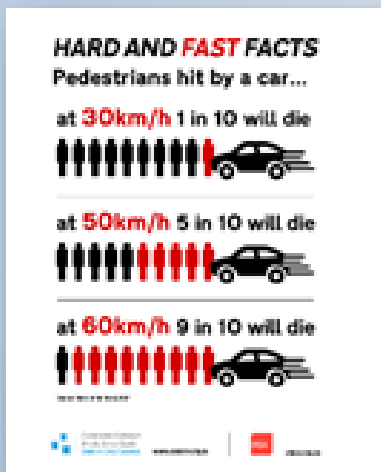




Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council

Report to the Chairperson and the Members of the Central Area Committee meeting

Report on the Proposal for Dublin City Council Special Speed Limit Bye- Laws, March 2021.



Senior Executive Engineer Willian Mangan
Executive Engineer Rossana Camargo

Technical Note

Project: Concept for Dublin City Council
Special Speed Limit Bye-Laws, March 2021

To: The Chairperson and the Members of the Central Area
Committee meeting

Cc: Senior Engineer Bernard Lester

Cc: Senior Executive William Mangan Road Safety Section

Cc: Senior Engineer Patricia Reidy

Cc: Executive Engineer Rossana Camargo Road Safety
Section

1. Summary on the Outcome on the last Public Consultation on Dublin City Council's Special Speed Limit Bye-Laws 2020 (COVID19)

The recent Phase 5 Speed Limit Bye-Laws 2020 (Covid-19) was not passed by the Council primarily due to some elected members raising different concerns including car design constraints for prolonged driving at lower speeds, delays for busses, difficulties to focus on the road while monitoring speedometer etc. The outcome of the related public consultation resulted in 56% of people opposing the Bye-Laws could also be a contributory factor to the Bye-Laws not receiving the council's approval.

- More enforcement and the needs for mobility education
- At the September full council meeting 2020, councillors requested to introduce 40 km/h on the following roads: Griffith Avenue, Collins Avenue, Oscar Traynor Road, Malahide Road and Ardlea Road junction to Fairview.
- From the Public submissions, member of the public requested to change the speed limit from 50 km/h to 30 km/h On the following roads: Amiens Street, Cork Street, Drimnagh Road, Crumlin Road, Dolphins Barn, Lucan Road, Martins Row, East Wall Road, North Circular Road, Drumcondra Road and Ballymun Road.

2. Benefits of introducing 30 km/h the differences 30 km/h and 40km/h for speed limit for the City

Benefits of 30 km/h

HARD AND FAST FACTS Pedestrians hit by a car...

at **30km/h** 1 in 10 will die



at **50km/h** 5 in 10 will die



at **60km/h** 9 in 10 will die



Source: Rules of the Road, 2007

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Lowering speed limits and lowering the speed differential between the active modes and motorised traffic will contribute to enhanced safety throughout the city.

The introduction of 30km/h speed limit in all roads of the city will make the city safer for more people to walk and cycle and will also assist in making the city a safer place for everyone.

Road accident statistics show lower speeds result in less fatalities, less injuries and severity of injuries with motorists benefiting most. A 5km/h difference in speed could be the difference between life and death for a vulnerable road user like a pedestrian.

- Hit by a car at 60km/h, 9 out of 10 pedestrians will be killed.
- Hit by a car at 50km/h, 5 out of 10 pedestrians will be killed.
- Hit by a car at 30km/h, 1 out of 10 pedestrians will be killed.

Figure 1: Hard and fast facts

- A calmer city, safer roads and shorter braking distance.
- It gives the driver a better view of their surroundings and makes
- It's easier for them to see any pedestrians crossing the road, cyclists and other vehicles. 30kph increases mobility for young people improves health as more walk or cycle and creates vibrant people-friendly spaces.
- Making the city a quieter and safer place to live.

Technical Note

Example from Europeans cities that have introduced 30 km/h:

- London has 20mph (32km/h). A speed limit of 20mph has been imposed on all central London roads managed by Transport for London (TfL), in an attempt to reduce road deaths. The default speed limit in the city is part of a new Vision Zero road safety action plan to encourage more people to walk and cycle in London.
- Edinburgh, The speed limit in the capital was dropped from 30mph on the majority of streets, crashes fall by a third after Edinburgh's 20mph limit introduced. The research found that the average monthly number of road traffic collisions dropped from 95 in 2016 to 64 in 2018.
- Paris has 30km/h in its core to improve air quality, but also to reduce noise pollution and traffic accidents.
- Brussels has 30km/h in its core. Its first data from Brussels on average speeds since the new general 30 km/h limits was introduced on the 1st of January 2021. The recently speed survey shows a 9% average reduction in speed and no significant increase in journey times.

Stockholm Declaration' wants a general 30 km/h speed limit

The Stockholm Declaration explains that setting a speed limit of 30 km/h should become “the new normal” in all places where cars, cyclists, and pedestrians frequently interact:

Resolution 11 calls for: “Focus on speed management, including the strengthening of law enforcement to prevent speeding and mandate a maximum road travel speed limit of 30 km/h in areas where vulnerable road users and vehicles mix in a frequent and planned manner, except where strong evidence exists that higher speeds are safe, noting that efforts to reduce speed will have a beneficial impact on air quality and climate change as well as being vital to reduce road traffic deaths and injuries”. (Declaration, 20 February 2020)

The declaration sets a clear message that the adoption of 30km/h limits as a default is necessary on urban and village streets where people live, work, play and shop. Research shows that the introduction of 30 km/h speed limits could improve road safety and air quality. It also shows that 30 km/h zones must be physically enforced; for example, by constructing road humps, plateaus, and road narrowing.

In the Stockholm Declaration endorsed by the Irish minister responsible for road safety, 30km/h was called for as the max speed where pedestrians and cyclists mix with motors unless there was clear evidence that a higher speed was safe.

Survivability at 30km/h v 40km/h

There is clear indication on the survivability at 30km/h v 40km/h.

Injury Risk

(European Commission Mobility and Transport Road Safety, 2021) Explains that risk is highest in light vehicles and for unprotected road users when a heavy and a light vehicle collide. The occupants of light vehicles are far more at risk to sustain serious injury. This is because the energy that is released in the collision is mainly absorbed by the lighter vehicle. Currently, the differences in mass between vehicles are very large. The difference between a heavy goods vehicle and a car can easily be a factor 20. But also the mass differences between cars are large and still increasing. A mass difference of a factor 3 is not an exception. Nevertheless, inappropriate speed remains a larger factor than mass differences in contributing to numbers of severe accidents.

Pedestrians, cyclists and moped riders have a large risk of severe injury when colliding with a motor vehicle. The difference in mass is huge and the collision energy is mainly absorbed by the lighter 'object'. In addition, pedestrians, cyclists and moped riders are completely unprotected: no iron framework, no seatbelts, and no airbags to absorb part of the energy. For a collision between a car and a pedestrian, the following relationship between speed and survival chance was established Ashton and Mackay (1979)

Car Speed	% fatally injured pedestrians
32 km/h	5
48 km/h	45
64 km/h	85

Technical Note

The probability that a pedestrian will be killed if hit by a motor vehicle increases dramatically with speed. The probability of a fatal injury for a pedestrian colliding with a vehicle is illustrated in the below figure. The research from Road Safety Manual for Decision-Makers And Practitioners World Health Organization indicates that while most vulnerable (unprotected) road users survive if hit by a car travelling 30 km/h, the majority are killed if hit by a car travelling at 50 km/h

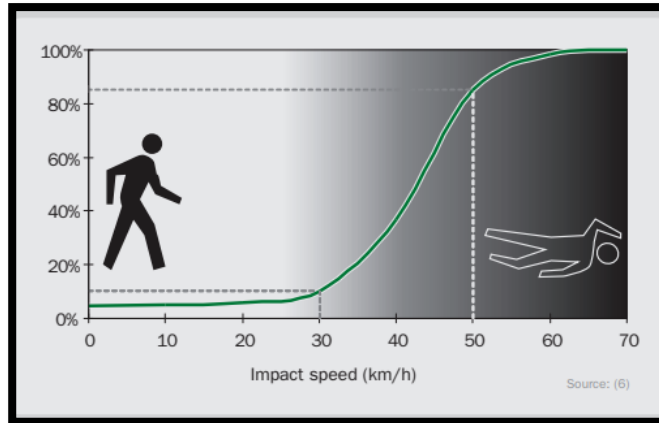
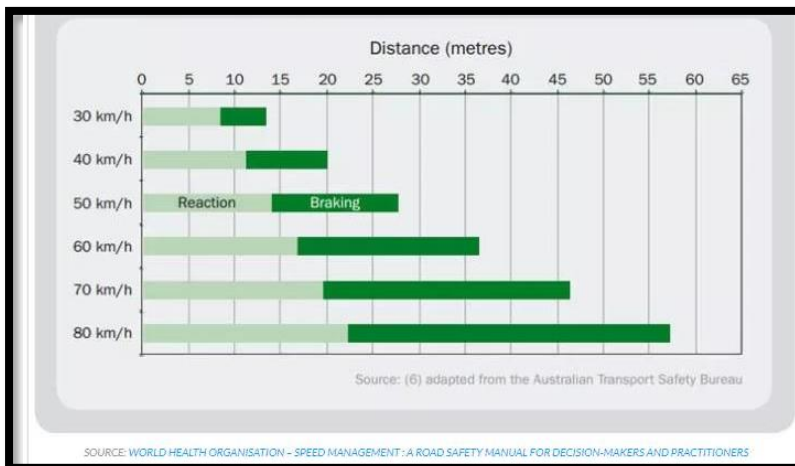


Figure 2: Probability of Fatal Injury for Pedestrian Colliding with Vehicle.

Stopping Distances.

The higher the speed, the longer the stopping distance. Even if a collision occurs, the consequences are less serious at a slower speed. Please see the following figure, Stopping distances from Speed management: a road safety manual World Health Organization.



A very important issue on busy streets is that, the distance a 30km/h car can stop of 13m a 40km/h car has only just had the brakes applied and will still be doing in excess of 30km/h. It's the difference between "stopping in time and missing a pedestrian" or "hitting them at 30km/h".

Figure 3: illustration of stopping distance in an emergency braking. Source World Health Organization Speed management a Road safety manual for decision maker and practitioners

Different speed limits will lead to a proliferation of signage throughout the city:

The best practice is to have standard speed limits on the roads and minimise the changes of speed limits on certain roads, where an exception to this speed limit applies. Speed limit signs are provided only at the points of entry to the speed limit zone and at the points of change from one-speed limit to another. If a designer implements different speed limits on the roads, this would lead to a proliferation of signs throughout the city and cause distraction and confusion for drivers.

30 km/h is the best practice as per the Stockholm Declaration. At a time when the world, including United Nations, World Health Organization, OECD, etc is saying that 30km/h should be the max unless there is clear evidence that higher is safe, a 40km/h limit (which endorses driving at 40km/h) is difficult as a designers to implement 40 km/h as the evidence are clear that the safer for vulnerable road users such as pedestrians, cyclists, moped riders and motorcyclists is 30 km/h.

Technical Note

The importance to implement 30 km/h for Dublin city (School Zone)

As the city is expecting to be re-opening gradually, Dublin City Council needs to make sure that we adhere to the rules of this new way of living and working and continue to suppress the spread of the virus. Dublin City Council requires to implement lower speeds on all the roads of Dublin City in order to increase safety for the increased number of pedestrians and cyclists on the road network.

School Zones are designed to create a safer, calmer, attractive environment in front of schools. The Zones consist of gateway School Zone and painted circle road markings with pencil bollards.

The objectives of the zones is to make it safer for children to engage in active travel by walking and cycling to school. This is achieved through increased visibility of the zone which draws motorist attention to the presence of a school and discourage speeding and vehicle drop-off congestion in vicinity of the school.

Since the introduction of its first 2 School Zones, Dublin City Council has received over 100 applications from primary schools throughout the DCC area. To-date, 29 school zones have been installed on streets with 30kph speed limits. Feedback has been very positive. However, applications have been received from a large number of schools located within **50km/h** speed limit areas which are not suitable for the implementation of school zones. In accordance with NTA guidelines.



Figure 4: School Zones Lord Mayor of Dublin Hazel Chu at the first school zone at Francis Street School

The Road Safety Section recommended the reduction of the speed limit from 50 km/h to 30 km/h at all school locations in Dublin. This will reduce traffic congestion, improve air quality, and will encourage cycling and walking among children with the associated benefits of better physical and mental health and better concentration.



Figure 5: School Zones at Central Model School and Star of the Sea

Technical Note

3. New proposal Dublin City Council's Special Speed Limit Bye-Laws 2021

The Road Safety section reviewed in the new proposal the observations received on the last public consultation from:

1. The September full council meeting 2020, councillors requested to introduce 40 km/h on the following roads: Griffith Avenue, Collins Avenue, Oscar Traynor Road, Malahide Road and Ardlea Road junction to Fairview.
2. The Public submissions, member of the public requested to change the speed limit from 50 km/h to 30 km/h on the following roads: Amiens Street, Cork Street, Drimnagh Road, Crumlin Road, Dolphins Barn, Lucan Road, Martins Row, East Wall Road, North Circular Road, Drumcondra Road and Ballymun Road.
3. The reviewed of the overall network of all the arterial roads was reviewed taking in consideration the following criteria:

3.1 General Criteria for the introduction of 30 km/h in the arterial roads:

1. Traffic Management Guidelines recommends 30 km/h for the speed limit on the main roads and villages as a default speed throughout the Central Area.
2. There will be exceptions to this speed which are summarised below.(Table 1: Exclusion Road Central Area)
3. Traffic Management Guidelines explains that the minimum length of a speed limit is normally 800 metres. This is to give drivers the opportunity to adjust their speeds and not confuse them with frequent changes of limits. Situations arise where it is better to curtail or extend a speed limit to clear a hazard such as a bend, a junction or a hump-backed bridge. **(TMG P.71)**.
4. The reduction of speed limit was carried out following the specification setting on the Guidelines for Setting and Managing Speed Limits in Ireland chapter 6 and 7 (The Setting of Speed Limits – General Guidance and The Setting of Speed Limits – Detailed Guidance).
5. The presence of schools on the roads. The reduction of speed will give more protection to the School children and all road users including pedestrians and cyclists which are the most vulnerable.
6. Roads that are in residential Areas. The reduction of speed will give more protection to the residents and all road users including pedestrians and cyclists which are the most vulnerable.
7. The proximity of the villages in the Central Area.

3.2 The Road Safety Section Assessment:

1. Table 1: Exclusion Road Central Area

	Road	Current speed limit	Proposed speed limit	School present	Other amenities	Reason for not Changing
1.	Number 3: Navan Road between Dublin City Council / Fingal County Council's boundary and junction with Baggot Road and Kinvara Avenue.	50 km/h	50 km/h			Arterial Road
2.	Number 16: M50 Dublin Port Tunnel (North Port Access Route), Southbound from a point 205m north west from centre	50 km/h	50 km/h			Arterial Road

Technical Note

	Road	Current speed limit	Proposed speed limit	School present	Other amenities	Reason for not Changing
	of Toll plaza, along the R131 East Wall Road to its intersection with the roundabout Sean Moore Road.					
3.	Number 17: M50 Dublin Port Tunnel (North Port Access Route), Northbound from its intersection with roundabout at Sean Moore Road, along the R131 east Wall, to a point 205m north west from the centre of the Toll Plaza	50 km/h	50 km/h			Arterial Road

2. Table 2: Reduction of speed limit from 50 km/h to 30 km/h at the Central Area

	Road	Current speed limit	Propose speed limit	School present	Other amenities	Reason for change
1.	Navan Road from Baggot Road to Old Cabra Road	50 km/h	30 km/h	<ul style="list-style-type: none"> Holy Family School for the Deaf St Joseph's School for Deaf Boys St John Bosco Junior Boys' School, Ashtown St Joseph's Boarding Campus for Deaf Boys 		School zones
2.	Old Cabra Road to North Circular Road	50 km/h	30 km/h		<ul style="list-style-type: none"> Lidl Cabra East PH Ross Plumbing & Heating Centre Cabra 	Residential area
3.	Purssia Street	50 km/h	30 km/h		<ul style="list-style-type: none"> Shopping Centre 	
4.	Manor Stoney Batteer	50 km/h	30 km/h	<ul style="list-style-type: none"> Stanhope Street Primary School 	<ul style="list-style-type: none"> Shops 	School zones/ residential area
5.	Blackhorse Avenue	50 km/h	30 km/h	<ul style="list-style-type: none"> St Vincent special school 		School zones

Technical Note

	Road	Current speed limit	Propose speed limit	School present	Other amenities	Reason for change
6.	North Circular Road from Infirmary Road to Summerhill Parade	50 km/h	30 km/h	<ul style="list-style-type: none"> O'Connell CBS Primary School 	<ul style="list-style-type: none"> HSE Phoenix Care Centre Grangegorman Hospital 	School zone and hospitals
7.	Infirmary Road	50 km/h	30 km/h		<ul style="list-style-type: none"> The Criminal Courts of Justice 	Residential area
8.	Nephin Road	50 km/h	30 km/h	<ul style="list-style-type: none"> St. Declan's College 		School zone
9.	Skreen Road	50 km/h	30 km/h			Residential area
10.	Ratoath Road	50 km/h	30 km/h	<ul style="list-style-type: none"> St. Declan's College North Dublin Muslim national school Marian School for Impaired Hearing 		School zones
11.	Chapelizod Road from Martin's Road to South Circular Road	50 km/h	30 km/h		<ul style="list-style-type: none"> Phoenix Park 	Park area
12.	Conyngham Road to Parkgate	50 km/h	30 km/h		<ul style="list-style-type: none"> Phoenix Park 	Park area
13.	Parkgate Road	50 km/h	30 km/h			Residential
14.	Wolfe Tone Quay	50 km/h	30 km/h			cyclist route
15.	Ellis Quay	50 km/h	30 km/h			cyclist route
16.	Arran Quay	50 km/h	30 km/h			cyclist route
17.	Innis Quay	50 km/h	30 km/h			cyclist route
18.	Ormond Quay Upper	50 km/h	30 km/h			cyclist route
19.	Custom house Quay	50 km/h	30 km/h			The Quay. City centre, higher in pedestrian
20.	North Wall Quay	50 km/h	30 km/h			Residential offices area
21.	Church Street	50 km/h	30 km/h			Residential area
22.	Constitution Hill	50 km/h	30 km/h		<ul style="list-style-type: none"> King's Inns Park 	Park area
23.	Phibsborough Road to the junction of Undsay Road	50 km/h	30 km/h		<ul style="list-style-type: none"> Broadstone Hall - Student Accommodation 	Residential area

Technical Note

	Road	Current speed limit	Propose speed limit	School present	Other amenities	Reason for change
24.	Botanic Road	50 km/h	30 km/h			Residential area
25.	Botanic Avenue from Botanic Road to Drumcondra Road	50 km/h	30 km/h			Residential area
26.	Finglas Road from Claremont Court to Prospect Road	50 km/h	30 km/h	<ul style="list-style-type: none"> St. Vincent's Secondary School 		School in the area
27.	Whitworth Road from Prospect Road to Drumcondra Road	50 km/h	30 km/h		<ul style="list-style-type: none"> NCBI Working with People with Sight Loss 	Residential area
28.	St Mobhi Road	50 km/h	30 km/h	<ul style="list-style-type: none"> Scoil Mobhí Colaiste Caoimhin Scoil Chaitríona 		School zone
29.	Finglas Road Old	50 km/h	30 km/h	<ul style="list-style-type: none"> St Brigid's G.N.S. St. Mary's Secondary School 	<ul style="list-style-type: none"> St Johns Education Cent 	School zone
30.	Glasnevin Hill	50 km/h	30 km/h		<ul style="list-style-type: none"> Bon Secours Hospital Dublin 	Residential area and hospital
31.	Ballymun Road	50 km/h	30 km/h	<ul style="list-style-type: none"> Glasnevin Educate Together National School 		School zone
32.	Home Farm Road	50 km/h	30 km/h	<ul style="list-style-type: none"> Corpus Christi G.N.S 		School zones
33.	Drumcondra Road from Griffith Avenue to North Circular Road	50 km/h	30 km/h			Residential area
34.	Dorse Street Lower	50 km/h	30 km/h	<ul style="list-style-type: none"> Celtic High School 		School zone
35.	Dorse Street Upper	50 km/h	30 km/h	<ul style="list-style-type: none"> St Mary's Primary School 		School zone
36.	Bolton Street	50 km/h	30 km/h	<ul style="list-style-type: none"> Henrietta Street School 	<ul style="list-style-type: none"> TU Dublin Bolton Street Library 	School zone
37.	King Street North	50 km/h	30 km/h	Escuela Ebs Dublin		School zone

Technical Note

	Road	Current speed limit	Propose speed limit	School present	Other amenities	Reason for change
38.	Gardiner Street Upper	50 km/h	30 km/h	Gardiner Street School		School zone
39.	Gardiner Street Lower	50 km/h	30 km/h			Residential area
40.	Beresford Place	50 km/h	30 km/h		The Custom House	The Quay/ higher in pedestrians
41.	Memorial Road	50 km/h	30 km/h		The Custom House	The Quay/ higher in pedestrians
42.	Ammens Street	50 km/h	30 km/h		Connolly Station	Higher in pedestrian
43.	Seville Place	50 km/h	30 km/h	<ul style="list-style-type: none"> St Laurence O'Toole's CBS, Senior Boys' Primary School Special Primary School St Laurence O'Toole Girls & Boys national School 		School zone
44.	Guild Street	50 km/h	30 km/h		<ul style="list-style-type: none"> AIG Ireland Offices 	Offices area
45.	North Strand Road	50 km/h	30 km/h	<ul style="list-style-type: none"> St Columba's school St. Laurance O'Toole Special School 	<ul style="list-style-type: none"> Marino College of Further Educatio 	School zones
46.	Sheriff Street Upper	50 km/h	30 km/h			Residential
47.	East Wall Road from North Strand Road to Dublin Port	50 km/h	30 km/h	<ul style="list-style-type: none"> St. Joseph's Co-Educational National School 		School zone
48.	Poplar Row	50 km/h	30 km/h			Residential
49.	Clonliffe Road	50 km/h	30 km/h	Match meeting point Brandon		School zone
50.	Russel Street	50 km/h	30 km/h			Residential
51.	Jones's Road	50 km/h	30 km/h			Residential
52.	Summerhill	50 km/h	30 km/h		St Vincents Girls' National School	School zones

Technical Note

	Road	Current speed limit	Propose speed limit	School present	Other amenities	Reason for change
						Residential area
53.	Ballybough Road	50 km/h	30 km/h		Playdays	Residential area
54.	Fassaugh Road	50 km/h	30 km/h	Christ the King Boys School		School zone
55.	Fassaugh Avenue	50 km/h	30 km/h			Residential area
56.	Connaught Street	50 km/h	30 km/h			Residential area
57.	Ballyboggan Road	50 km/h	30 km/h		Tolka Valley Golf Course	Residential area

TIMELINE FOR IMPLEMENTATION OF NEW SPEED BYE LAWS

- **Stage 1** – Proposal presented at Central Area Meeting on Tuesday the 9th of March 2021.
- **Stage 2** – Councillors given 1 week to send feedback to speedreview@dublincity.ie. Feedback on the proposal must be given before 5pm on Tuesday the 16th of March 2021. If no feedback is received before this date it will be presumed that the Councillor has no feedback relating to the proposal.
- **Stage 3** – The proposal will go up on the Consultation hub on Monday the 29th of March 2021 for a Non-Statutory Public Consultation Process. This will be for 2 weeks from Monday 28th of March until Friday 9th of April.
- **Stage 4** – At the end of this process The Road Safety Section will circulate the final map and report for noting to the Councilors at the end of April.
- **Stage 5** – The report will be presented at the Traffic and Transport SPC meeting on the Wednesday 5th of May 2021.
- **Stage 6** – The report will be presented at the City Council Monthly Meeting on Monday 10th of May to obtain the approval to carry out statutory Public Consultation from the Monday 7th of June to the Monday 19th of July 2021.
- **Stage 7** – The report of the outcome of the statutory public consultation will be presented at the Traffic and Transport SPC meeting on the Wednesday 8th of September 2021
- **Stage 8** – The report of the outcome of the statutory public consultation will be presented at the City Council Monthly Meeting on the Monday 4th of October 2021.
- **Stage 9** – With the approval of the Councillors on the Special Speed Limit Bye-Laws, 2021 the Road Safety Section will carry out the implementation of signage starting on December 2021.

Bibliography

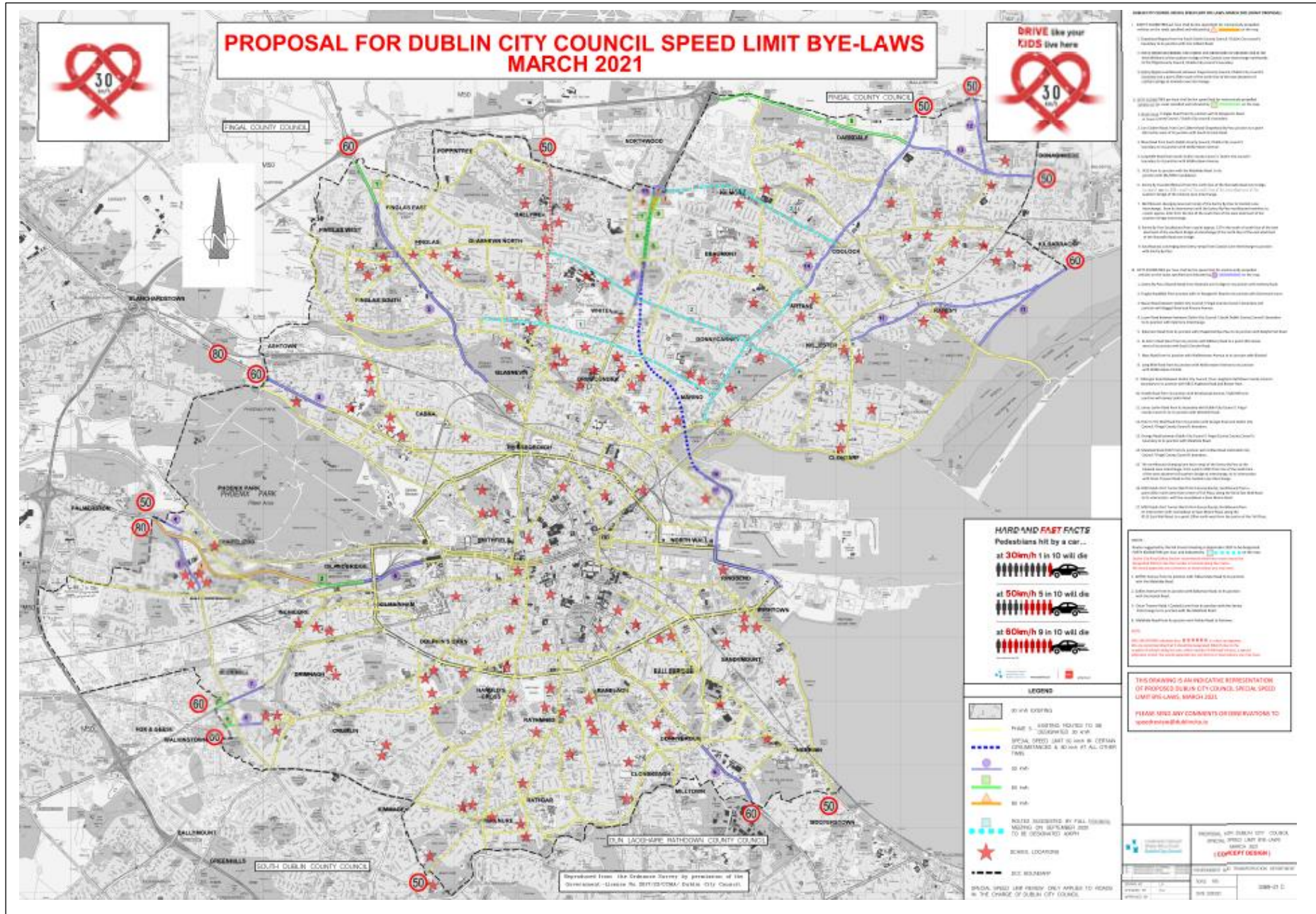
Declaration, S. (20 February 2020). Achieving Global Goals 2030 Stockholm,. Stockholm, Sweden: Declaration, Stockholm.

European Commission Mobility and Transport Road Safety. (2021, 02 16). Retrieved from https://ec.europa.eu/transport/road_safety/specialist/knowledge/speed/speed_is_a_central_issue_in_road_safety/speed_and_the_injury_risk_for_different_speed_levels_en

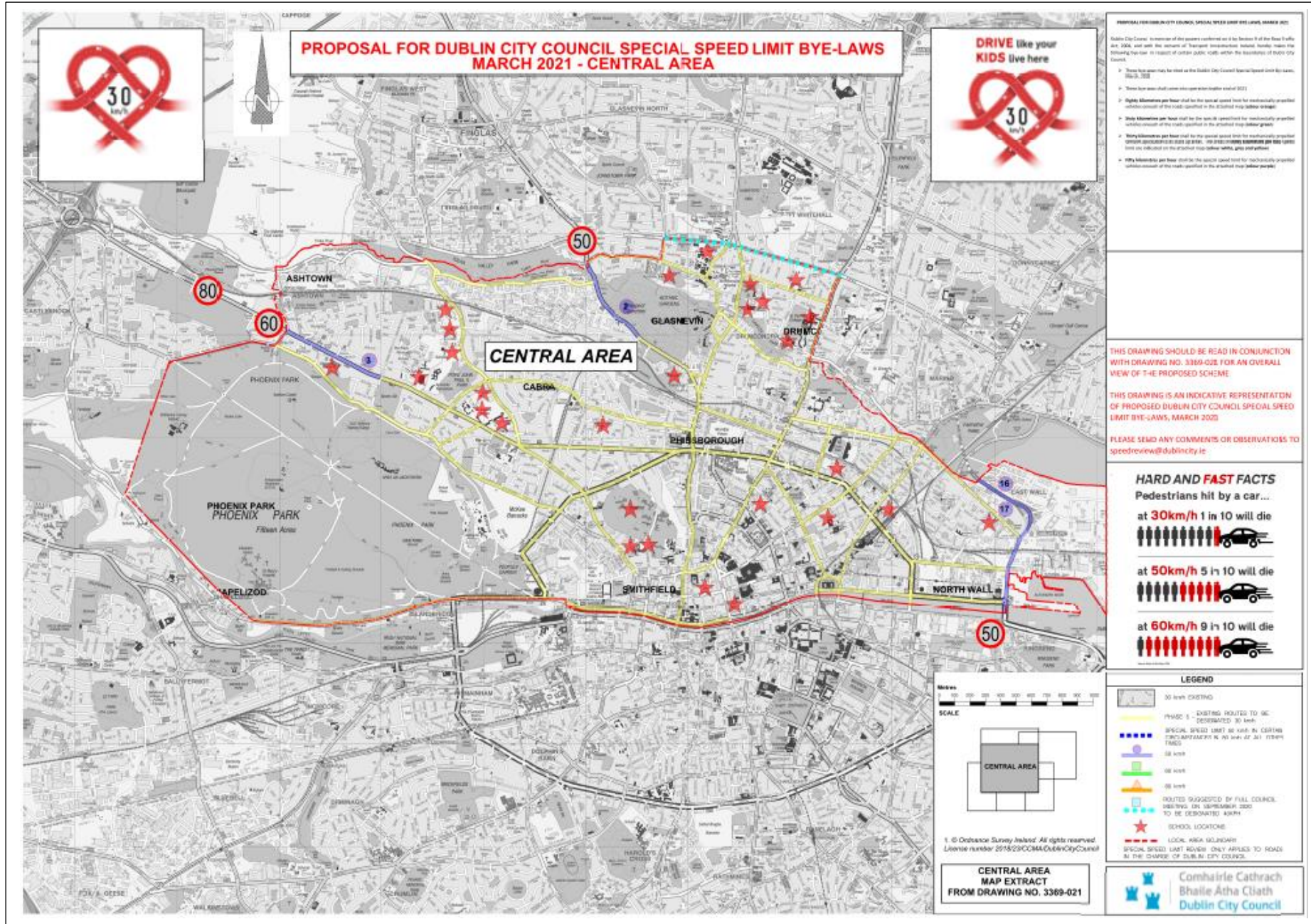
Appendixes:

1. Map Proposal for Dublin City Council Special Speed Limit Bye-Laws, March 2021
2. Central Area Map Proposal for Dublin City Council Special Speed Limit Bye-Laws, March 2021
3. Social media campaign February 2021 #Loving30

Technical Note



Technical Note



Technical Note

Social Media Campaign #Loving 30

- Workshop Loving 30

The Road Safety Section organized a workshop on the Thursday 28th January 2021 on Microsoft Teams, in order to raise awareness and clarification on the importance of introducing 30 km/h as a safer measure. The link is available as follows: <https://www.youtube.com/watch?v=q2rYn412LsU>.

- Social Media Campaign #Loving 30:

Twitter/ Facebook Lord Mayor post



Twitter/ Samuel Beckett Bridge



Instagram GIF loving 30



- Twitter Impressions: 33,540
- Twitter Total engagement: 666
- Facebook people reached: 4832
- Facebook reactions: 121

- Impressions 17,674
- Media views 3947 total engagement 689
- Retweets 147

- Reached 2038
- Impressions 2107