NAME OF THE SCRUTINY COMMITTEE	Communities Scrutiny Committee
DATE OF MEETING	4 December 2012
TITLE OF ITEM	The decision of the Regulatory Department's Transport Service to support the Government's assessment of the route of the Caernarfon – Bontnewydd bypass.
CABINET MEMBER	Cllr. W Gareth Roberts

1. BACKGROUND

- 1.1 The demand by communities, travellers and businesses for a Caernarfon Bontnewydd bypass has been growing for many years. In February 2007, the Ove Arup company was commissioned by the Government to consider transport problems and the options for developing a bypass. Their preliminary WelTAG report (Welsh Transport Appraisal Guidance) was presented in July 2007. The purpose of this report was to explain the relevant traffic problems and, by consulting with stakeholders and listing the options available for their alleviation, to evaluate and to move them forward by means of a WelTAG report (stage 1).
- 1.2 In February 2008, following the work by Ove Arup, a WelTag technical report (stage 1) was published. The purpose of this report was to record and develop options, which had been assessed and develop in the preliminary WelTAG, to move ahead to a first public consultation on the project
- 1.3 Between 1 March and 24 May 2010, the first consultation was held on the four routes, namely the Pink, Purple, Yellow and Brown options. When people were asked which options they favoured, the results were as follows:
 - Purple 53%
 - Yellow 25%
 - Brown 18%
 - Pink 4%
- 1.4 Following the first consultation, it was decided to hold a second consultation. This was held between 1 November 2010 and 24 January 2011. By then, Parsons Brinckerhoff had been appointed as main consultants on behalf of the Government. The reason for holding the second consultation was that the observations and suggestions from the first consultation showed that all the options considered by the Government had not been shown in that consultation. Therefore, the second consultation was an opportunity for people to express their opinion on these options as well. Gwynedd Council was amongst the respondents expressing concerns that not all the information had been presented as part of the consultation.

- 1.5 In the second consultation, 5 options, which were being disregarded, were presented, namely Pink, White, Blue, Brown and a variation of the Brown option. Six other options were presented for the consultation, namely Purple, Yellow, Black, Orange, Red and Turquoise. These routes are shown in **Appendix A.**
- 1.6 As part of the second consultation, officers of Gwynedd's Transport Service challenged the Government's findings and asked for additional information to satisfy themselves that the information presented was sound. One important element of this was to ensure that, after any improvement, the remaining county road network would be protected.
- 1.7 A meeting was held between local Councillors and officers of the Regulatory Department to explain the rationale of supporting the Government's stance on the preferred route and to listen to the views of local Councillors representing areas that will be affected by the development. The meeting was held on 21 December 2010.
- 1.8 After considering the information in detail, asking for further information and challenging the conclusions of the Government and Parsons Brinckerhoff, its consultants, it was concluded that their assessment of the routes presented was sound. The Service sent a letter dated 14 February 2010 to the Government supporting the conclusion of their assessment on technical grounds.

In July 2012, the Welsh Government published the results of the second public consultation on the Caernarfon – Bontnewydd bypass.
The report is quite bulky and is attached as **Appendix B**. It can be seen from this report that the general support for the various route options are as follows:

- Purple 33%
- Yellow 7%
- Black 50%
- Orange 5%
- Red 2%
- Turquoise 2%
- No response 8%
- 1.10 It should be noted that the Purple and Black options are the same between the top of the Felinheli bypass and the proposed Cibyn roundabout.
- 1.11 The publication weighs up the options presented in the consultation and shows the reasons for selecting and protecting the preferred route following the consultation, namely the Purple route.
- 1.12 As a result of that publication, as well as the fact that the Transport Service had supported the Government's opinion that the Purple route is the best option on technical grounds, some in the communities of y Felinheli and Bethel are maintaining that the line should be changed from the preferred Purple to the Yellow route.

2. PURPOSE OF REPORT

- 2.1 The purpose of this report is to explain clearly the technical matters that were considered in replying to the Government's assessment. Also, the matters below, which have been highlighted by members of the Communities Scrutiny Committee, are responded to.
 - Explain the reasons for the Transport Service's conclusion that it agrees with the views of Welsh Government officers that the Purple route is the best one for the Caernarfon Bontnewydd bypass.
 - In your opinion, to what extent would the Purple bypass route affect good quality agricultural land and how much land would be affected.
 - What are the likely costs of the Purple route in comparison to the cost of the Yellow route, namely the Caernarfon Plas Menai part of the bypass?
 - What is your opinion of the number of potential accidents and possible fatal accidents on the purple bypass route compared to the yellow route?
 - What would be the effects of the two routes on adjacent roads such as the back road connecting Bethel and y Felinheli?
 - What would be the possible effects of the bypass on local businesses and homes?
 - What would be the possible effects of the bypass on the landscape
 - What effects could the bypass development have on other parts of Gwynedd Meirionnydd and Llŷn?
 - Are there any risks were the Council to change its views on the route?
 - What, in your opinion, would be the best means of ensuring effective wider discussions on the best route to be finally adopted.

3. EXPLAIN THE REASONS FOR COMING TO THE CONCLUSION THAT THE TRANSPORT SERVICE AGREES WITH THE VIEWS OF WELSH GOVERNMENT OFFICERS THAT THE PURPLE ROUTE IS THE BEST FOR THE CAERNARFON – BONTNEWYDD BYPASS.

- 3.1 Six options were considered as part of the second consultation, namely Purple, Yellow, Black, Orange, Red and Turquoise.
- 3.2 Before the consultation, a WeITAG (stage 2) assessment was conducted on the six options. The assessment results derive from detailed work by the Government's main consultants to consider each route separately and objectively. From these assessments it was clear that the Purple route was the strongest. The scores for each option considered under the WeITAG process were as follows:
 - Purple 21.5
 - Yellow 20.5
 - Black 17.5
 - Orange 17.0
 - Red 17.5
 - Turquoise 17

- 3.3 Other technical matters, as well as the WelTAG assessments, influenced the professional views of the engineers in the Transport Service. The fact that the purple route offers a more direct line, that it is independent of the county road network and is also more attractive to heavy goods traffic are also key considerations. Also, it is of advantage for the main road between the North and the South to be able to avoid the Plas Menai roundabout as there have been a number of collisions there that could be avoided were the purple route adopted. It should also be noted that the Yellow route would require a substantial cutting in the landscape in the vicinity of Plas Menai, with significant landscape and archaeological impacts.
- 3.4 The Purple route is 10.9 km in length and the Yellow route 9.650km. For those travelling between the Faenol Roundabout, Bangor, and Llanwnda, the journey using the Purple rather than the Yellow route would be about 800m shorter.
- 3.5 The Purple route has the advantage of keeping the county road network as it is at present. This is of advantage to those who have to travel between local communities or make short journeys. There are several advantages to having the strategic North / South network independent of the local network and it also offers options for diversions in emergencies or for repairs and maintenance etc.
- 3.6 The fact that the Purple route offers a more direct route, shorter than the yellow route, is of itself likely to encourage heavy goods traffic travelling from North to South to use it rather than using the A4244 from Llys y Gwynt and the B4366 through the village of Bethel. Choosing the Yellow route would mean travelling down hill from the high point of the Felinheli bypass to the Plas Menai roundabout and slowing or even stopping before climbing uphill to join with the Purple route on the Cibyn roundabout. The Yellow route would mean levelling down 30.1m and levelling up 30.1m compared to the Purple route. It is clear therefore that the Purple route is more advantageous in terms of journey time and fuel costs to heavy goods companies and drivers. This is more likely to reduce the number who would chose to use the route through the village of Bethel as an informal bypass for heavy goods traffic.
- 3.7 The proposed junction on the high point of the Felinheli bypass offers a route where the proposed A487 runs directly from the Faenol roundabout to the proposed roundabout at Cibyn. Those travelling to Caernarfon would follow a route away from the major road and connect with the route on the hill down to Plas Menai. This would be a 'grade separated' junction, of high quality in terms of safety, and would mean that the main traffic stream would not have to slow or stop to deal with the junction.
- 3.8 The junction by Plas Menai is a 5 arm junction. In general, safety is compromised the more arms there are on a roundabout. Designing a roundabout usually means trying to achieve a balance between the traffic flow on each arm. On the Yellow route, the main flow would be on two arms, which is not good practice as it would lead to an increase in speed on the roundabout and therefore a substantial reduction in safety. At present, there are a number of collisions on the road leading to the Plas Menai roundabout in its present form. On a technical basis, it would be more advantageous and safer to have a junction on the Purple route rather than a 5 arm junction at Plas Menai.

3.9 It should be noted that the cutting required to connect the Yellow route with the Plas Menai junction is very substantial. It would be 22m deep and would cause a major visual effect. Also, archaeological experts are of the view that there is a substantial likelihood of discovering sites of archaeological importance on part of the Yellow route between Plas Menai and near Crug farm.

In your opinion, to what extent would the Purple bypass route affect high quality agricultural land and how much land would be affected.

3.10 This would be a matter for a public enquiry. It can be confirmed that more land would be required for the Purple rather than the Yellow option. From the Cibyn roundabout to the north, the area of land required for the Purple route would be 152,471 square metres (37.68 acre) and 132,260 square meters (32.68 acre) for the Yellow route.

What are the likely costs of the Purple route in comparison to the cost of the yellow route, namely the Caernarfon to Plas Menai part of the bypass?

- 3.11 The costs of building the Purple option are around £85.8 million whilst the costs of building the yellow option are around £77.3 million (2002 prices). When assessing improvement schemes such a this one, the building, maintenance and tax costs, considered as scheme costs, are balanced by such matters that offer financial benefit such as a reduction in travelling time, a reduction in the running costs a vehicles, the advantage of a reduced carbon footprint and a reduction in costs because of a reduction in accidents.
- 13.12 The benefit figures are considered over a period of 60 years after the opening of the new road. The projected benefits for the routes are £420.2 million for the Purple option and £415.8 million for the Yellow option. It is therefore misleading to consider the building costs only. It is important to recognise that the Purple route is longer and offers other advantages between the top of the Felinheli bypass to the proposed Cibyn Junction.

What is your opinion of the number of potential accidents and possible fatal accidents on the Purple bypass route compared to the Yellow route?

- 13.13 Foreseeing the number of accidents on any scheme is difficult. This is assessed on the average number of accidents occurring on average per kilometre on similar roads. The Purple route is 10.900 kilometre and the Yellow route is 9.65 kilometre long.
- 3.14 There is a cost for every road accident, and, for the assessment purposes, £1,249,890 is anticipated for a fatal accident, £140,450 for a serious accident and £10,830 for a minor accident (2002 prices). Compared with the present network, it is predicted that the Purple route could, over a period of 60years from the opening of the scheme, avoid 899 accidents and that the Yellow route could 986 accidents . The above figures were reached using COBA (COst Benefit Analysis) software and the same number of accidents per kilometre were used for both options namely 0.138 accidents to every million kilometre travelled on the two-lane sections and 0.089 accidents on the on-lane sections, bearing in mind that there are three lanes for the majority of the provision proposed in each option

3.15 One thing is clear, and it has been considered by the Transport Service engineers as part of their considerations, is that the Plas Menai roundabout and the number of accidents occurring there have not been considered in this assessment. Neither has that part of the present road from the roundabout to the top of the present bypass been considered. This, as well as the fact that a higher standard of junction is being proposed to connect the Purple route at the top of the Felinheli bypass, is, in the professional opinion of the Service, offering a choice of road that would, over the whole of its length, be safer.

What would be the effects of the two routes on adjacent roads such as the back road connecting Bethel and y Felinheli?

- 3.16 The effect of the purple route on the County network would be neutral. The network, as it is at present, is protected. As for the back road connecting Bethel and Felinheli, a bridge will carry this connection over the Purple route and so protect it. Also, the entrance to Cefn Coch Farm from the back road is protected. This is confirmed in the statement from the results of the public consultation that was released by the Government in July 2012. Point 9.12 of the statement states 'the Purple/Black Options would sever the minor road link between Bethel and Felinheli. This would be reestablished by combining it with the farm occupation bridge.
- 3.17 The effect of the yellow route on neighbouring roads is much more damaging because it does away with the direct link between the Plas Menai roundabout and the Tyddyn Hen roundabout.

What would be the possible effects of the bypass on local businesses and homes?

3.18 Comprehensive assessments have been carried out by the Governments chief consultants on the impact of the by-pass on economic issues and on the towns and villages.

What would be the possible effects of the bypass on the landscape

3.19 This issue has also been considered in the economic impact report which has been provided on behalf of the Government. It is anticipated that the impact of the scheme will be positive in terms of travelling times, carbon emissions, reduction in accidents and travelling costs. See also 3.18 above.

What effects could the bypass development have on other parts of Gwynedd – Meirionnydd and Ll \hat{y} n?

3.20 There is general agreement that the bypass would have a positive effect on Meirionnydd and Llŷn. The road would be important and key to maintaining and developing employment in the rural areas of Llŷn and Meirionnydd. It could also be a facilitator for developing and protecting jobs associated with Trawsfynydd and the site's connection with Anglesey. The enterprise zones could also benefit from the development.

Are there any risks connected with the Council changing its views on the road's route?

3.21 It is considered that there are considerable risks attached to this matter. The Minister has slipped other capital plans for road improvements lately and in the present financial climate, perhaps there would be some advantages to the Government in slipping this scheme in order to invest in other locations / schemes. Although no certainty can be given as to what will happen, experience tells that it is difficult to get schemes that have slipped back on to the priorities list. This could mean some years of waiting before development work being commissioned and a further period before cutting the first turf and finishing the work. Although the economic opportunities missed during this period cannot be calculated, it could be substantial to the economy of the County as a whole, and to the town of Caernarfon and to the Dwyfor and north Meirionnydd areas in particular, were the scheme to slip for, say, 5 to 10 years.

What, in your opinion, would be the best means of ensuring effective wider discussions on the best route to be finally adopted.

- 3.22 When road schemes are developed, technical as well as amenity and compensation matters are considered. The preferred route is chosen by considering technical matters and using the WelTag structure. These are the matters considered by the Council's Officers when preparing the response.
- 3.23 As the process proceeds there will be further opportunities for the public, landowners and other stakeholders to respond to the Government's proposals. If objections to the preferred route are presented during these stages then a public enquiry will be held at the Minister's request. The justification for the preferred route will be subject to challenge in the public enquiry. Leading the enquiry will be an independent inspector who will consider the justification that is presented against the evidence presented by objectors.