

MEETING OF DÚN LAOGHAIRE-RATHDOWN COUNTY COUNCIL

13 MARCH 2017

PROPOSED BRENNANSTOWN ROAD TRAFFIC MANAGEMENT SCHEME

Report submitted in accordance with Part 8 Article 81 of the Planning and Development Regulations, 2001 (as amended), the Planning and Development Acts, 2000 (as amended) and Section 138 of the Local Government Act, 2001.

1. PC/IC/01/16

In accordance with Part 8, Article 81 of the Planning and Development Regulations, 2001 (as amended) the Council gave notice of the proposed Brennanstown Road Traffic Management Scheme in the Irish Independent on 19th August 2016. Plans and particulars of the proposed Scheme were available for inspection from the 19th August 2016 up to and including the 30th September 2016 at the Council's Planning and Organisational Innovation Department, County Hall, Marine Road, Dún Laoghaire, at the Council Offices in Dundrum Office Park, Main Street, Dundrum, and on the Council's website homepage www.dlrcoco.ie under *dlr consultations*.

In addition, two public information sessions were held on a drop-in basis on the 7th and 8th September 2016 from 4.30 – 8pm in the Council Operations Centre on Ballyogan Road. Information leaflets were distributed by the Council to the residents in the area inviting them to attend these sessions. During these consultation sessions, the proposed scheme drawings were displayed and members of the public were invited to comment or raise queries directly to representatives from the Council and their specialist Consultants (AECOM).

Submissions and Observations with regard to the proposed development could be made up to 5pm on the 14th October 2016.

2. SITE LOCATION AND DESCRIPTION

The site location is the full extent of Brennanstown Road between the junction of Bray Road/Johnstown Road and the junction of Glenamuck Road/Claremont Road/Brighton Road. The road is approximately 1.9km long. The majority of Brennanstown Road has a very attractive and desirable semi-urban /semi-rural character with a sylvan nature and historic character. There are two protected structures along the road which act as the road/property boundary (Brennanstown House Outhouses/Stables/Yard Buildings and Glendruid House Gated Entrance).

The majority of the road is bounded on both sides by low density individual detached residential properties, but three medium density residential developments (Carraig Glen, Holmwood/Lambourne Wood and Carrickmines Wood) and one lower density residential development (Brennanstown Vale) are also accessed off the road. Planning permission has been granted for one high density residential development along the road, at Barrington Tower.

Currently a footpath is provided along one side of the road for the majority of the route; however, it terminates for a section of 170m due to road width restrictions. The footpath, in general, is narrow in width, approximately 1 – 1.5m throughout Brennanstown Road with the condition of the footpath varying from adequate to poor. In parts, the footpath is at the same level as the road, offering pedestrians no protection from passing vehicles. The speed limit on the road is 50km/h, and the road has an Annual Average Daily Traffic (AADT) of approximately 4,800 vehicles. The road is located between the N11 and M50 motorway, and this leads to some rat running along the route.

3. ZONING AND OTHER OBJECTIVES:

The proposed traffic management scheme is within the full extent of Brennanstown Road. The majority of the lands on either side of the road are zoned 'A' – 'To protect and-or improve residential amenity', and the road also has a section with a boundary to Cabinteely Park, and a short section with a boundary to the Cherrywood SDZ lands.

The provision of a Traffic Management Scheme for Brennanstown Road is included under Policy **ST25: Roads** of the County Development Plan 2016-2022 as a stated objective:

It is an objective of the Council to preserve the existing character of Brennanstown Road whilst undertaking a Traffic Management Scheme that will:

- reduce traffic speeds and improve road safety.
- provide improved facilities for vulnerable road users.
- reduce through traffic.
- facilitate the development of zoned lands.

To limit development along the Brennanstown Road to minor domestic infills and extensions until a Traffic Management Scheme for the area has been completed and its recommendations implemented.

The Brennanstown Road Traffic Management Scheme may determine the future development potential of the area and therefore it is also an objective of the Council to limit developments along Brennanstown Road to minor domestic infills and extensions until the Scheme has been completed and its recommendations implemented (Refer to SLO No. 130 Maps 7 and 9).

The proposed scheme utilises the existing road area to improve the overall safety of the road and in particular of vulnerable road users.

4. DESCRIPTION OF THE PROPOSED WORKS

The proposed scheme covers the length of Brennanstown Road. The existing road width varies between 4.5 – 6m. It is proposed to provide a standard road width of 5.5m where possible, as recommended in the DMURS standards for local streets. However, this will not be possible at some locations due to lack of road space and the existing road width (as low as 4.5m) will have to be maintained. A footpath will be provided over the entire length of the scheme.

It is proposed to provide a number of traffic calming measures, including raised tables and a roundabout. Overall, the scheme will provide a general upgrade of pedestrian facilities including dropped kerbs and tactile paving. In addition, a shuttle system will be provided along a section of the road between Lehaunstown Lane and the Egyptian Embassy. This will consist of a traffic light system allowing one-way running over a distance of 260m. The carriageway width through the shuttle system will be 3.25m. A shared pedestrian/cycle path will be provided on the southern side of the shuttle. This varies in width, but is generally between 2.25 – 3m.

Travelling southbound from the Brennanstown Road/Bray Road junction, a new footpath will be provided on the eastern side of the road, relocated from its existing position on the western side of the road. The footpath will remain on this side through the 90° bend south of Lehaunstown Lane. Beyond Lehaunstown Lane, where there is currently no footpath provision, a new shared pedestrian/cycle path will be provided on the southern side of the road through the length of the shuttle system. Travelling westbound from the shuttle, pedestrians will be provided with a crossing facility to the existing footpath on the northern side of the road. These facilities will be upgraded as part of the scheme, with new surfaces and kerbing where required and where space permits.

Due to the road width constraints, dedicated cycle facilities have not been provided. It is proposed that the eastbound cyclists will travel on road through the shuttle system, which is downhill, and will allow the cyclist to travel at an appropriate speed to travel with vehicles. For westbound cyclists, due to the uphill topography, cyclists will be directed to travel on the shared surface. This will allow a more comfortable cycle for cyclists, while not delaying traffic. A 3.5T HGV weight restriction ban is proposed as part of the scheme; subject to the necessary statutory approvals.

In summary, the main provisions of the proposed Traffic Management Scheme are as follows:

- Provision of a footpath on one side of the carriageway over the entire length of Brennanstown Road.
- A number of traffic calming measures including:
 - roundabout at the Brennanstown Road/Lambourne Wood Junction
 - raised table at Brennanstown Road/Carraig Glen Junction
 - raised table at Brennanstown Road/ Lehaunstown Lane Junction
 - raised table at Brennanstown Road/ Barrington Towers Junction
 - raised table at Brennanstown Road/ Brennanstown Vale Junction
 - raised table at Brennanstown Road/ Carrickmines Wood Junction
- General upgrade of all pedestrian facilities including dropped kerbs and tactile paving.
- A traffic shuttle system between Lehaunstown Lane and the Egyptian Embassy, consisting of a traffic light system allowing one-way running over a distance of 260 metres.
- Ramp either side and on approach to the shuttle system, proposed in order to slow vehicle speeds before entering the shuttle system
- A shared pedestrian / cyclepath will be provided on the southern side of the above shuttle system.
- 3.5T HGV weight restriction ban

The works are shown on the Part 8 Drawings and can be viewed via the link on the Council website.

https://dlrcoco.citizenspace.com/infrastructure-climate-change/brennanstown-road-traffic-management-scheme/supporting_documents/Brennanstown%20Road%20Traffic%20Management%20Scheme%20Part%208%20Drawings%20August%202016.pdf

It is considered that the scheme proposals offer a balance between the provision of optimum capacity, considering the development objectives, and the provision of adequate quality of service for all road users, while preserving the existing character of Brennanstown Road.

5. ENVIRONMENTAL ASSESSMENT

The proposed development is subject to the Guidance for Planning Authorities on Appropriate Assessment of Plans and Projects in Ireland (Department of Environment, Heritage and Local Government, November 2009), and the Planning and Development (Amendment) (No. 3) Regulations, 2011. These require that screening is carried out for all projects to examine if any impacts are likely on Natura 2000 sites, that is, Special Areas of Conservation (SAC's) and Special Protection Areas (SPA's).

Aecom has reviewed the proposed development with respect to the requirement for an Appropriate Assessment and submitted their report. The 'Screening for Appropriate Assessment' report is included in VOLUME 2 of the Part 8 documents, and can be viewed via the link on the Council's website homepage www.dlrcoco.ie under *dlr consultations*.

The report concluded that "there will be no likelihood of significant effects on any European sites and no impacts to European site integrity, either alone or in combination with other plans or projects. Therefore it is our view that an Appropriate Assessment is not required."

Although an EIS is not required for this road improvement scheme, it was considered that a comprehensive Part 8 Environmental Report should be prepared, together with the Part 8 Drawings. The Environmental report is included as 'VOLUME 1' of the Part 8 documents. In addition, a comprehensive 'Archaeological and Built Heritage Assessment' of the proposed scheme was prepared and is included in 'VOLUME 2' of the Part 8 documents.

6. IMPLICATIONS OF THE PROPOSED DEVELOPMENT FOR THE PROPER PLANNING AND SUSTAINABLE DEVELOPMENT OF THE AREA:

Having regard to the above, the proposed development is in accordance with the provisions of the 2016-2022 County Development Plan, and with the proper planning and sustainable development of the area.

7. REPORTS FROM COUNCIL DEPARTMENTS AND SECTIONS

Libraries: By correspondence dated the 13TH June 2016 confirmed that they have no objection to the scheme.

Housing Department: By correspondence dated the 19th June 2016 stated that they have no objections to the scheme.

Traffic Section: By correspondence dated the 21st June 2016 stated that they have no objections to the scheme.

Corporate Communications and Governance Department: By correspondence dated the 13th June 2016 stated that they have no objections to the scheme.

Municipal Services Department - Drainage Section: By correspondence dated the 15th June 2016 stated that they have no objections to the scheme, and noted that the upgrading of the existing watermain and the provision of a foul sewer should be considered in consultation with Irish Water. Surface water drainage details should be agreed at detailed design stage.

Planning & Organisational Innovation: By memo dated 15th June 2016 welcomed the scheme with a few minor comments that were subsequently incorporated in to the final report.

Parks Department:

The Parks Department had no objection to the scheme provided that they would have input to the design of the landscaped areas at detailed design stage.

Architect's Department:

The Architects Department stated that they have no objections to the scheme provided that materials for elements such as and including raised tables, new footpaths, street furniture lighting etc. will be agreed with Architects Department and Conservation Officer at the detailed design stage.

Response to Reports from Departments and Sections:

All recommendations from the internal Departments will be taken into consideration during the detailed design stage. Meetings will be held with all the relevant Departments and Sections, during the detailed design and construction stages.

8. STATUTORY BODIES / ORGANISATIONS

A copy of the Part 8 Environmental Report and Drawings were sent out on the 23rd August 2016 to the following:

An Taisce
Heritage Council
National Transport Authority
Transport Infrastructure Ireland
Department of Housing, Planning, Community and Local Government. (*Planning Section*)
Irish Water

Replies were received from the following statutory bodies and organisations:

8.1 Transport Infrastructure Ireland (TII)

Submission: TII had no comment to make

8.2 Irish Water (IW)

Submission: IW noted that the proposed scheme does not impact on their services. However there is an opportunity to upgrade the existing 3"/4" cast iron watermain and replace the existing 300mm AC watermain during the course of the works. IW also noted 'There is no foul sewer in the section of Brennanstown Road subject to the Traffic Management Scheme. It should be noted that the completion of the Traffic Management Scheme will lead to the opening up of development potential. Deficiencies in or absences of Water and Foul Drainage infrastructure will then need to be addressed in the future.'

9 SUBMISSIONS / OBSERVATIONS

9.1 Submissions

In accordance with Part 8, Article 81 of the Planning and Development Regulations, 2001, (as amended), the Council gave notice of the proposed development in the Irish Independent on 19th August 2016, indicating that submissions and observations with regards to the proposed development could be made up to and including the 14th October 2016.

Site notices (in the prescribed format) were also erected and maintained at 4 locations along the proposed development (Brennanstown Road) for the prescribed period.

There were 556 no. submissions/observations received within the stipulated time period and a list of persons/bodies who made submissions is included in Appendix A.

There were two methods of making a submission, either in writing (by post or hand delivered) or by using the Council's online internet service 'Citizen Space'. A number of people made duplicate submissions using both methods of submission. There were 520 submissions delivered by hand or by post, of which 489 were a postcard type submission. There were 36 online submissions via 'Citizen Space'.

Responses to the comments/issues raised in Public Consultation are set out below. Many of the same issues were repeated in a large number of different submissions. For ease of reference the pertinent issues raised in the various submissions received have been separated into four general headings as shown below, so as to avoid repetition of the same responses:

- Section 1: Traffic
- Section 2: Vulnerable Road Users
- Section 3: Operation of the Shuttle System
- Section 4: Facilitate the Development of Zoned Lands

There was also a large submission made by Kieran O'Malley & Co.Ltd on behalf of 'Cabinteely & District Residents Association. This submission contained a very detailed technical submission from '*Trafficwise Traffic & Transportation Solutions*', and due to its very detailed nature this submission has been addressed separately in Section 5 below.

There was a submission made by a development consultant who represents a developer of lands located along Brennanstown Road. This has not been addressed in this Public Consultation report as this report is based on submissions made from members of the general public.

A submission was made on behalf of the Brennan Family in relation to their property at Brennanstown House. This property lies mainly within the proposed shuttle system, and the issues deal mainly with specific issues relating to access and potential difficulties with the operation of the shuttle system. It is considered that all of these issues can be satisfactorily dealt with at the detailed design stage of the scheme.

There was a submission by '*Prendiville Planning and Research Consultants*' on behalf of Carrickmines Wood Residents Association and also a submission by '*O'Dwyer Real Estate Management*' on behalf of Carrickmines Wood Management Co. Ltd. The issues raised in these submissions have been included in the responses in Sections 1 to 5 below.

9.2 Submissions with summary of issues raised and responses:

Section 1 - TRAFFIC

1.	<i>Issues</i>	<i>Responses</i>
1	There is no evidence provided to support that the works will reduce through traffic due to traffic calming measures.	As part of this traffic management scheme, a micro simulation VISSIM model was developed. This included Brennanstown Road as well as surrounding roads of the network. The model included a signalised shuttle system. The modelling analysis demonstrates that through traffic will divert off Brennanstown Road utilising other roads within the local road network.
2	The scheme does not address existing delays at Cabinteely Village and Carrickmines Cross. It is felt that traffic congestion needs to be dealt with before the scheme is adopted.	An initial assessment of the Brennanstown Road/Cabinteely Village junction and the Brennanstown Road/Glenamuck Road junction was undertaken as part of the VISSIM Model analysis. Congestion in the wider area was not assessed as this scheme was limited to Brennanstown Road.
3	The scheme will create a 'rat run' through The Park residential estate.	A Micro-simulation model undertaken showed an element of 'rat-running'; as with all traffic modelling analysis methods, this is not 100% accurate, however, the area will be monitored and if 'rat running' becomes an issue, measures will be put in place to address this.
4	In relation to traffic speeds, if a speed reduction is required, why has the council not considered lowering an already adhered to limit?	Brennanstown Road is categorised as a distributor road with a speed limit of 50kph. This is the default speed limit for 'built-up areas' and is considered to be appropriate for the existing road environment. The rules for reducing an existing speed limit are quite prescriptive, and would require appropriate engineering measures to be implemented to ensure that the speed limit would be appropriate to the reduced speed. The proposed traffic calming measures are considered to be appropriate for a 50kph speed limit, and a general lowering of the speed limit is not recommended. A speed limit of 30kph is proposed for the shuttle.
5	Residents were wondering whether it has been taken into consideration the likely increase in traffic along Brennanstown Road as a result of the Cherrywood development.	The Cherrywood SDZ document states that Brennanstown Road "cannot be upgraded to provide adequate access to Cherrywood without seriously undermining the environmental quality of the area." The Cherrywood SDZ provides for an access to Brennanstown Road to serve a limited number of units contingent on traffic calming, so there will be very limited direct traffic access to Brennanstown Road from the Cherrywood development. The traffic modelling allowed for regional growth in the surrounding area.
6	There were concerns with regard to the traffic surveys, when they were undertaken and also it	Response: The traffic surveys were undertaken in January 2016, during school operating days. Additional surveys were made available to AECOM from Dún

	was felt that journeys from Cabinteely Village were not counted.	Laoghaire Rathdown County Council from a previous scheme carried out along Brennanstown Road in October 2015. These were also during school operating days. These surveys included journeys from Cabinteely Village.
7	There is no estimation of the likely speed reduction that might result from the proposed traffic management scheme.	The proposed traffic calming measures on Brennanstown Road are designed with an aim to considerably reduce traffic speeds along the length of the road. These measures include a roundabout feature, ramps, raised tables and adequate kerb heights. However, quantification of speed reduction can be made through speed surveys that can be undertaken after they delivery of the scheme, to identify additional traffic calming measures if needed.
8	Several large roundabouts are proposed which are not appropriate in urban areas and on small rural road such as Brennanstown Road. These roundabouts, particularly the one at Lambourne Wood will present difficulties for cyclists and pedestrians.	One 18m diameter wide roundabout is being proposed at Lambourne Wood. Crossing facilities will be provided for pedestrians, and cyclists will be adequately accommodated on road with reduced traffic speeds
9	The scheme envisages up to 2 new roundabouts and 3 new sets of traffic lights increasing congestion on the road and making access to estates such as Carraig Glen almost impossible.	The scheme proposes one new roundabout at Lambourne Wood estate and one new set of traffic lights which will be located at the proposed shuttle system.
10	One resident was concerned that a secondary access from Lehaunstown Lane serving a limited number of units was not given any consideration to this eventuality.	This secondary access was included within the model.
11	A number of photos were submitted showing queuing on Brennanstown Road.	There were a number of photos attached to some of the submissions showing queuing back from Cabinteely Village. The majority of these photos showed vehicles queuing back to the Carraig Glen estate, which is approximately 120m, which is approximately 20 vehicles. One photo, showed queueing which exceeded past Carraig Glen and down towards Lambourne Wood estate –This photograph was taken on the 09th September 2016, a day that Dublin Bus was on strike.
12	The drawings indicate at the entrance to Carrickmines Wood that the footpath is extending past the existing boundary line. Have the owners of this property been contacted in relation to same and given permission.	The Council will engage with all affected property owners to achieve any necessary agreements and to ensure that all proposed works are carried out in accordance with normal practice.
13	It is proposed to use roundabouts at Lambourne Wood and Lehaunstown entrance. Why are they considered appropriate for this section and raised	It has been proposed to implement a roundabout at Lambourne Wood estate as there is sufficient width available to do so. A roundabout at Lehaunstown Lane has not been proposed as part of this scheme due to width restrictions,

	tables considered for entrance to residential developments in other sections?	however, should the land be developed, a roundabout option could be considered.
14	Will this plan increase traffic on Cornelscourt Hill Road and into Cornelscourt Village. Can that also be addressed?	Modelling analysis undertaken indicates that additional traffic will be placed on Cornelscourt Hill Road, which is categorised as a Regional Road.
15	What method was used to record 'rat running' and is this 100% accurate.	A micro simulation model was used to assess 'rat running'. As with all traffic modelling analysis methods, this is not 100% accurate, however, the area will be monitored, in particular, The Park residential estate, and if 'rat running' becomes an issue, measures will be put in place to address this.
16	The new set of lights will not deter through traffic and the situation will get even worse with more congestion in the village and further congestion at the new lights. Also there will be more noise with traffic starting and stopping at the lights.	The results of the Micro – simulation model shows a level of diversion with the shuttle system in place. The additional noise resulting from the shuttle system will be in keeping with general traffic noise from other junctions; and therefore will not be excessive.
17	Some residents highlighted that a one-way system would have given more space to cyclists and pedestrians and that this should be considered as an option.	A study undertaken in 2007 for Dun Laoghaire Rathdown County Council included an option for a one way system along Brennanstown Road. However, after Public Consultation process, this option was ruled out and a signalised shuttle system was the preferred option.

Recommendation: No change to scheme

Section 2 - VULNERABLE ROAD USERS

	Issues	Responses
1	1. Concern that the footpath and carriageway would remain sub-standard following the works, and that they do not meet the minimum width requirements as set out in the Design Manual for Urban Roads	DMURS specifies a road carriageway width of 5.5m for local streets. It is proposed to provide a standard road width of 5.5m where practically possible. Due to lack of available road space, the existing carriageway width is proposed to be maintained in certain places along the road.

	and Streets (DMURS).	<p>In terms of the footpath provision, due to width restrictions, the width that can be achieved is between 1.3 and 1.5m and this is achieved along the majority of the route. The width does increase in some sections to 1.8m; however, this is not achievable for the majority of the road length. Although it is not in compliance with DMURS, the width restrictions do not allow a footpath of 1.8m along the majority of road.</p> <p>Current footpath condition is poor along the majority of Brennanstown Road. There is a lack of footpath designation, separate by the trafficked road carriageway, with kerb heights very low to non-existent, and footpath widths as narrow as 0.8m. There is also a section of road, 170m in length, where currently there is no footpath provision. This scheme proposal will provide an enhanced pedestrian facility along Brennanstown Road that will improve the current sub-standard facility, as shown in Table 1.1 above.</p>
2	Concern that there is no provision made for the safe movement of cyclists in the scheme.	<p>Due to road width restrictions, it is not possible to provide cycle lane facilities along Brennanstown Road. Cyclists will be accommodated on road and will be accommodated through the signalised shuttle system via a shared cycle/footpath when travelling westbound uphill and on road when travelling eastbound downhill. With traffic reducing measures proposed along the length of Brennanstown Road, including narrow road carriageway, speed ramps, roundabout features and new footpaths with standard kerb heights, traffic speeds (currently an average of between 30 – 40 km/h) are anticipated to reduce, and thus cyclists can be accommodated on road.</p>
3	Residents feel that the report failed to identify the type and number of vulnerable road users, and has failed to account for the actual need for the users of the very scheme targeted at them.	<p>One of the key aims of the scheme is to provide improved facilities for vulnerable road users. This road is a suburban road and is predominantly residential in type while it presents a sylvan roadscape. The proposed provision of enhanced pedestrian facility along the vast majority of the road length offers a significant increase in terms of vulnerable user safety, accessibility and personal security.</p>
4	Residents feel that there is very adequate land on both sides of the road to build a functional service road with two full traffic lanes plus footpaths and cycle lanes in each direction.	<p>The majority of Brennanstown Road has a very attractive and desirable semi-urban /semi-rural character and has a very attractive sylvan nature and historic character. There are also two protected structures along the road which act as the road/property boundary (Brennanstown House Outhouses/Stables/Yard Buildings and Glendruid House Gated Entrance).The provision of maximum quality of service for all road users requires encroachment into and acquisition of adjacent lands, mainly private. The major constraints considered are:</p> <ul style="list-style-type: none"> a) the historical and heritage value of the road boundary walls; and b) the nature and type of trees, located in the adjacent lands, that offer a significant sylvan road scape; the preservation of the existing Brennanstown Road character is set out in the DLR County development plan and, thus, it consists one of the key scheme objectives.

<p>5</p>	<p>The proposals ignore the Carrickmines Wood end of the road with regard to footpath improvements and traffic speeding.</p>	<p>Due to overall width restrictions and unavailability of land at this time, it is not possible to improve the width of footpath. In terms of improving traffic speeds in this section, raised tables are being proposed at the junctions with Carrickmines Wood and Brennanstown Vale.</p>
<p>6</p>	<p>Residents asked the question as to why the footpath is being moved to the other side of the road where there are fewer houses. Similarly, they felt that the footpath was on the wrong side of the road in the shuttle system, as this side of the road is extremely dangerous and will cause fatalities.</p>	<p>The alignment and positioning of the proposed footpath to the eastern/southern side of the road from Cabinteely Village down to the end of the shuttle system section provides optimum visibility for the residents egress from residencies. The shared footpath/cycle path is being located on the southern side of the road through the signalised shuttle system. The addition of the speed reduction hump at Lehaunstown Lane, the speed reduction hump on approach to the signals as well as the signals themselves are all physical elements that target to slow vehicles down through this section. Additional similar elements are also proposed to be located along the rest of Brennanstown Road with the aim to slow vehicles down along the length of the road.</p>
<p>7</p>	<p>There is no mention of how children and elderly people will be accommodated cycling through the shuttle system, in particular, travelling eastbound on road..</p>	<p>Cyclists travelling eastbound through the shuttle will be accommodated on road (reduced speeds), and travelling westbound will be accommodated off road on the shared facility</p>
<p>8</p>	<p>The Environmental Report refers to a HGV ban although such a ban is unrelated to the Part 8 works. It is not clear how the ban would affect the operation of Doyles Nursery/Garden Centre, which may generate HGV trips within the study area.</p>	<p>Local access for HGV traffic will be accommodated.</p>
<p>9</p>	<p>No evidence is produced in the environmental report to indicate that the proposed scheme will result in an improvement in road safety.</p>	<p>A number of traffic calming measures are proposed on Brennanstown Road aiming to reduce traffic speeds along the length of the road. These measures include a roundabout junction, speed reduction humps, raised tables and safe kerb heights. The pedestrian facility along Brennanstown Road is also proposed to be improved.</p> <p>An extract from DMURS highlights results of a speed survey undertaken with various traffic calming measures in place. The document states: <u>'The presence of deflections, such as ramps, had a strong influence on reducing speed. Results also showed that other 'softer' measures, such as a sense of enclosure, surveillance and activity created by a continuous line of development fronting directly onto the street, have a strong influence on lowering speed. Overall, the results demonstrated a strong trend whereby as the frequency and strength of the psychological and physical design measures increased, the lower the operating speed and the greater the level of compliance with the posted speed limit.'</u></p>

10	The proposed scheme fails to achieve the objectives set out in Policy ST25 of the County Development Plan and would be contrary to proper planning and sustainable development of the area.	Policy ST25 states that <u>"It is council policy, in conjunction with other transport bodies and authorities such as the TII and NTA, to secure improvements to the County road network – including improved pedestrian and cycle facilities."</u> The proposed scheme is in line with objectives set out in Policy ST25 of the County Development Plan. Pedestrian facilities are proposed to be enhanced and improved as part of this scheme. With traffic reducing measures in place, cyclists can be safely accommodated on road.
11	The existing plan describes four crossing points for pedestrians as they negotiate Brennanstown Road.	Crossing facilities that enable pedestrians to cross the road safely are proposed to be located throughout Brennanstown Road
12	Why has no consideration been given to compulsory purchase orders along the entire section to improve facilities for all road users.	The majority of Brennanstown Road has a very attractive and desirable semi-urban /semi-rural character and has a very attractive sylvan nature and historic character. There are also two protected structures along the road which act as the road/property boundary (Brennanstown House Outhouses/Stables/Yard Buildings and Glendruid House Gated Entrance). The provision of maximum quality of service for all road users requires encroachment into and acquisition of adjacent lands, mainly private. The major constraints considered are: a) the historical and heritage value of the road boundary walls; and b) the nature and type of trees, located in the adjacent lands, that offer a significant sylvan road scape; the preservation of the existing Brennanstown Road character is set out in the DLR County development plan and, thus, it consists one of the key scheme objectives.
13	It should be noted that pedestrians walking from the village would have to walk from the village on the footpath on the right side of the road as far as Doyle's Nursery and then navigate the new proposed roundabout to get to the new proposed footpath on the other side of the road.	Pedestrians walking from the village would remain on the same side of the road until the end of the shuttle section where they will be provided with a crossing to the northern side of the road.
14	The shuttle system will be dangerous for eastbound cyclists as they will be sharing a 3.25m carriageway with cars. This will be frustrating for motorists and dangerous for cyclists given the limited time to traverse the shuttle.	It is recommended that traffic travelling through the shuttle system will travel at a speed limit of 30kph, therefore cyclists will be safely accommodated travelling downhill at 30kph or below. Also, the shuttle system signal operation will adjust accordingly based on information that will be received from detector loops that will be embedded in the road surface along the section, which will detect vehicles/cyclists within the shuttle section.
15	There is not adequate space for vehicles to pass cyclists in the shuttle.	The proposed width of 3.25m is deemed technically appropriate for a shared carriageway. Vehicles will share the carriageway with cyclists through the shuttle system section and will not pass cyclists in this section.
16	Where a shared space cannot be avoided then a 3m	This section of road, 170m in length, currently has no footpath provision. This

	minimum width is required – this shared space is therefore sub-standard.	scheme proposal will provide an enhanced pedestrian/cycle facility along this section to what is currently provided.
17	Roundabouts are proposed that are not appropriate in urban areas and small rural roads like Brennanstown Road – these will present difficulties for pedestrians and cyclists, are being provided purely to allow access to the Doyle’s Nursery land for development.	Crossing facilities are provided on all arms of the proposed roundabout. Traffic volumes are very low and pedestrians will be able to cross through this roundabout safely. With traffic calming measures along Brennanstown Road, traffic speeds will be reduced. Cyclists will be accommodated on road through the roundabout.
18	Plan does not meet the requirements of the cycle route between Cabinteely Village and Lehaunstown Lane in the NTA Dublin Cycle Scheme.	The section between Cabinteely Village and Lehaunstown Lane along Brennanstown Road is proposed as a Feeder route and is classed as a route that connects between primary and secondary zones and/or cycle routes within local zones. With traffic management measures proposed along Brennanstown Road, cyclists will be accommodated on road; as this is a Feeder Route, this will meet the requirements in the NTA Dublin Cycle Scheme.

Recommendation: No change to scheme

Section 3 OPERATION OF THE SHUTTLE SYSTEM

Issues		Reponses
1	How will emergency vehicles negotiate the traffic light section?	The shared path will be incorporated with mountable kerbs in order to maintain two way access for emergency vehicles through the shuttle system, however, emergency departments, Ambulance Service, Fire Brigade Service and An Garda Siochana will be made aware of this alteration to the road layout.
2	It will not be possible to see from one end of the shuttle system to the other. Inevitably someone breaking the lights or going slow will meet oncoming traffic.	Vehicles that are not able to see from one end of the shuttle to the next are deterred from breaking the lights. In terms of the traffic signals, detectors in the road pavement will be able to detect vehicles within the carriageway and so the traffic lights will be programmed accordingly in order to avoid possible collisions.
3	Residents are concerned that noise may be an issue with vehicles going over ramps, slowing down and starting back up again at the shuttle system.	Traffic noise resulting within the shuttle system will be in keeping with general traffic noise from other junctions in the surrounding area in general, and therefore will not be excessive. The use of ramps will slow vehicles on approach to the shuttle system and are an important feature in traffic calming; the noise created by vehicles travelling over these ramps will not be excessive.
4	What consideration has been given if the lights were to fail or if a driver were to run a red light or incur a breakdown in the shuttle system?	The traffic lights will be on a high priority maintenance list within Dún Laoghaire Rathdown County Council, therefore, should the lights fail there would be a quick response to fixing these. There are a few pull in bays along the shuttle section where vehicles can pull in - should a vehicle break down within the shuttle section, they can use one of these pull in bays. Mountable kerbs will also be included so that vehicles can mount the shared path in such a circumstance.

5	The crossing at the eastbound side of the shuttle should be a toucan crossing.	This will be dealt with at Detailed Design Stage.
6	The scheme gives no information on the timing of the light changes, but such schemes typically have long waiting times, causing delay. It would be several minutes before a light change causing traffic to build up.	A minimum green time of 8 seconds and a maximum green time of 15 seconds was used for the analysis, however, this can be increased if necessary. An intergreen of 40 – 45 seconds is necessary; therefore a total cycle of 106 seconds is proposed.
7	The proposed scheme predicted that the shuttle will add just 68 seconds to a car travelling from Ballyogan Crossroads to Cabinteely Village. This is not credible.	The VISSIM model reported that, on average, the delay will be an additional 68 seconds.
8	A one-way system was used for about four months which resulted in increased congestion and lengthy tail backs on both sides.	There will be a delay to vehicular traffic as a result of the signalised shuttle system. The operation of a temporary traffic management system is not as advanced as a permanent shuttle system operation. Typical temporary light systems operate on fixed time settings. The Permanent traffic light system proposed will operate with detector loops and employ optimised timings to accommodate the varying traffic volumes throughout the day.
9	Bicycles and pedestrians do not mix well, this mix is not recommended by DMURS or the National Cycle Manual.	Noted. It is stated in the National Cycle Manual that shared facilities should not be considered as a first option. It outlines that where shared facilities cannot be avoided, there are a number of considerations to follow that will help both cyclists and pedestrians to be aware of the others presence. DMURS does not include any standards on shared pedestrian/cycle paths. DMURS does, however, refer to the NCM in terms of providing for cyclists.
10	The shared space at the eastbound side of the shuttle may attract cyclists, especially those travelling with children, to use the shared space travelling eastbound. This should be factored into the design to permit it.	The shared path does not have adequate width to allow cyclists to travel in both directions.

Recommendation: No change to scheme

Section 4 FACILITATE THE DEVELOPMENT OF ZONED LANDS

Issues

Responses

1	There is concern that the report fails to assess the potential impact of new residential development on Brennanstown Road.	A VISSIM micro simulation model was developed for this scheme. As part of this model, various traffic conditions were assessed through the network. Traffic was increased and test runs were ran in order to see the traffic conditions through the network with the shuttle system in place.
2	Residents feel that consideration of a link road to access development sites as an alternative to Brennanstown Road has not been investigated by planners at Dun Laoghaire Rathdown County Council.	The development of a link road is not in the current development plan for Dún Laoghaire Rathdown County Council.
3	How many units are expected to be developed if the proposed scheme is implemented?	It is an objective of the current development plan that this scheme will facilitate the development of zoned lands. Results outline that between 700 – 1000 units could be developed, however, this would be subject to individual planning applications both on Brennanstown Road and on the surrounding road network.
4	The development land that could be unlocked could use the new road network being constructed as part of the Cherrywood SDZ.	The Cherrywood SDZ provides for an access to Brennanstown Road to serve a limited number of units contingent on traffic calming.
5	With regard to the development in the region of 700 – 1000 units, no real planning reasons or other objective basis is provided to support this assertion.	It is an objective within the current development plan for Dún Laoghaire Rathdown County Council (2016-2022) to facilitate development of zoned lands. Results of a micro – simulation model indicate that between 700 – 1000 units could be facilitated; however, this would be subject to individual planning applications both on Brennanstown Road and on the surrounding road network.
6	It is suggested by many residents that this scheme is being proposed only to further sanction the development on the road.	This traffic management plan has four objectives as set out in the current development plan, these are: <ul style="list-style-type: none"> • reduce traffic speeds and improve road safety. • provide improved facilities for vulnerable road users. • reduce through traffic. • facilitate the development of zoned lands.
7	No mention is made as to how construction traffic will access the development sites..	A suitable temporary traffic management plan will be adopted
8	There was a concern raised over the trip rates and potential journeys that would result from the developments. It stated: 'Assuming 850 houses at 1.5 cars per house = 1,275 cars, also assuming a	The trip rates used for the below described assessment were taken from two recent development applications on Brennanstown Road, which were taken from the TRICS database. Therefore, taking this example of 850 houses, average trip rates from the two developments for the AM and PM peak hour are as below:

	<p>minimum of at least 4 journeys per day (i.e. out and back twice) = 5,100 extra cars on the road daily, which combined with the existing estimate of 4,800 per day reduced by 12.5% to 4,200 totals 9,300 vehicles per day, representing an estimated increase of 221%.'</p>	<table border="1" data-bbox="992 116 2045 220"> <thead> <tr> <th>Peak</th> <th>IN</th> <th>OUT</th> </tr> </thead> <tbody> <tr> <td>AM Peak</td> <td>0.174</td> <td>0.4</td> </tr> <tr> <td>PM Peak</td> <td>0.412</td> <td>0.25</td> </tr> </tbody> </table> <p>AM peak hour: total trips of $(850 \times 0.174) + (850 \times 0.4) = 488$ trips. PM peak hour: total trips of $(850 \times 0.412) + (850 \times 0.25) = 563$ trips.</p> <p>Journeys outside of the peak hours are generally a lot lower than the peak times. Although these are only for the AM and PM peak hour, they are considerably less than the assumptions made above</p>	Peak	IN	OUT	AM Peak	0.174	0.4	PM Peak	0.412	0.25
Peak	IN	OUT									
AM Peak	0.174	0.4									
PM Peak	0.412	0.25									
<p>9</p>	<p>With the current population density of 420 houses, it can take 15 minutes to get from Carraig Glen to the N11 intersection at peak times or if there is an event at the church. During the bus strike the queue was past Lambourne Wood/Holmwood. What will occur with another 1000 units?</p>	<p>As shown in the example in Comment 8 above, additional vehicular trips during peak hours are not deemed excessive.</p>									
<p>10</p>	<p>Comments 3 and 4 - reduce through traffic and facilitate the development of zoned lands - how any "halfwit" could think that developing the zoned lands could lead to a reduction of the through traffic beggars belief.</p>	<p>Objectives 3 and 4 are separate objectives Through traffic is defined as traffic that is using Brennanstown Road to reach destinations outside the local area. Development traffic will be using Brennanstown Road as their destination.</p>									
<p>11</p>	<p>At the Public Consultation, the Dun Laoghaire Rathdown representatives could not explain why additional road systems could not be created to access development sites.</p>	<p>Noted. Access onto Brennanstown Road is not part of the adjacent development site plans (e.g. Cherrywood SDZ).</p>									
<p>12</p>	<p>Brennanstown Road will remain substandard and incapable of accommodating existing residents, let alone the additional vehicular, pedestrian and cycling trips associated with up to 1000 new homes.</p>	<p>At present, traffic volumes along Brennanstown Road are very low. Providing an additional 700 - 1000 new units will increase vehicular, pedestrian and cycle trips within the area; however, Brennanstown Road will be capable of accommodating these trips.</p>									
<p>13</p>	<p>DLR and ABP have consistently refused to grant permission for further residential development served by Brennanstown Road on public safety grounds associated with the weight if increased traffic within a substandard road and footpath infrastructure. It would appear that the main objective of this scheme is as a cosmetic 'box ticking' exercise to answer these objections and so facilitate development. Although the works improve</p>	<p>This traffic management plan has four objectives as set out in the current development plan, these are:</p> <ul style="list-style-type: none"> • reduce traffic speeds and improve road safety. • provide improved facilities for vulnerable road users. • reduce through traffic. • facilitate the development of zoned lands. 									

some of the footpath along the road, the footpaths remain substandard.	
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Recommendation: No change to scheme

Section 5.SUBMISSION BY TRAFFICWISE ON BEHALF OF CABINTEELY AND DISTRICT RESIDENTS ASSOCIATION

(Note: a number of the comments made throughout this report are repeated a few times - the responses outlined below address all of the comments made by Trafficwise, but do not address the repetitive comments)

	<i>Issues</i>	<i>Responses</i>
1	Comment 2.1.2/2.1.3/2.1.6/2.1.7 - No analysis is provided for the operation of Brennanstown Road with the proposed Part 8 scheme when subject to the traffic flows arising from the zoned lands which the scheme facilitates.	A VISSIM micro simulation model was developed for this scheme. As part of this model, various traffic conditions were assessed through the network. Traffic was increased and test runs were ran in order to see the traffic conditions through the network with the shuttle system in place.
2	Comment 2.1.5 - Unlike the current Part 8 scheme, the 2007 report did not expressly include an objective to facilitate the development of zoned lands.	In the current Development Plan (2016 - 2022), it is an objective to facilitate the development of zoned lands.
3	Comment 2.1.8 - The Environmental Report acknowledges the development of the zoned lands has been restricted not only because of the requirement to provide appropriate facilities for pedestrians but also by the capacity of Brennanstown Road to carry future traffic. The proposed Part 8 scheme reduces the carriageway width on Brennanstown Road and the various traffic calming measures and signal controlled shuttle system will cause increased delay which generally gives rise to delay and congestion. The Part 8 scheme will therefore reduce the carrying capacity of Brennanstown Road.	The objectives for this scheme are to reduce through traffic and provide traffic calming measures that will enhance the road space for vulnerable road users. The scheme proposals offer a balance between the provision of optimum capacity, considering the development objectives, and the provision of adequate quality of service for all road users.

4	<p>Comment 2.2.1 – No estimate of the potential reduction in through traffic flow arising from the scheme is provided in the Environmental Report.</p>	<p>As part of this traffic management scheme, a micro simulation VISSIM model was developed. This included Brennanstown Road as well as surrounding roads of the network. The model included a signalised shuttle system. The modelling analysis demonstrates that through traffic will divert off Brennanstown Road utilising other roads within the local road network</p>
5	<p>Comment 2.2.2 – In Contrast, the ‘Brennanstown Road – Proposed Traffic Management Scheme’ report dated January 2007 provides a comprehensive assessment of the likely success of the then preferred scheme to satisfy the objective of reducing through traffic. The WSP assessments were based upon number plate recognition surveys to identify through traffic volumes.</p>	<p>Number Plate Recognition Surveys were also used within this assessment in order to determine the volume of through traffic. A comprehensive assessment of this was undertaken and is outlined in a separate Traffic Modelling Report carried out for Dún Laoghaire Rathdown County Council.</p>
6	<p>Comment 2.3.1.2 – Save for the shared footway and cycleway, the proposed Part 8 scheme makes no provision whatsoever for cyclists.</p>	<p>Due to road width restrictions, it is not possible to provide designated segregated cycle facilities along Brennanstown Road. Cyclists will be accommodated on road with reduced traffic speeds and will be accommodated through the signalised shuttle system via a shared cycle/footpath while travelling westbound and on road while travelling eastbound.</p>
7	<p>Comment 2.3.1.4 – Given the ‘distributor’ function of the road it is reasonable to infer that Brennanstown Road is not a Local Street, but is a road of higher order that warrants a greater carriageway width than a ‘Local Street’.</p>	<p>Brennanstown Road currently carries a high level of through traffic. This through traffic contributes to the distributor nature of the road. This scheme has the aim of reducing through traffic and in turn, providing a less trafficked road.</p>
8	<p>Comment 2.3.1.5 – Some sections of Brennanstown Road will remain at 4.5m wide, which does not achieve the lowest DMURS ‘Local Street’ classification.</p>	<p>Response: A standard road width of 5.5m will be provided where possible; however, due to width restrictions, the existing carriageway width will have to be maintained in certain places along the road.</p> <p>The majority of Brennanstown Road has a very attractive and desirable semi-urban /semi-rural character and has a very attractive sylvan nature and historic character. There are also two protected structures along the road which act as the road/property boundary (Brennanstown House Outhouses/Stables/Yard Buildings and Glendruid House Gated Entrance).</p> <p>The provision of maximum quality of service for all road users requires encroachment into and acquisition of adjacent lands, mainly private. The major constraints considered are:</p> <p>a) the historical and heritage value of the road boundary walls; and</p>

		b) the nature and type of trees, located in the adjacent lands, that offer a significant sylvan road scape; the preservation of the existing Brennanstown Road character is set out in the DLR County development plan and, thus, it consists one of the key scheme objectives.
9	Comment 2.3.1.6 – The proposed Part 8 scheme fails to consider fully the function of Brennanstown Road within the surrounding road network. The report fails to show that the proposed Part 8 scheme will reduce through traffic or alter the function of the road.	Brennanstown Road is residential and is semi-rural in nature. The function of this road within the network should therefore be reflective of this. As part of this traffic management scheme, a micro simulation VISSIM model was developed. This included Brennanstown Road as well as surrounding roads of the network. The model included a signalised shuttle system and demonstrated that with varying signal timings and varying traffic flows, traffic did divert off Brennanstown Road and onto other roads within the local road network.
10	Comment 2.3.1.9 -a downhill speed above 30kph starts to become uncomfortable and unsafe for a cyclist of average ability. The proposed Part 8 Scheme is intended to improve facilities for vulnerable road users so it is extraordinary that cyclists would be expected to interact with traffic on the basis of having to keep up.	It is recommended that traffic travelling through the shuttle system will travel at a speed limit of 30kph, therefore cyclists will be safely accommodated travelling downhill at 30kph or below.
11	Comment 2.3.1.11 – The proposed lane 3.25m width over the ¼ km long shuttle section does not leave adequate space for motor vehicles to pass cyclists safely. The proposed lane width is substandard since it cannot safely accommodate both cyclists and motor vehicles.	Vehicles will share the carriageway with cyclists through the shuttle system section and will not pass cyclists in this section; therefore, the proposed width of 3.25m is adequate for a shared carriageway.
12	Comment 2.3.1.13 – The National Cycle Manual warns that shared facilities between pedestrians and cyclists generally result in reduced quality of service for both modes and should not be considered as a first option. Where a shared facility cannot be avoided the minimum width is 3m.	Where shared facilities cannot be avoided, there are a number of considerations to follow that will help both cyclists and pedestrians to be aware of the others presence. Due to width restrictions, it is not possible to maintain a 3m shared facility; therefore, the width varies between a minimum 2.25m to a maximum of 3m.
13	Comment 2.3.1.14 – ... the Environmental Report states that it is generally between 2.25 and 3m. Whether it is narrower in places is not made clear.	The minimum width for the shared path is 2.25m and the maximum width for the path is 3m.

14	Comment 2.3.1.15 – ... As there are street lighting columns and road signs in the footway the effective width will be less, so the width of the proposed facility is significantly less than the minimum in the National Cycle Manual.	This scheme proposal will provide an enhanced pedestrian facility along Brennanstown Road that will improve the current facility, as outlined in Table 1.1 above.
15	Comment 2.3.1.17 – The proposed Part 8 Scheme affords a low quality of service to both cyclists and pedestrians over the ¼ km long shuttle section which is truly extraordinary in the context of a scheme which purports to improve facilities for vulnerable road users.	This section of road, 170m in length, currently has no footpath provision. This scheme proposal will provide an enhanced pedestrian facility along Brennanstown Road that will considerably improve the current sub-standard facility. With traffic calming measures in place, traffic speeds will be reduced, and cyclists can be accommodated safely on road.
16	Comment 2.3.1.19 – DLR’s traffic consultants’ WSP considered a number of options for a scheme in the ‘Brennanstown Road – Proposed Traffic Management Scheme’ report dated January 2007. The WSP report considered a similar shuttle system to that now proposed but rejected it as impractical.....	The final report by WSP was in November 2007. This report outlines that after Public Consultation, the preferred option was the shuttle system. It states in this report: <i>“The introduction of a two way signalised shuttle service will enable the construction of a footpath/cycleway along the northern edge of the Brennanstown Road thus providing a continuous route from Cabinteely Village to the Glenamuck Road junction. Although there are no dedicated cycleways other than via the shuttle service area (in one direction only), the introduction of ramps will create slower vehicular speeds and conditions more conducive for cyclists and motorised vehicles sharing the carriageway. The traffic analysis indicated that the two way signalised shuttle service will lead to minimal queuing on Brennanstown Road at the road narrowing. The results of the analysis also indicate that a proportion of through traffic on Brennanstown Road will divert to alternative routes to access the M50 and N11....”</i>
17	Comment 2.3.2.8 – DMURS advises that large roundabouts (radius greater than 7.5m) are not appropriate in urban areas as they present difficulties for pedestrians and cyclists particularly where controlled crossings and cycle facilities are not provided and as such vehicles have continuous right of way (as in the case in all three roundabouts in the Part 8 Scheme).	There is one roundabout proposed for this Part 8 Scheme, at Lambourne Woods. Crossing facilities are provided on all arms of the proposed roundabout. Traffic volumes are very low and pedestrians will be able to cross through this roundabout safely. With traffic calming measures along Brennanstown Road, traffic speeds will be reduced. Cyclists will be accommodated on road through the roundabout.
18	Comment 2.4.1 – The Environmental Report states that the majority of vehicles on Brennanstown Road travel at a speed lower than the 50kph speed limit. No evidence of speed measurements or objective data relating to vehicle speeds is provided. Similarly the report provides no evaluation or estimate of the	The proposed traffic calming measures on Brennanstown Road are designed with an aim to considerably reduce traffic speeds along the length of the road. These measures include a roundabout feature, ramps, raised tables and adequate kerb heights. However, quantification of speed reduction can be made through speed surveys that can be undertaken after the delivery of the scheme, to identify additional traffic calming measures if needed.

	likely speed reduction that might result from the proposed features of the Part 8 Scheme.	
19	Comment 2.4.2 – We can find no evidence in the Environmental Report indicating that the proposed Part 8 Scheme will result in an improvement in road safety.	The traffic management scheme proposal will provide an enhanced pedestrian facility along Brennanstown Road that will improve the current sub-standard facility. Traffic calming features will be provided, reducing the traffic speeds on the road, creating a safe environment for cyclists on road. An extract from DMURS highlights results of a speed survey undertaken with various traffic calming measures in place. The document states: <i>'The presence of deflections, such as ramps, had a strong influence on reducing speed. Results also showed that other 'softer' measures, such as a sense of enclosure, surveillance and activity created by a continuous line of development fronting directly onto the street, have a strong influence on lowering speed. Overall, the results demonstrated a strong trend whereby as the frequency and strength of the psychological and physical design measures increased, the lower the operating speed and the greater the level of compliance with the posted speed limit.'</i>
20	Comment 2.4.3 -Given the objective to improve road safety it would be reasonable to expect that the proposed Part 8 Scheme would be the subject of a formal Road Safety Audit.	A Stage 1 Road Safety Audit has been undertaken as part of this Part 8 process.
21	Comment 3.2.1 – The Environmental Report does not state when the traffic surveys were carried out on the road network.	Traffic Surveys were undertaken at the end of January 2016 during school operating days and hours.
22	Comment 3.3.1/3.3.2 - ...The report does not clarify the time of day for which the journey time assessment applies or if it is reporting an average for the whole day.....the future scenario is based upon optimised signal timings at either end of Brennanstown Road whilst the existing scenario uses the current signal timings accordingly the report provides no real basis of comparison.	The journey time surveys were carried out over a three hour period in the morning (07:00 – 10:00) and a three hour period in the evening (16:00 – 19:00). The results for AM and PM peak are an average of the peak hour during these time periods, ie, AM peak hour was from 08:00 – 09:00 and PM peak hour average was taken from 17:00 – 18:00. The signals at both junctions need to be optimised if this scheme is to be implemented; the results are showing that if the signals are optimised, this will result in reduction in queueing with the future scenario.
23	Comment 3.3.3 – The time of day for the queue length assessment in Section 4.2.2 is not stated.	The queue lengths highlighted in Section 4.2.2 are based on outputs of the VISSIM model. The VISSIM model was calibrated with junction turning counts and validated with the journey time surveys undertaken along the route, therefore, the model was deemed an acceptable representation of base conditions.
24	Comment 3.3.4 – The Environmental Report claims that the assessment of queueing at the Brennanstown Road/Bray Road junction shows an	The queue data within the report shows existing average queue lengths. Therefore, the average queue length over the peak hour is 21m (4 vehicles), queue lengths are higher and lower than the average length over the peak hour.

	existing queue of 4 vehicles. The level of queueing suggests that the assessment is either unrealistic or that it relates to an off peak time of the day.	Journey time surveys were also carried out during the morning peak hour; they show that it took on average between 3 – 4 minutes to drive along Brennanstown Road from the junction with Glenamuck to the top of Brennanstown Road at the junction with Bray Road. This therefore does validate the average queue lengths shown.
25	Comment 3.3.5 – It is noteworthy that the previous report entitled 'Brennanstown Road – Proposed Traffic Management Scheme' dated January 2007 and prepared by WSP also provided assessments of the operation of the existing traffic signals at both ends of Brennanstown Road. That report however did provide a worthwhile analysis of the road network which included the existing scenario and the existing scenario with optimised signals. These base assessments were then used to evaluate the operation of the then proposed scheme with optimised signals subject to existing traffic flows and also subject to the additional traffic flows arising from the development of zoned lands. The 2007 WSP approach would be a reasonable template of good practice for the current report to have followed in order to provide meaningful data.	The report by WSP was an Options Report. In order to inform this Part 8 Environmental Report undertaken by AECOM, an Options Report was also carried out. This Options Report displays a similar template in terms of detailed analysis of the relevant junctions within the study area. These results were then used to inform the Environmental Report.

Recommendation: No change to scheme

10. CONCLUSION:

The objective of this proposal is to provide a Traffic Management Scheme for Brennanstown Road that will meet the stated objective for the area as set out in 'Policy ST25: Roads' in the Dún Laoghaire-Rathdown County Development Plan, 2016-2022. The County Development Plan requires the scheme to:

- reduce traffic speeds and improve road safety.
- provide improved facilities for vulnerable road users.
- reduce through traffic.
- facilitate the development of zoned lands.

It is considered that the proposed scheme achieves the stated objective, and offers a balance between the provision of optimum capacity, considering the development objectives, and the provision of adequate quality of service for all road users, while preserving the existing character of Brennanstown Road. The development accords with the proper planning and sustainable development of the area.

11. RECOMMENDATION

The proposed development is considered to be in accordance with the provisions of the 2016-2022 Dún Laoghaire-Rathdown County Development Plan and with the proper planning and sustainable development of the area. In accordance with the legislation, the proposed development may be carried out as recommended in the Chief Executive's Report, unless the Council, by resolution, decides to vary or modify the development otherwise than as recommended, or decides not to proceed with the development.

Subject to the above approval, members are hereby notified in accordance with Section 138 of the Local Government Act, 2001, as amended, of the intention to proceed with the proposed development, subject to the amendment outlined above, and to any such minor or immaterial alterations to the plans and particulars of the development.

Owner : Frank Austin, Director of Infrastructure and Climate Change.

Appendix A List of persons who made submissions (next pages)

APPENDIX A

Submissions received during the Public Consultation Phase.

No.	Name
1	Michael Binchy
2	Eamon Walsh
3	Brendan Russell
4	David and Barbara Cooper
5	Michael MacNicholas
6	Cathal Duffy
7	Ingrid Tidey
8	Irish Water
9	Prendiville Planning and Research Consultants on behalf of Carrickmines Wood Residents Association
10	Gillian Carr
11	Mary O'Connor
12	Kieran Holland
13	Valerie Ryan
14	Eoin and Orla Fitzgerald
15	Ray Green
16	Daniel Green
17	Ray and Dara Green
18	Michael and Aideen O'Brien
19	Philip Murphy
20	Peter and Sarah-Jane Kemp
21	Aaron Wootton
22	Lynda Stanly
23	Joe and Carolann Buckley
24	Elizabeth Duffy
25	Sydney Reid
26	Patrick and Marian Duff
27	Ronald Devir
28	Kieran O'Malley and Co. Ltd. on behalf of Cabinteely and District Residents Association
29	CORE Architects on behalf of Doyle Nursery's
30	Transport Infrastructure Ireland
31	John Spain Associates on behalf of Benreef Ltd. (In Receivership)
32	Neil McGonigle
33	Jean Callanan
34	John Cowzer
35	Brendan Fitzsimons
36	Carole Vidalinc
37	Elizabeth Pilkington
38	John Murray
39	Margaret Richardson
40	Imelda Galvin
41	David Chapman
42	Daniel Tobin
43	Darren & Sarah Carty
44	Fiona McCarthy
45	Damian Loscher
46	Liam Mulcahy
47	O'Dwyer Real Estate Management on behalf of Carrickmines Woods Management Company Ltd
48	Claire Gloster
49	Ray Casey

50	Leslie and Cleo Ellis
51	Bryan and Jane Evans
52	Sinead and Paul Murphy
53	Oran Ryan
54	Karen Keaveney
55	Padraig Gill
56	Jennifer Sowman
57	Vincent Smith
58	Paul and Heather Donaldson
59	Clare Sullivan
60	David Haslam
61	Keith Byrne and Clare Sullivan on behalf of Dublin Cycling Campaign
62	Kevin O'Brien
63	Ossian Smyth
64	Anna Ni Choncheanainn
65	Hannah Mason
66	Jacqueline Gribben
67	M. Gribben
68	Kevin Harvey Sheridan
69	Liam Clifford
70	Aisling Clifford
71	Susan Sheridan
72	Tina Clarke
73	Gregory Clarke
74	Rebecca Clarke
75	Brian Moore
76	Paula Moore
77	Brigid Fitzsimon
78	Richard Fitzsimon
79	Donal Curry
80	Fiona Fullam
81	Bryan Evans
82	Hugh Evans
83	Jane Evans
84	Sarah Evans
85	Rachel and Stephen McAteer
86	Eddy Van Cutsem
87	Simon O'Sullivan
88	Marie Duffy
89	Donal Duffy
90	Gorden Dixon
91	Yvonne Dixon
92	John Colbert
93	Elizabeth Colbert
94	John Coleman
95	Philip Murphy
96	Liam and Bernie Walsh
97	Neil Francis
98	Nicola and Niall Murphy
99	Louise and Neil O'Herlihy
100	Leslie Cosgrave
101	Fiona Forde
102	John F Murray
103	Ailbhe M Murray
104	Eileen Byrne
105	Madeline O'Hanlon
106	Donal O'Hanlon

107	Donal Farrell
108	Jill Andrews
109	Gavin Austin
110	Julie Austin
111	Leonard and Deirdre Hayes
112	Michael Cullen
113	Dolores Delaney
114	Howard Napier
115	R. Conan
116	Maurice and Doreen Brownlow
117	Chris Fitzgerald
118	Jacqueline O'Keefe
119	Maurice O'Mahony
120	A.Thompson
121	Louise and Don O'Donoghue
122	Adrian Jones
123	Mark and Katie O'Riordan
124	Ray O'Connor
125	R. Opperman
126	Ivan Sheppard
127	Breda McDonagh
128	Patricia Lynch
129	Sean Lynch
130	Orla Fullam - Smith
131	Tommy Lynch
132	H.K Sheppard
133	Mary Felton
134	Tara O'Brien
135	Sarah Lappin
136	Mary Moore
137	Pat Moore
138	Paul Spence
139	Angela Callery
140	Margaret Dolan
141	John and Mairead Kennedy
142	William Doherty
143	Brenda MacHugh
144	Richard Magee
145	Stephen O'Carolan
146	Deirdre Craig
147	Andrew Craig
148	Nick Craig
149	M Rooney
150	Deirdre Byrne
151	Judi Turner
152	Amy Buckley
153	Maria and Ciaran Kelly
154	Rebecca Ellis
155	Elizabeth Hughes
156	Clare Sheridan
157	Kevin Cronin
158	Dawn Cronin
159	Ann Doyle
160	John Holt
161	Gerard Roche
162	K. Clear and M. O'Brien
163	Keeley Family

164	Cathal and Linda Duffy
165	Kay Mulcahey
166	Karena O'Connor
167	Aidan O'Connor
168	Mary O'Boyle
169	Kevin O'Boyle
170	Noel Shanahan
171	Clare Shanahan
172	Andy McDonnell
173	Cathy McDonnell
174	David Heavey
175	Michael Heavey
176	Mary Byrne
177	James Byrne
178	Mary Finn
179	Karen McDonnell
180	Carolain Buckley
181	Wehdy Sloan
182	Nicola Ralf
183	Stephen Duffy
184	David Sharpe
185	Ivan Williams
186	Rev. Bruce Hayes
187	John Sharpe
188	Stephen Sharpe
189	Brendan Fogarty
190	John French
191	John Hickey
192	Joan Gaafar
193	Niall Gaafar
194	Gina O'Hare
195	Alec Vaughan
196	Anne Tobin
197	Rhona Williams
198	Ruairi Cushion
199	Tom Schnittger
200	Martin O'Sullivan
201	Anne Daniel
202	Audrey Dolan
203	D. Coleman
204	Mrs M. Phelan
205	Derek Perkins
206	Dorothy Perkins
207	Sydney and Rachel Reid
208	Patrick Corry
209	Glenn Mc Evoy
210	Miriam Penney
211	Declan Byrne
212	Bridie Raftery
213	Conor and Sinead O'Toole
214	Colm O'Hare
215	Patrick Duff
216	Roseleen Duffy
217	M Cooper
218	E. O'Mara Walsh
219	Pauline Russell
220	Deirdre Smith

221	Stephen Smith
222	Stuart Cushion
223	Darrell Cushion
224	Frances Cushion
225	Rachel Cushion
226	Rachel Freedman
227	Tom Cushion
228	Ted Wallace
229	Declan Daly
230	John and Helen Henderson
231	Nadine Buckley
232	Lynn McCleane
233	Natasha Sharpe
234	Frances Creighton
235	Damian Creghton
236	John Owens
237	Liam Dunne
238	Kieron Sheehy
239	Alan Ralph
240	Sandra Sharpe
241	Andrew McCleane
242	Paul Hayes
243	Joe Buckley
244	Matthew Ralf
245	Susan Hihds
246	Stephen McCleane
247	George Duffy
248	A. McEachern
249	Steve Cooper
250	Blanca Valencia
251	Anna Murphy
252	Noelle Balfe
253	Patricia McGowan
254	Tony O'Rahelly
255	Michael Culligan
256	Mrs Joan Darling
257	Mr Angus Sutherland
258	Peter Wiley
259	Mrs June Hayes
260	Hazel Nolan
261	Ms Janet Moore
262	Joan O'Dowd
263	Darragh O'Brien
264	Marie Donnelly
265	Rosaline McLoughlin
266	Kathryn Sinclair
267	Alan Guerins
268	Colette Haskins
269	Laura Guerins
270	Rachel Fry
271	J. Kavanagh
272	Jim MacDonald
273	Gerry Whelan
274	Paula Whelan
275	Naomi Good
276	Niamh Carrick
277	Karl Carrick

278	Eithne Searer
279	Gerry Crowley
280	Ronan Keane
281	Ursula Mc Sweeney
282	Claire Vaughan
283	Evelyn Hyder
284	Donal Moulton
285	Niall McCarthy
286	Patricia Mooney
287	Robert Mooney
288	Emma Raftery
289	Daniel Raftery
290	Ken and Dorothy Shanahan
291	Ollie Carroll
292	Peter and Marian Humphries
293	Philip Pilkington
294	Garrett Pilkington
295	David Sheridan
296	Rosanna Sheridan
297	Timothy Sheridan
298	Emily Sheridan
299	Mary Corry
300	John O'Mahony
301	Barbara Sheridan
302	Eleaner Sinnott
303	Melissa Sheridan
304	Matthew Sheridan
305	Andrew Sheridan
306	Michael O'Dowd
307	Jane Corbet
308	Derek Kelly
309	Carmel O'Driscoll
310	Kevin O'Driscoll
311	Jackie O'Driscoll
312	Isobel Pilkington
313	Liz Pilkington
314	Rachel Corry
315	B. Fanning
316	Caroline O'Kane
317	Rory Craig
318	Barbara Cushion
319	Carol Cushion
320	Eimear Smith
321	R. Smyth
322	Declan Corry
323	June Hayes
324	S. McEachern
325	Ben Ralph
326	Grace Creighton
327	Noel O'Brien
328	Fiona O'Brien
329	Maria O'Brien
330	Aideen O'Brien
331	John O'Brien
332	Megan Pilkington
333	Conor Ferris
334	Susan Philippe

335	Stephen Connolly
336	Thomas A. Murphy
337	Sheila Murphy
338	Karen Reid
339	Anne and Liam Crossan
340	Susan Cronin
341	Helen Pilkington
342	Januya Randall
343	Fergus Gloster
344	Andrew Gloster
345	Claire O'Brien
346	Martin O'Brien
347	Sean Creighton
348	Dermot O'Brien
349	G. Carr
350	Kerrie O'Brien
351	John O'Neill
352	Declan Pierce
353	Gaye Gaynor
354	Clare Waldron
355	Mr and Mrs Geoghegan
356	Carmel Houlihan
357	Jim Jordan
358	Elizabeth Jordan
359	Sally McGuinness
360	Eileen Manning
361	C. Power
362	Irene Doody
363	Susan Caslin
364	Noelle O'Donnell
365	Dr Max Ryan
366	Hugh Geverney
367	Michael Considine
368	Marjorie Nolan
369	Leslie Ellis
370	Charles Delap
371	Brian and Margaret Mangan
372	Dan Heaney
373	Hinda Power
374	Aine Hayes
375	Seamus Raftery
376	Sonja Waugh
377	B Pilkington
378	Declan Meagher
379	John Crampton
380	Sheila Crampton
381	Ian Alford
382	John Corry
383	A. Manning
384	Philip Meagher
385	Catherine Meagher
386	David Magee
387	Jane Meredith
388	Miriam Mac Donald
389	Elena Fayden
390	B. Dundon
391	Killian O'Brien

392	Noeline Dunne
393	Brian and Diane Crowley
394	Tim O'Brien
395	Robert and Lorraine Bruton
396	David Crampton
397	Geraldine O'Brien
398	Samantha Hayes
399	David McCleane
400	Erika O'Neill
401	Adrienne Murray
402	Coner Byrne
403	Fintan Meagher Senior
404	Tom and Ann Marie Fitzgerald
405	Joe Gaynor
406	Ashling Cleary
407	Anne Cleary
408	D. Cooper
409	B. Cooper
410	W. McEachern
411	J. McEachern
412	E. McEachern
413	N. Cooper
414	A Cooper
415	Brian Cassidy
416	Seamus McGowan
417	Anne Kerans
418	Loic Shiloffe
419	Arturas Vecelis
420	Jim Gleeson
421	M. O'Brien
422	Gráinne Parker
423	Seán Mac Gráinne
424	E. Ryan
425	S. Loughlin
426	N. McGrath
427	Hilary Cran
428	Ann Roughan
429	The Resident/Owner
430	Rolandas Que Lauskas
431	Teresa Pielow
432	Dara Green
433	Sarah Jane Green
434	Sam Green
435	Sarin Delahunty
436	Jennifer Green
437	Hugo Murphy
438	Mary Murphy
439	Colin Pielow
440	Barbara Williams
441	Damian Sheridan
442	Sarah Sheridan
443	Aishling and Jamie Waldron
444	Amelia Sheppherd
445	Mary O'Connor
446	John McEvoy
447	Ger Cooper
448	Siobhán Fitzgerald

449	Mary Leane
450	Clodagh Slattery
451	Wendy Murphy
452	Claire Murphy
453	Ann O'Doherty
454	M. O'Neill
455	Richard Carey
456	Kate Murphy
457	Mark Murphy
458	Alan Cooper Jnr
459	Sinead Clery
460	G. Woods
461	Paddy Boyle
462	Isobel Mahon
463	Tony Tuthill
464	Jim Scully
465	Lucy Grennan
466	Denise O'Beirne
467	Dr Phil Robert
468	Eoin Fitzgerald
469	Aidan Daly
470	Jean Daly
471	Alan Daly
472	Donal Evoy
473	Patrick Evoy
474	Dympna Carey
475	Yvonne O'Riordan
476	Mary Martin
477	Paul Martin
478	Denis O'Riordan
479	Paul Fallon
480	Avril Fallon
481	R. Fallon
482	Niall O'Carroll
483	Betty O'Carroll
484	John Kidney
485	Orla Fitzgerald
486	Eoin Haverty
487	Paula Haverty
488	Cian Fitzgerald
489	Eanna
490	Margaret Whyte
491	Declan and Miriam Molloy
492	Adrian and Nessa Greffen
493	Brian McGrath
494	Declan and Elizabeth Murphy
495	Dermot McKenna and Linda Cole McKENNA
496	Gerry Geoghegan
497	Nicky O'Reilly
498	E. Brandon
499	K. Brandon
500	R. Brennan
501	Marty Hudson
502	Angela Roughan
503	D. Roughan
504	John Ewins
505	Rose Ewins

506	A. Ewins
507	K. McGee
508	F. McGee
509	Austin and Monica Duke
510	B. Ward
511	Macartan Haverty
512	Rowan Kieron
513	Frank Quinn
514	David Mullegan
515	John Spence
516	M. Sinnott
517	Name not legible