

THE CHESTER TO BANGOR TRUNK ROAD (A55) (JUNCTIONS 14 & 15 AND JUNCTIONS 16 & 16A IMPROVEMENT REALIGNMENT AND SLIP ROADS) SCHEMES & ASSOCIATED SIDE ROADS & COMPULSORY PURCHASE ORDERS – PUBLIC LOCAL INQUIRY

PROOF of EVIDENCE
Respondent ID: J15 – R040

Summary of document

1. Climate emergency
2. Impact on North Wales during construction
3. Noise pollution
4. Impact on Views to Blue and Green Space
5. Need for the Scheme?
6. Safety
7. Faults in the Consultation Process
8. Summary
9. Solutions

1. Climate Emergency

The Welsh Senedd has declared a climate emergency with the country needing to reduce its carbon emissions by 37% by 2025. The new Transport Strategy that is meant to be putting public transport at the heart of Wales' future and tackle carbon emissions will be damaged by this scheme which will eliminate the only bus stop at the east end of Llanfairfechan, encourage car use, increase car speeds and add to Wales' carbon footprint during its construction.

The latest UN Intergovernmental Panel on Climate Change Report 2021 found that a 1.5C rise in global temperatures was likely whatever efforts were now made to cut carbon emissions, leading to extreme heatwaves, droughts and flooding. Some of the changes are now inevitable and “irreversible,” the report concludes, with only rapid and drastic reductions in greenhouse gases within the current decade able to prevent devastating climate breakdown. It has been labelled a code red for humanity. The current CO2 targets that the Welsh Government have committed to are clearly no longer enough according to the IPCC report. The report also emphasizes that it is still not too late if we act now.

The Welsh Government’s deputy minister for climate change Lee Waters said that they would “take firm action” that is “not always popular but it necessary to protect people”. “We need the courage to keep to that approach on climate,” he said in response to the

report. "The science is clear." This scheme to remove the roundabout, planned for a long time ago, does not conform to these current sentiments.

In the latest UK State of the Climate Report the report's lead author says "A lot of people think that climate change is in the future- but this proves the climate is already changing in the UK". My partner and I are already personally experiencing problems because the difficult weather is making it harder for us to grow our own vegetables to eat and our garden has suffered severe flooding twice in the last ten years. I am doing everything I can in my own life to reduce my own carbon footprint but seeing a project like this happening on my doorstep would make my efforts, and concerned others like me, seem futile.

A new paper from the Climate Crisis Advisory Group, founded by the former UK chief scientist Prof Sir David King says "Greenhouse gas levels are already too high for a manageable future for humanity" so surely any large road project like this should be abandoned in order for the Welsh Government to show it is serious in dealing with this climate emergency, especially as the A55 itself is so vulnerable to flooding with parts of it, including past Llanfairfechan, at risk of being underwater by 2050.
(<https://www.thenational.wales/news/19343724.rising-sea-levels-threaten-north-wales-roads-coastal-railway-links-warn-bangor-university-academics/>
<https://nation.cymru/news/updated-climate-change-sea-level-risk-map-shows-large-parts-of-wales-flooded-by-2050/>

The fact that James Healey has said that the scheme 'only makes up 0.06% of the Welsh carbon budget' (although the figure of 20,634 tonnes of carbon also does not include the amount to obtain the extra hardcore needed for the scheme - approximately 27,423 tonnes of cut earthworks materials and 84,416 tonnes of imported earthworks materials) and that this is 'not considered significant' is not an acceptable attitude during a climate emergency. All actions that increase CO2 levels are small if compared to the total figures, and clearly the problem arises from them all being added together. Attitudes like this are exactly why we are already in such trouble as a planet. It insults anyone whose life has been devastated by climate change, belittles any personal efforts people might be making to reduce their carbon footprint and ignores the fact that any amount above zero is making things worse and should be reduced if at all possible. As a nation we have to make a stand and show the way. We can't be greenwashing with what we say whilst working out how much we can get away with any more, or think that everything can be offset by planting trees. Even if the figures are correct, with 1 mature hardwood tree absorbing 48 pounds of CO2 in a year it would take 962,918 mature trees to offset this project. Only projects with significant benefits, essential to peoples lives, should be considered right now if we are to act responsibly.

2. Impact on North Wales during construction

With talk of the project beginning in the near future it couldn't be coming at a worse time, as the country is still in the middle of dealing with the terrible mental and economic costs

of Covid. This has been especially bad in North Wales which relies heavily on tourism and the hospitality industry. The public consultation into the scheme is already causing a lot of people stress and anxiety on top of this. The significant congestion that the two year scheme will cause on the A55 will have a detrimental impact on the number of people wanting to visit North Wales (just as it's Slate Landscape has been added to the list of Unesco World Heritage sites). It will greatly reduce travel times of people going to work, going to the doctors and generally travelling around the area particularly at peak times, as well as have a concerning economic effect on businesses in Llanfairfechan and North Wales generally with the small benefit of a few seconds off A55 journey times once the project is complete. James Healey has said that delay costs are equivalent to 2 years worth of scheme benefits. Anyone who has experienced construction on the A55 that causes it to go down to one lane would say that this is an extremely conservative estimate considering the scale of the disruption that the scheme will cause. But even if it is correct this is not ideal considering the hardships many in the area are already currently suffering with.

3. Noise Pollution

The nuisance noise pollution from the construction period is very worrying for many in Llanfairfechan. This is partly due to residential housing being in such close proximity to the road works and also how noise from the road travels right up through the village because of its placement on the foothill slopes of the Carneddau mountain range.. Already the noise from the A55 is intrusive and can be heard clearly from the top of Penmaenmawr Mountain. This project will be taking place for two years up to 12 hours a day and often into the night. Current studies are showing more and more how noise – particularly nuisance noise like that from construction work (defined as “an unlawful interference with a person’s use or enjoyment of land or some right over it, or in connection with it” in the 1990 Environmental Protection Act) is harmful to human health.

According to a UKNA report, children suffer some of the most adverse effects of noise: “Traffic noise disrupts hearing, learning and understanding, impacts which are particularly significant for child development” and yet the construction area will be in very close proximity to Ysgol Pant-Y-Rhedyn.

Dr Yutong Samuel Cai, an epidemiologist at Imperial College London has said in a Guardian article this year 'In the past two or three years, the links between noise pollution and mental health are becoming clearer,' “It seems to be motivated by both sleep disturbance and noise annoyance” Rok Ho Kim, occupational health scientist at the World Health Organisation (WHO) Regional Office for Europe has said “After prolonged exposure (to excessive noise), the impacts of annoyance, stress and sleep disturbance can cause physiological responses resulting in heart disease, high blood pressure and mental illness” and that noise pollution “is comparable with the burden of disease associated to air pollution,”.

Have the scheme developers really taken into account this new research in the areas of sleep disturbance, annoyance, hypertension and productivity? The World Health Organisation regards 55 dB(A) Leq* as the maximum day time level before it becomes

annoying (the base level for residential areas), and 35 dB(A) as the maximum desirable noise level for sleep. Will any noise insulation street barriers be installed everywhere that they are needed and will they take into account Llanfairfechan's steep angle up from the A55. Will it be constantly assessed during the construction period?

On a personal level, when there has been construction work on the A55 at night the beeping, drilling, generator noise and flashing lights have led me to sleep very poorly even when it is just over a couple of days, so previous roadworks do not seem to have complied with regulations. I am self employed and work with dangerous machinery and I am very worried about how construction work going on for so long will affect my work – either the potential for a bad accident or loss of work because of health issues due to this pollution.

The increase in noise due to the faster speeds of cars once the scheme is finished is also a concern, particularly as hotter weather in recent years has meant that people are needing to open their windows more often. During certain weather conditions the A55 already gets very loud and according to the report large sections of it will not be getting any sound barriers. The A55 section past Colwyn Bay already has a 50mph limit to reduce noise in residential areas close to the road, and other roads have been reduced to 50mph for climate change reasons. This suggests that the A55 section past Llanfairfechan should have a 50mph speed limit (which it does naturally at the moment because of the roundabout) especially as every 1 mph reduction in average speed, collision frequency reduces by around 5% (Taylor, Lynam and Baruya, 2000).

4. Impact on views to Blue and Green Space

The scheme's 10m high embankments and overpass will block or restrict views of the ocean from many parts of Llanfairfechan and the removal of mature vegetation will reduce the amount of Green Space residents see.

In a study in 2018 by Angel M Dzhambov of the Medical University of Plovdiv, Bulgaria he says 'Our findings support that Green Space and Blue Space are psychologically restorative features in urban environment. The beneficial effect of green space is associated with three major domains: it reduces harmful exposures (e.g. to noise and air pollution), restores mental capacities (e.g. attention and stress recovery), and favours building new ones (e.g. social cohesion and physical activity) (15)'.
(https://www.researchgate.net/publication/329026841_Residential_green_and_blue_space_associated_with_better_mental_health_a_pilot_follow-up_study_in_university_students)

In recent years there has been ever increasing evidence regarding the positive impact of Green Space, however it is much more recent that new studies on Blue Space have been shown to have a large impact on peoples mental health too.

A study co-authored by Amber L Pearson of Michigan State University in 2016 shows a link between health and the visibility of blue water. To gauge psychological distress, the researchers analyzed data from the New Zealand Health Survey. The national survey used the Kessler Psychological Distress Scale, or K10, which has proven to be an accurate predictor of anxiety and mood disorders. Even after taking into account residents' wealth,

age, sex and other neighbourhood factors, the study found that having a view of the ocean was associated with improved mental health.

(Michigan State University. "Ocean views linked to better mental health." ScienceDaily. ScienceDaily, 28 April 2016.

<www.sciencedaily.com/releases/2016/04/160428132236.htm>)

Michail Gorgiou and Sebastien Chastin, who conducted a systematic review and meta-analysis of all the evidence about how blue space positively impacts health (The Independent 21/3/21) say that blue spaces have been shown to lower stress and anxiety, while boosting people's mood and psychological wellbeing and that researchers studying the effects of blue space delivered through virtual reality have also found that people see it as restorative, fascinating, and preferable to a built-up environment.

These studies show that the negative impacts on mental health caused by replacing views of Blue and Green space with man-made structures should be taken into consideration.

5. Need for the Scheme?

One of the objectives is to remove the roundabouts because they are the only ones on the Euroroute E22, but it is not clear exactly why this is of such importance, particularly as we are no longer part of Europe and some trade is now bypassing Great Britain with direct ferry routes to Ireland. Reduction in commercial traffic on the A55 due to Brexit (a report by the Irish Maritime Development Office says Brexit has cut imports from Britain by 35% in the first five months of 2021) and the Welsh Government's long-term ambition for 30% of the workforce to work from home means that the need for the removal of the roundabout has been reduced. Traffic has increased slightly again because of a reduction in use of public transport due to Covid but this is likely to be temporary. In the light of these new factors this scheme needs to be reassessed before it is given the green light.

Another objective mentioned is to improve flow on the A55 but in relation to the A55 as a whole this scheme would not make a significant difference. There are other pinch points along the A55 that are much worse, such as the Britannia Bridge. I listen to the BBC2 radio traffic reports every day and have never heard the roundabouts mentioned, whereas many junctions further east come up and the Britannia Bridge is a frequent issue. If the new junction allows for accommodation of higher overall volumes of motor traffic, this will induce increases in traffic (increasing carbon emissions) and lead to more traffic build up at the bridge. Also increasing road capacity will be unlikely to prompt a shift away from motor travel.

I have lived in Llanfairfechan for 14 years and even in heavy traffic the roundabout does not take that long to get on to – and during quiet times you often don't even have to stop. It is much quicker than it would be if you had to wait at two sets of traffic lights. It also allows for an easy, quick way to redirect traffic in the event of an incident on the A55, which the new junction would make more problematic.

Unfortunately even though the overarching principles of NCNR5 improvements are sound,

many of the precise details of this scheme on the ground show little actual benefit, a misunderstanding of how the current path and pavements are used by the local community and result in a great loss of vegetation (see some of negative points on my list). It feels like it has been carelessly developed without any inspections in person simply to comply with the Active Travel Act 2013 requiring highway authorities to make enhancements to routes and facilities for pedestrians and cyclists in all new road schemes. Perhaps some changes could be made but even these need looking at more closely with greater consultation of pedestrians and cyclists.

6. Safety

Safety has been indicated as a large factor in why this scheme needs to go ahead however the data for all accidents on the A55 shows that the roundabout in Llanfairfechan is no more dangerous than the type of junction it will be replaced with. The data given by Ramboll in its report was incorrect and talking about people's perceived impressions of danger is not a sound basis for changing the junction. It is typical of the type of 'problem' the promoter is using to justify the scheme. All the rollercoasters in the world would be closed if this was taken into consideration!

In the Design Manual for Roads and Bridges Geometric Design of Roundabouts it says "In 2004 there were about 207,400 personal injury road accidents in Great Britain (Road Casualties Great Britain, 2004). Of these, about 18,000 (8.7%) occurred at roundabouts. The proportion of accidents at roundabouts which were fatal was 0.35%, whereas 0.88% of all other junction accidents and 2.2% of link accidents were fatal. This indicates the effectiveness of roundabouts in reducing accident severity. The average accident cost at a roundabout was calculated to be about 68% of that at other junction types and about 47% of that on links. This suggests that on average, roundabouts are safer than other junction types". This is particularly true at Llanfairfechan as no pedestrians or cyclists use the roundabout.

I personally have never felt like the roundabout was dangerous. At night I find it a much safer option to get onto the A55 as it is well lit and traffic is moving slower, as opposed to using a slip-road where it is often very difficult to see whether fast oncoming traffic has moved over to allow you off the slip-road. If you are in a vehicle with slow acceleration this problem is even worse. Also the new slip road exiting off the A55 in the western direction is very close after a left curve on the A55 which means that the line of sight to the junction is very poor. If there was an accident on the slip road with traffic backing up onto the A55 you would have very little warning.

7. Faults in the consultation process

The consultation process has implied that we have been allowed to voice our opinions but we don't feel that we are being listened to. For example, an option to keep the roundabout was never included in the choices we were given to decide on the design of the junction. The literature supplied to us about the scheme was grossly misleading as it

only highlighted and exaggerated the supposed benefits whilst the negative aspects have been buried in documents that very few will read. Some of the information given to us, such as the accident data, has been incorrect. Just calling the scheme A55 Junctions 15/16 Improvements is very subjective. Many answers to our objections have shown that the people replying have not listened carefully to what we have said, indicate little knowledge of the local area, have no concern about the Climate and Nature Emergency or have patronisingly brushed aside people's concerns as insignificant.

8. Summary

Many of the problems with the new junction come from the hemmed in nature of its location with the steeply rising mountains, the town and the sea. Unfortunately it seems that there is no ideal location for a junction like this to be built at this end of the town, which is probably why the roundabout was put there in the first place, because it is the only viable solution.

The new junction at its planned site will change the east end of Llanfairfechan from an inviting and individual Victorian seaside resort to a discordant and intrusive built up concrete landscape with parts of its highly valued quality and character lost. It will intrude on mountain and sea views from many parts of the town. I do not feel that the Well Being of Future Generations has been taken into account or that the scheme will “build healthier communities and better environments”. Local people's quality of life will go down as they will lose an important bus stop, mature trees, homes, gardens and views and suffer through the stress of a long construction process right on their doorsteps. Average journey times to get onto the A55 from Llanfairfechan will go up because of the traffic lights. Noise, particulate and CO2 pollution will also go up in some areas. The local school will lose its playing fields for two years at a time when childhood obesity is of great concern. Local wildlife and their natural habitats may be irreparably harmed. Wales' contribution to CO2 levels will go up at a time when the planet is in crisis.

The benefits of improving journey times on the A55 through Llanfairfechan and journey time reliability are very small – insignificant when compared to other parts of the A55. Many of us feel that there is simply not enough proof that the Need for the Scheme outweighs all of the problems.

9. Solutions

There are other low cost, environmentally friendly options which could be considered first:

- Improve traffic flow, road noise and perceived safety by having a reduced speed limit to 50mph from the Pen-y-Clip Tunnel to Jct14 (Madryn) as along the Newport stretch of the M4 or the A55 past Colwyn Bay. People tend to speed up as they travel west out of the tunnel and then downhill round the bend towards the roundabout. This would help prevent that. A roundabout sign before the bend

would also be very helpful to give drivers more warning.

- Placing an island between Shore Road East and Penmaenmawr Road turn-off to aid pedestrians and cyclists to cross safely at this point. Or implement some of the active travel route plans without removing the roundabout.
- Reduce the maintenance needed on the roundabout with better planting and perhaps add a sculpture by a Welsh artist, increasing its visibility and making it a distinctive feature on the North Wales route and improve the gateway to our town. This would provide a more welcoming and memorable sight to residents and visitors and assist in building pride in the area, which would have a knock-on benefit in terms of investment and potentially jobs, far more than the urbanisation caused by the new slip roads.