway using the mandatory use requirement for good reasons. E.g. on a long underpass or through a tunnel or on a route used by heavy volumes of heavy goods vehicles *where a cycle track has been provided as an alternative route.* It would appear likely that cyclists would continue to use the alternative, safer, route, in such circumstances, irrespective of the mandatory use requirement.
2.6.5	The risk assessment has found many instances of lessening the risk for cyclists as a result of the removal of the mandatory use requirement. In a small number of instances, there is the theoretical possibility of increased risk. On balance, overall cyclist safety is likely be enhanced by the removal of the mandatory use requirement. However it suggested that the relevant control measures (i.e. interventions such as education, a review of infrastructure and the adoption of signage etc.) be applied in an appropriately timely manner.

2.7	RECOMMENDATIONS
2.7.1	It is recommended that the regulation requiring cyclists to use cycle tracks is revoked.
2.7.2	Appropriately timed control measures will need to be implemented in support of the revocation include: - The running of a public education programme to explain to all road users that cyclists are legally permitted *not to use* cycle tracks and the reasons why. This is to address the real issue of drivers abusing (verbally etc.) cyclists not using cycle tracks; - The auditing of infrastructure as per Policy 2.5 of the NCPF; - Driver Education; - Cyclist Education; - Enforcement of existing regulations for motor vehicle drivers regarding dangerous overtaking, speeding, encroaching into cycle tracks bounded by continuous white lines; - Implementation of Objective 5 of NCPF re road maintenance;
2.7.3	Further steps include: - development of clear criteria for the mandatory exclusion of cyclists from particular locations; - clarification of existing regulations regarding the exclusion of cyclists from particular roads or parts of roads; - identification of locations at which it may be appropriate to exclude cyclists; The process of revoking the existing mandatory use instrument and taking these further steps will need be managed appropriately.

3.	**Proposal #2 - Grant of Access to Cyclists to Contra-Flow Bus Lanes and Bus Only Streets**
3.1	**BRIEF**
3.1.1	Article 32 of the Road Traffic (Traffic and Parking) Regulations 1997 sets out the position regarding bus lanes and right of access to them. Sub-article (2) makes it clear that cyclists may enter bus-lanes while sub-articles (3) and (4) prohibit the use of bicycles in contra-flow bus lanes and bus only streets. It is now proposed to permit bicycles to enter contra flow bus lanes and bus only streets in the same manner as they have a right of access to bus lanes. Anecdotal evidence suggests that some cyclists currently and illegally use contra-flow bus lanes and bus-only streets. In international terms, it is practice in some other European countries to allow contra flow cycling not only in bus lanes but on many one-way streets. Notwithstanding this, it is considered that this proposal requires consideration from a safety viewpoint.
3.2	**EXISTING REGULATIONS**
3.2.1	When discussing the change of regulations regarding the use of contra-flow bus lanes and bus-only streets the brief also mentions European countries where cyclists are permitted to cycle both ways on one-way streets. It is worth noting that the important difference between contra-flow bus lanes and bus-only streets on the one hand, and contra-flow cycling on one-way streets on the other hand, is that in the former cases the bus lanes/streets have been designed specifically to be used by buses in particular directions only. The key question is: Is there any difference between permitting cyclists to use bus lanes in general, and permitting them to use contra-flow bus lanes and bus-only streets?
3.2.2	The existing regulations and regulatory signs include the following (RSA 2008 p 70): - A sign for a with-flow bus lane on left (near-side) with cyclists - A sign for a with-flow bus lane on right (off-side) with cyclists - A sign for a contra-flow bus lane without cyclists The regulations do not include the following: - A sign for a with-flow bus lane on the left or right without cyclists - A sign for a contra-flow bus lane with cyclists
3.2.3	**Existing Justification** It is unclear what the original reasoning was behind the existing prohibition of cycling in contra-flow bus lanes and bus-only streets. As far as can be ascertained, the Department of Transport is virtually certain that no risk assessments were carried out on the existing

	regulations when they were being introduced. The current Dublin Transportation Office Cycle Manual (DTO 1997) is no longer considered best-practice and is currently being revised by the National Transport Authority. On page 138, Section 5.2.3 discusses "Shared use of the bus lane" but states that "This does not apply to contra-flow bus lanes." On page 141, it discusses cycle-tracks alongside contra-flow bus lanes: *5.2.4 Cycle track alongside contra-flow bus lane* *Where to apply* *While cyclists are not permitted to use contra-flow bus lanes, it is permitted to provide a cycle track in parallel with them.* *Dimensions* *The width of a bus lane should preferably be 4.50m. The minimum width is 4.25m.* *General comment* *If a width of 4.50m is available an on-road cycle track of 1.50m should be implemented (see § 5.2.2).* These two statements – from pages 138 and 141 of the DTO manual appear to be contradictory. If it is prohibited to cycle in a contra-flow bus lane, it is unclear how a cycle lane within the bus lane can be recommended. The manual does not provide reasons for the prohibition or for their recommendation that cycle-lanes are provided within wider contra-flow bus lanes.

3.2.4	**With-flow bus lanes** With-flow bus lanes are typically provided to provide priority to buses on congested roads. If the road is congested then the bus in the bus lane will not generally be able to move out of the bus lane into the general vehicle lane to overtake cyclists or other vehicles. This divides bus lanes into two categories: - Bus lanes which are wide enough for buses to safely overtake cyclists within the bus lane. - Bus lanes which are narrow and where buses cannot overtake cyclists within the bus lane. There is a category in between where buses can overtake cyclists in a medium width bus lane either by "straddling" the line dividing the bus lane and the general vehicle lane, or by passing very close to the cyclist. While this latter case is illegal, the risks associated with the likely types of illegal use of roads should be considered in assessing the risks of a design or a change to the regulations. When traffic is not congested, buses in a with-flow bus lane can safely overtake cyclists by moving into the adjacent general vehicle lane, overtaking and moving back to the bus lane. In a contra-flow bus lane this is not permissible as buses cannot move out of the bus lane into the general vehicle lane in the opposite direction.
3.2.5	In summary, this report works on the basis that cyclists are excluded from contra-flow bus lanes and one-way streets because, in the cases where the bus lanes are too narrow to permit safe overtaking within the bus lane, some delay may be caused to cyclists and buses that cannot overtake each other. This justification appears to be based on performance not safety and will be analysed and discussed in more detail later in this report

3.3	**PROBLEMS WITH THE EXISTING REGULATION**		
3.3.1	The columns below sets out some of the problems associated the existing regulation, risks caused by the problems and possible actions. These will be explored in the literature review and analysis.		
	Problem	**Risks**	**Possible Actions**
3.3.2	The regulation does not match the existing Cycle Manual (DTO 1997) as noted in Section 3.2.3 above.	This discrepancy might lead to design errors or misunderstandings of how the bus lanes should be used.	Revise the Cycle Manual which is currently being revised in any case. Revise the regulations.
3.3.3	The regulation does not match existing practice as described in the case study in Appendix II.	The admission of cyclists to the existing bus lanes may not have been adequately considered. The signage of the existing bus lanes does not comply with the regulations on signage. All road users could have potential problems understanding and using the bus lanes.	Revise the regulations and audit the bus lanes against the new regulations and carry out remedial works. Audit the existing bus lanes against the existing regulations and carry out remedial works.
3.3.4	The existing regulation is universal, excluding cyclists from all contra-flow bus lanes and bus-only streets.	There may be no reason to exclude cyclists from many contra-flow bus lanes and bus-only streets leading to unnecessary delay to cyclists. The need to send cyclists on detours may complicate designs increasing the risks to cyclists.	Maintain the current regulations Revise the regulations and allow cyclists to use some or all contra-flow bus lanes and bus-only streets.
3.3.5	Non-standard signage which has no basis in the regulations is being used to attempt to exclude cyclists from with-flow bus lanes. See the example in case study in Appendix II.	All road users could have potential problems understanding and using the bus lanes due to the non-standard signage. Cyclists are permitted to use all with-flow bus lanes but there may be risks present in those where the non-standard signage has been provided.	Revise the regulations and audit the bus lanes against the new regulations and carry out remedial works. Audit the existing bus lanes against the existing regulations and carry out remedial works.

3.3.6	The current regulations are not well understood. The logic for allowing cyclists to use all with-flow bus lanes while excluding them from all contra-flow bus lanes and bus-only streets is not clear – the evidence for which is the failure of designers to provide signage which complies with the regulations.	If road users do not understand the regulations or the signage provided then they may be exposed to excessive risk.	Revise the regulations Set out clearly the justification for the existing regulations and implement a programme of education and enforcement.
3.3.7	The lack of understanding with regard to the meaning of the regulation makes education and enforcement more difficult.	Poor education and enforcement can lead to a reduction in compliance with the regulations. This lack of compliance creates additional risks in addition to the risks caused by the general misunderstanding of the infrastructure.	Revise the regulations Clearly set out the justification for the existing regulations and implement a programme of education and enforcement.

3.4	**REVIEW OF INTERNATIONAL PRACTICE**
3.4.1	**Overview** This section reviews international practice in Belgium, the United Kingdom, France and Germany. Note that many Irish buses are double-decker buses which are wider than typical European single-decker buses. This should be considered when assessing the appropriate widths of bus lanes. Reference should also me made to the minimum acceptable overtaking distance in different countries. In Ireland Policy 2.9 of the National Cycle Policy Framework (Department of Transport 2009) states: We *will also ensure that designs will provide for a safe passing distance of 1.5m between motorised vehicles and bicycles.* In Belgium the *minimum* legal passing distance is 1 m (IBSR 2007 p43) These factors combined might suggest that a minimum of 4.5 to 5.0 m should be allowed for wide bus/cycle lanes compared to the 4.3 m minimum that is permitted in Belgium.
	BELGIUM
3.4.2	**Belgium - Introduction** The Belgian Document "Cyclists and Public Transport" (IBSR 2007) is an example of international best practice in the design of bus/cycle lanes. It divides bus/cycle lanes into narrow and wide lanes as follows (IBSR 2007 p 28). For lanes between 3.25 m and 4.3 m wide it recommends making the lanes narrower or wider. - Narrow bus/cycle lanes with a maximum width of 3.25 m with no overtaking within the bus/cycle lane. - Wide bus/cycle lanes with a minimum width of 4.3 m and recommended width of 4.5 m, where overtaking can safely take place within the lane. In Belgium many with-flow bus/cycle lanes have a kerb or other physical barrier separating them from the general traffic lane. For this reason the document does not distinguish between these closed with-flow bus/cycle lanes and contra-flow bus/cycle lanes, which are closed by definition.

3.4.3	**Belgium - Closed narrow bus lanes** Section 5.2.1 (IBSR 2007) discusses "Closed Bus Lanes" including contra-flow bus lanes. It notes the following for narrow closed bus lanes: - Cyclists and buses will remain behind each other and there will be no "leap-frogging"; - Because of the above it should only be used for short lengths, particularly for contra-flow bus lanes. - They reduce the freedom of movement of cyclists to change direction. - The provision of a narrow bus lane is not necessarily linked to whether or not cyclists are permitted.
3.4.4	**Belgium - Bus-only streets** On bus-only streets it says the following and includes a sketch (IBSR 2007 section 5.2.4, translated from French by a colleague of this author). Bus-Only Streets A bus-only street or a two-way bus lane is a street with a bus lane in both directions. No additional width is necessary to admit cyclists. Unless another bus is coming in the opposite direction, a bus can easily overtake a cyclist. A "shared lane road marking" can be marked in both directions. The recommended width is 6.1 m (6.5 m between kerbs)
3.4.5	**Belgium - Contra-flow bus lanes** Section 5.3.5 (IBSR 2007) deals specifically with contra-flow bus lanes. It notes the following: In the case of contra-flow bus lanes, it is preferable to admit cyclists to the bus lane, rather than [admit] contra-flow [cycling] in the general vehicle lane where the cyclist risks finding him or herself wedged between the general traffic and the bus traffic. Open contra-flow bus lanes should be avoided: the risk of head-on collisions is too high. With regard to the first point, note that contra-flow cycling is permitted by default in one way streets in Belgium, unless noted otherwise.

3.4.6	**Belgium - Other sections** Section 5.4 (IBSR 2007) deals with education of bus drivers and cyclists Section 5.5 (IBSR 2007) sets out a methodology for calculation of the time loss for cyclists and buses in narrow closed bus lanes. Examples are given from a study in London where two different 100 m long sections of bus/cycle lane were surveyed for two hours. Only 7.5 % of buses were delayed by cyclists even though the numbers of both were high. Section 5.5 (IBSR 2007) includes a literature review of best practice.
	UNITED KINGDOM
3.4.7	**London cycling design manual** Section 4.3 of Transport for London's (2009) Cycling Design Manual deals with bus lanes. Practice in London is similar to Belgium where bus lanes should be either narrow or wide but not in-between. Note the following: *The preferred situation is a 4.5m wide (or greater) bus lane with a 1.5m wide cycle lane marked within it. The cycle lane marking may be omitted on links where there are frequent bus stops and side-road turnings. Cycle lanes should not be marked within bus lanes less than 4.5m wide. (TfL 2009 Section 4.3.4)* *Where a 4.5m wide bus lane is not feasible, combined bus/cycle lanes of 4.0m may be acceptable where bus flows are moderate. If taxi flows are high, bus lane widths of 4.0m or greater are recommended to enable overtaking. (TfL 2009 Section 4.3.5)* *Bus lane widths of between 3.2m and 3.9 m should not normally be provided as they leave insufficient room for buses to overtake cyclists or cyclists to overtake queuing or stopped buses within the lane. (TfL 2009 Section 4.3.8)* *If bus lane flows are low (up to 20 buses/hour or 100 buses + taxis / hour) then bus lanes up to 3.2m wide may be satisfactory. This solution will not be acceptable on a significant uphill gradient or where there are high levels of infringement by unauthorised vehicles. In these situations an alternative should be considered. (TfL 2009 Section 4.3.9)* *Where bus lanes are physically segregated from other traffic (e.g. by kerbed upstands) they should normally be 4.5m wide to allow safe and unhindered overtaking of cyclists by buses (and vice-versa if there is a bus stop). This is less critical on short lengths of segregated bus lane where a narrower lane will normally be acceptable (e.g. contra-flow on one side of a gyratory). (TfL 2009 Section 4.3.10)*

3.4.8	**Cyclecraft** The book Cyclecraft (Franklin 2007), referred to in the previous chapter, is a training guide for cyclists and is recommended reading for Bikeability: The National Training Standard. On contra-flow bus/cycle lanes it notes that they can avoid significant detours for cyclists (Franklin 2007 p165). On cycling in bus/cycle lanes in general it states (Franklin 2007 p165): *When riding in a bus lane, keep to the centre, unless there is another authorised user behind you and it is safe to be passed*
	FRANCE
3.4.10	**Introduction** French practice is similar to Belgium where bus lanes should be either narrow or wide but not in-between. Note the following (IBSR 2007 p 47) - *Open or closed narrow bus lanes are typically 3.2 m wide* - *Wide contra-flow bus lanes are a minimum of 4.3 m wide.*
3.4.11	**Contra-flow bus lanes** Wide contra-flow bus lanes can admit cyclists and overtaking within the width of the bus lane is possible. (IBSR 2007 p 47)
3.4.12	**Bus-only streets** A two-way bus lane (= a bi-directional bus lane or "bus-only street") offers the advantage of flexibility and does not need to be widened when cyclists are authorised to use it. (IBSR 2007 p 47, translated from French by a colleague of this author)
	GERMANY
3.4.13	Bus lanes used by cyclists are sufficiently large (4.75 m) such that cyclists can be overtaken without problems within the bus lane, or are narrow (3.25 m) to the point where all overtaking is impossible without tracking into the [adjacent] roadway (IBSR 2007 p 47, translated from French by this author)

3.5	**Impact on road safety from implementing the proposals**
3.5.1	**General** The literature review and analysis of the existing regulation has not found any justifications *for a universal ban on the use by cyclists of bus-only streets and contra-flow bus lanes.* Specifically it has not encountered any hazards which might be universal to bus-only streets and contra-flow bus lanes which do not also occur in with-flow bus lanes, where there is no universal prohibition of cyclists. One possible difference is that if a cyclist starts to overtake a bus stopped at a bus stop which then starts to pull out, the cyclist might be nudged outwards. In the case of the contra-flow bus lane the cyclist would be nudged out into oncoming traffic while with the with-flow bus lane the cyclist would be nudged out into traffic moving in the same direction. Nevertheless, this case could occur with with-flow bus lanes on the right hand side of roads, which are opened to cyclists. There is no substantial difference between these two cases and therefore this is no justification for having a *universal prohibition* on cycling in contra-flow bus lanes and a *universal permission* to cycle in with-flow bus lanes. As no hazards were identified no risk assessments have been carried out. This is not to suggest that there are no hazards involved where cyclists are admitted to contra-flow bus lanes and bus-only streets. During the design, construction and operation of all bus lanes the risks of admitting or prohibiting cyclists should be assessed on a case-by-case basis. In some cases it may be appropriate to exclude cyclists. This might include the following among other cases: - Bus only-streets or contra-flow bus lanes in underpasses or flyovers; - Express Bus Rapid Transit routes in non-urban locations where alternative cycling routes exist; - Guided busways with concrete guiderails; - Bus lanes which are provided in the median of a dual carraigeway where there is either dedicated provision for cycling or, more generally, a more attractive route for cyclists on the left side on both carriageways.

3.5.2	Risk assessments for all bus lanes should consider, amongst other items, the following when considering whether to admit or prohibit cyclists: - Whether the bus lane is open or closed; - The width of the bus lane; - The length of the bus lane; - The gradient of the bus lane; - The frequency of buses and cyclists; - What other traffic is permitted to use the bus lane; - What other safe / attractive / convenient routes there are for cyclists on nearby or parallel to the bus lane. These risk assessments might lead to the following actions: - The admission or prohibition of cyclists to bus lanes; - Design changes to the infrastructure or remedial works to existing infrastructure; - Enforcement measures; - Educational measures;
3.5.3	**Detector Loops** Some existing contra-flow bus lanes and bus only streets have detector systems which detect the presence or approach of buses and trigger a green signal. If cyclists are admitted to these bus lanes the detector systems should be revised to also detect cyclists.
3.5.4	**Programming any change in regulations.** The regulation to permit cycling in contra-flow bus lanes and bus-only streets should not come into force before an audit is carried out on all existing bus-only streets and contra-flow bus lanes in Ireland. This is for the following reasons: - It may be appropriate in some cases to continue to exclude cyclists from certain contra-flow bus lanes and bus-only streets. An audit is required to identify if any of these exist before changing the regulation; - As noted in the case study in Appendix II, some of the existing contra-flow bus lanes and bus-only streets have details which are generally inadequate and will require remedial works before the bus lane is re-designated as one which permits cyclists; - As noted in the case study some of the existing contra-flow bus lanes and bus-only streets are using non-standard signage which has no basis in the current regulations. These should be audited in relation to the new regulations; - As noted in the case study, it cannot be assumed that the signage on all existing contra-flow bus lanes and bus-only streets is correct – i.e. that it excludes cyclists according to the existing regulations.

3.6	Conclusions
3.6.1	This research found no justification on safety grounds for a universal prohibition on the use of bus-only streets or contra-flow bus lanes by cyclists. Nevertheless, there may be specific cases where cyclists should be excluded from bus only streets, with-flow and contra-flow bus lanes. Each case should be assessed individually rather than being covered by a universal regulation. The design of many existing Irish bus-only streets and contra-flow bus lanes does not match the current regulations and needs to be addressed.

3.7	RECOMMENDATIONS
3.7.1	Remove the universal prohibition on the use of bus-only streets and contra-flow bus lanes by cyclists, subject to the recommendations in 3.4.4 above on the timing of the change.
3.7.2	Enact a regulation which allows cyclist to be prohibited from bus-only streets, contra-flow bus lanes and with-flow bus lanes on a case by case basis.
3.7.3	Revise the regulations on signage to take account of the changes above.
3.7.4	Produce design guidance for the selection of where to permit or prohibit access for cyclists.
3.7.5	Audit existing bus-only streets and contra-flow bus lanes against the new regulation and design guidance and carry out remedial works where required.
3.7.6	Audit locations where signals are controlled by detector loops at present where cyclists are to be admitted to bus lanes and ensure that the signals respond to the presence of cyclists.
3.7.7	Plan for how these changes will be communicated to drivers and cyclists and put in place a strategy for education and enforcement. In consultation with the relevant authorities, consider the sequence of the above recommendations.
3.7.8	In particular, ensure that the universal prohibition of cycling in contra-flow bus lanes and bus-only streets is not removed before all bus only streets and contra-flow bus lanes are audited as set out above, and the relevant actions are completed

4.	**Proposal #3 - Clarification of position of cyclists overtaking to the left of traffic**
4.1	**BRIEF**
4.1.1	Article 10(5) of the Road Traffic (Traffic and Parking) Regulations 1997 (S.I. No. 182 of 1997) (the 1997 Regulations) sets out three instances in which vehicles (including pedal cycles) may overtake on the left i.e (a) where the vehicle to be overtaken has signalled a right turn; (b) where the overtaking vehicle intends to turn left and (c) in slow moving traffic, where vehicles in the traffic lane on the driver's right are moving more slowly than the overtaking vehicle. These conditions – and particularly condition (c) – do not recognise common practice where cyclists (who usually share a traffic lane with other vehicles rather than occupy a lane on their own) continuously overtake on the left. In this light, normal practice by cyclists appears to be technically illegal. In regularising this matter, however, it is considered wise to place a clear restriction on left hand overtaking by cyclists. Accordingly, it is proposed to confine the existing legal framework to all vehicles other than cyclists and, through a new provision, to allow overtaking by cyclists on the left except where the vehicle to be overtaken has signalled an intention to turn to the left and there is a reasonable expectation that the vehicle in which the driver has signalled an intention to turn to the left will execute a movement to the left before the cycle overtakes the vehicle. In proposing this legal change, it is considered that the day-to-day behaviour of the majority of cyclists will be unaffected. This view is based on anecdotal evidence that cyclists currently overtake on the left where it is necessary and safe to do so.

4.2	**EXISTING REGULATION - PROBLEMS**		
4.2.1	Anecdotally it has been observed that it is common practice for cyclists to overtake on the left-hand-side. This can create the following risks:		
	Problem	**Risks**	**Possible Actions**
4.2.2	The existing regulations are not well understood by the public – in that it is unclear if it is permissible to overtake on the left if a cyclist is in a mandatory cycle track or in an advisory cycle track within a vehicle lane? A well-understood regulation might raise awareness among cyclists of where it is and is not safe to overtake.	If road users do not understand the regulations or the signage provided then they may be exposed to excessive risk through mutual misunderstandings of what is expected of each other.	Amend / Clarify regulations
4.2.3	The tolerance of illegal overtaking on the left by cyclists can lead to a general undermining of compliance with the rules of the road. A well understood and rigorously enforced regulation would increase general compliance.	General undermining of compliance with rules of the road.	Amend / Clarify regulations
4.2.4	The practice of illegal overtaking on the left by cyclists may be a cause of frustration among motorists since they perceive cyclists to be breaking the law	This can lead to an increase in conflict between road users which, in turn, increases the risks to all road users.	Education of all road users.

4.3	**REVIEW OF INTERNATIONAL PRACTICE**
4.3.1	This section focuses on UK practice.
4.3.2	Cyclecraft (2007, Franklin) is a standard text for cyclists who are taking part in cycle training. It is closely associated with Bikeability, the National Cycle Training Standard. Pages 94-98 deal with overtaking. The pages deal exclusively with overtaking *on the right-hand-side*. Overtaking on the left-hand-side is dealt with under "Filtering", as discussed below. The risks associated with overtaking are discussed and advice is given. In Chapter 8 "Everyday Movements" (page 97) a warning is highlighted in bold as follows: **Never overtake a moving vehicle on the left side within a moving traffic lane.** This advice, however, is refined in pages 161 – 163 of Cyclecraft and captured in 4.3.3 below.
4.3.3	Pages 161-163 of Cyclecraft deal with "Filtering" through traffic or "traffic-jamming" (negotiating traffic jams). Filtering includes overtaking on the left-hand-side. Franklin makes the following points: *It is unreasonable to expect cyclists to wait in long queues of traffic when there is room for them to pass, but filtering through traffic requires great care;* *Advantages in saving time must be balanced against your increased vulnerability while filtering;* *Normally, overtaking should only take place on the right, and this should be your preference;* *Skilled traffic-jamming is safe as well as useful, acknowledging the responsibilities of cyclists and inconveniencing no one.* Filtering is listed by Franklin as a "Level 3" manoeuvre in Cyclecraft and the UK's Bikeability National Cycle Training Standard. Level 3 is the highest level of training offered to cyclists under Bikeability and covers advanced techniques for cyclists who can already competently cycle in traffic. Franklin also notes the following risks – paraphrased here - and gives advice to cyclists on how to safely filter through traffic. *Cyclists can be squeezed if drivers move left;* *Cyclists can hit the doors of cars which open in their path;* *Cyclists can collide with pedestrians crossing when they expect nobody to be moving;* *Cyclists can be vulnerable to vehicles coming in the opposing direction that a driver in the queue ahead of you allows to turn right, across the path of the cyclist;* *Cyclists may attempt to overtake stationary long vehicles on the left and fail to complete the manoevure before the long vehicle moves off.* *Filtering can annoy some drivers and pedestrians;* *Cyclists might place themselves in a position which is inappropriately far on the left on the approach to a junction, making it difficult for drivers to notice them.*

4.4	**IMPACT ON ROAD SAFETY FROM IMPLEMENTING THE PROPOSALS**
4.4.1	Note that the discussion here does not deal with "footway type " cycle tracks along which cyclists will pass – on the left hand side - slow moving or stationary traffic in the adjacent lanes.
4.4.2	It is expected that the day-to-day behaviour of the majority of cyclists will be unaffected by the change in legislation. Cyclists are - and will continue to be - exposed to risks arising from: (i) being squeezed if drivers move left; (ii) being hit if doors of cars open in their path; (iii) colliding with pedestrians crossing in between the gaps between cars when they expect nobody to be moving; (iv) being vulnerable to vehicles travelling in the opposing direction that the driver in the queue ahead of the cyclist allows to turn right, across the path of the cyclist; (v) attempting to overtake stationary long vehicles on the left and failing to complete the manoeuvre before the long vehicle turns left; (vi) irate drivers who are annoyed by overtaking cyclists since they themselves are stationary; (vii) cyclists placing themselves in a position which is inappropriately far on the left on the approach to a junction, making it difficult for drivers to notice them. The above risks can be reduced through proper road safety education and particularly through cycle training.
4.4.3	The above points suggest that the behaviour of cyclists – vis-a-vis their propensity to overtake on the left in congested conditions – (and other road users) is best dealt with through road safety education. This is especially important in case (v) above where heavy goods vehicles are in the traffic mix.
4.4.4	**Exceptions to permission to pass on the left – buses at bus stops** The text of the proposed regulation on not overtaking vehicles - which "have signalled an intention to turn to the left and there is a reasonable expectation that the vehicle in which the driver has signalled an intention to turn to the left will execute a movement to the left before the cycle overtakes the vehicle" - seems appropriate. However, there may be other exceptions – such as at bus stops where a bus is stopped – that may warrant explicit inclusion. Buses typically pull in to the kerb to stop to allow passengers to alight. In many cases *Kassel* or similar kerbs are provided to facilitate this. In these cases no space is provided where cyclists can overtake a bus on the left. Nevertheless, there are many cases where buses stop at stops to allow passengers to alight and leave space between the bus and the kerb. This might be because of difficulties in accessing the kerb, or it might be due to the design of the bus or street - e.g. coaches with luggage compartments below.

	If a space is left between the kerb and the bus there is a risk that cyclists may not realise that the bus is stopped at the stop and attempt to overtake on the left. This could put cyclists in conflict with alighting or boarding passengers. This increase in the risk for pedestrians is particularly problematic as it is beyond their control and they do not have the power to mitigate the risk. They are reliant on the competence of cyclists. For this reason it is suggested that consideration is given to amending the text of the proposed regulation to include a further clause, with words to the effect that cyclists who are cycling in the main carriageway shall not overtake a bus which is stopped at a bus stop on the left-hand-side. The alternative is to keep the wording as is and use road safety education as the tool to bring about the required behavioural change.

4.5	**CONCLUSIONS**
4.5.1	It is expected that the day-to-day behaviour of the majority of cyclists will be unaffected by the change in legislation. If the regulation is changed *it will not mean that cyclists must overtake on the left-hand-side.* The change would merely give cyclists the option to do so. Cyclists have a responsibility to ensure that they are appropriately informed.
4.5.2	Cyclists can choose overtaking manoeuvres which match their level of cycling skill, while always complying with the regulations. The change in the regulations would allow competent cyclists to safely overtake vehicles on the left. There risks associated with this manoeuvre – as noted in 4.4.2 above - should be dealt with by education and training. This should include the training of drivers as part of the normal driver training.

4.6	RECOMMENDATIONS
4.6.1	Amend the existing regulation so as to allow overtaking by cyclists on the left except where the vehicle to be overtaken has signalled an intention to turn to the left and there is a reasonable expectation that the vehicle in which the driver has signalled an intention to turn to the left will execute a movement to the left before the cycle overtakes the vehicle.
4.6.2	Consider providing an additional exception to include (inter alia) cases where buses are stopped at bus stops.
4.6.3	Plan for how the changes in legislation will be communicated to drivers and cyclists through an appropriate road safety education. This must include appropriate cyclist education of the risks associated with overtaking on the left. This could be similar to the paragraphs on "filtering" included on page 8 of the Road Safety Authority's leaflet "This is Your Bike" (RSA, 2004).
4.6.4	There must be appropriate emphasis in the road safety education / cyclist training courses on the risks associated with overtaking on the left and particularly in regard to where there are heavy goods vehicles in the traffic mix.

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