



Draft Toll Scheme
For the
Limerick Southern Ring Road Phase II

**Report of
Maurice O'Connell
March 2005.**

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1. Introduction

The NRA prepared a scheme for the establishment of a system of tolls on the proposed Limerick Southern Ring Road Phase II. The legislation provided that if objections were made to the Draft Scheme within the statutory period and not withdrawn, the Authority would arrange an oral hearing to inquire into matters pertaining to those objections.

One objection was submitted to the Authority within the statutory period and was not withdrawn.

By letter dated 17th December the National Roads Authority appointed me as the Inspector to hold the Oral Hearing to inquire into the matters raised in the objection received to the Draft Toll Scheme. The letter required me to prepare a report on the Oral Hearing, inclusive of any recommendations I might deem appropriate, for consideration by the Board of the Authority.

The hearing took place at the Kilmurray Lodge Hotel, Dublin Road, Limerick on Tuesday 1st February 2005, commencing at 10.00am.

I carried out an inspection of the scheme on Monday 30th January 2005.

This report is in accordance with the warrant appointing me and reflects the proceedings of the Hearing.

2. Description of the Toll Proposal

The Limerick Southern Ring Road Phase II, referred to in the Draft Toll Scheme as the “Proposed National Road”, extends from the commencement of the east facing On/Off Ramps at the Rossbrien Interchange immediately west of the Limerick Southern Ring Road Phase 1 in County Limerick, to the commencement of the On/Off Ramps where the dual carriageway ties in to the existing N18 at Cratloe Castle in County Clare at the northern end of the proposed scheme.

The Proposed National Road also includes a link road (national road also) that connects the mainline alignment at Coonagh West with the existing Clonmacken Roundabout. The Proposed National Road is to be linked by ancillary roads with the existing road network through a grade separated junction at Rossbrien, a grade separated junction at Dock Road, a roundabout at Clonmacken, and a grade separated junction at the tie-in with the existing N18 at Cratloe Castle. The total length of the dual carriageway section of the Proposed National Road, which forms part of the overall bypass of Limerick City, is 10 km approximately. The total length of the single carriageway section of the Proposed National Road which links the mainline via the Coonagh West grade separated junction with the existing Clonmacken Roundabout is approximately 3 km.

Two toll plazas are proposed for the scheme. It is proposed to locate the mainline toll plaza on the dual carriageway section between the grade separated junction on the Proposed National Road at Coonagh West and the grade separated junction at the tie-in with the existing N18 at Cratloe Castle. In addition, a secondary toll plaza is proposed on the single carriageway section between the grade separated junction at Coonagh West and the tie-in to the existing Clonmacken roundabout. Due to the arrangement of the Coonagh West grade separated interchange, there is no link between the Clonmacken link road and the new dual carriageway north of the interchange. Thus a road user cannot pass through both toll facilities in undertaking one journey on the scheme. Both locations are indicated on the map attached as Schedule A to the Draft Toll Scheme

A draft Toll Scheme was prepared by the NRA in accordance with the statutory provisions of the Roads Act 1993 as amended by the Planning & Development Act 2000.

Schedule B details the classes of vehicle proposed to be exempted from the payment of Tolls

Schedule C of the Draft Toll scheme provides for tolls estimated at August 2003 prices to range from €0.67 for motor cycles exceeding 50cc through motor cars at €1.30 with other estimated charges for larger vehicles of €2.31; €3.27 & €4.17 All these figures are exclusive of vat.

The Draft scheme provides that tolls may be updated periodically to take account of the increases in areas such as the Consumer Price Index or increases in Gross National Disposable Income.

3. Statutory Requirements

Mr. Gerard Murphy, Public Private Partnership Manager, NRA gave evidence at the hearing in relation to the statutory powers and procedures necessary to give effect to the Toll Scheme(copy of his submission attached) He outlined:

- The powers under which the Draft Toll Scheme was prepared
- The notifications sent to the local authorities
- The public notifications and display
- The provision for the making of objections and lastly
- The provision for the holding of an oral hearing if objections were received and not withdrawn.

One objection was received.

There was no suggestion at the hearing that the statutory procedures were not fully complied with. Equally based on what I heard at the hearing I have no reason for believing that the procedures were other than fully complied with.

4. Appearances

4.1 On behalf of NRA

Mr. Dermot Flanagan, Senior Counsel

Mr. Gerard Murphy, Public Private Partnership Manager

Mr. Michael Kennedy, NRA response to objections.

4.2 On behalf of Statutory Objectors

No appearance

4.3 Others who made Submissions

Councillor Pat Kennedy, Limerick City Council

Councillor John Gilligan Limerick City Council

Mr. Eugene Drennan, Irish Road Haulage Association

A copy of the original written objection from the Motor Cycle action Group (MAG) is attached.

Those listed above as "Others who made submissions" asked to be heard at the hearing and were allowed to do so.

5. Proceedings of Hearing

I opened the Hearing and read the warrant authorising me to conduct it. I then outlined the manner in which I would conduct the Hearing. I would first hear the (complete) case made by the NRA. When that was completed those who wished to make submissions would be allowed to do so.

I stated that I had a stenographer present to assist me to accurately represent the proceedings in the preparation of my report. The stenographer was there to record what was not given in written submissions and what she produced would therefore not be a complete record of the proceedings.

MAG objections could be summarised as follows:

Where Hard Tolling is applied, motorcycles should be added to the list of exempt vehicles on Schedule B for the following reasons:

- o Hard tolling is an inefficient means of raising revenue;
- o Motorcycles are a more environmentally friendly alternative to single occupancy cars and should therefore be encouraged;
- o Motorcycles cause negligible wear and tear on roads.

6. Proposers Case

The case made by the NRA was made by three witnesses referred to earlier:

Mr. Dermot Flanagan, Senior Counsel set out the whole context for the Hearing. He set out in summary format what each of his witnesses would cover in their presentations

Mr. Gerard Murphy, Public Private Partnership Manager gave evidence in the context of the National context of tolling strategy general arrangements and compliance with statutory procedures. A copy of his submission was made available to all present.

Mr. Michael Kennedy, Assistant PPP Manager dealt with the NRA's response to the objections from MAG. A copy of his submission was made available to all present.

Mr. Gerard Murphy in his introduction, referred to the statutory framework under which the NRA was formally established in 1994 and to the place of the PPP's in its operations. He stated that "The Authority's primary function under section 17 of the Act is to secure the provision of a safe and efficient network of national roads." In exercising this function, the Authority has regard to the Government's overall strategy for the improvement of national roads.

The National Development Plan 2000 – 2006 (NDP) stated that "PPPs are an important element within the overall investment planned under the National Development Plan 2000-2006, particularly under the Economic and Social Infrastructure Operational Programme."

The NDP strategy for national roads comprises: the development of five major inter-urban routes - Dublin to the Border, to Galway, to Cork, to Limerick and to Waterford - to motorway/dual carriageway standard;

- In the NDP, the Government has set a target of securing €2.35b private finance for Public Private Partnership (PPP) projects generally, including at least €1.27b for national roads.

It is considered that the PPP approach will:

- help deliver better value for money through the cost effective transfer of risk to the private sector;
- enable the earlier provision of much needed infrastructure by providing a mechanism to attract private finance to supplement exchequer funding;
- facilitate private sector innovation in areas of scheme design, construction and long term operations;
- assist with the timely delivery of road projects within the NDP timeframe that otherwise would not be possible under the conventional roads programme;
- release Exchequer funding to allow the development of other important projects which do not have the capacity to attract significant private sector funding, and
- ensure long-term operation and maintenance of new assets to a high standard.

As stated by Mr. Murphy a number of key principles underpin the NRA's PPP programme

- An alternative toll-free route must be available for road users;
- Toll roads should be spread across the main national routes in order to create an equitable distribution of user-charging on the newly constructed network;
- A road project needs to be of sufficient size in order to produce value for money when using the PPP process;
- Where necessary, a public subsidy will be considered for high cost schemes, which cannot be financed solely from tolls.

The PPP schemes are distributed on the following main routes, into which substantial investment is to be made: Dublin – Border (M1), Galway to Dublin (N4/N6), Cork to Dublin (N8), Limerick to Dublin (N7), and Dublin-Cavan (N3).

The NRA considered the selected schemes were of:

- o a size appropriate to the PPP mechanism;
- o could attract substantial private finance;
- o would attract sufficient private sector interest to ensure good competition at bid stage; and
- o ultimately would result in increased value for money for the public sector.

Under the approach proposed by the NRA, toll roads will be additions to the current network of national roads rather than on-line improvements of existing roads. This is a key factor in ensuring that road users have a toll-free alternative available.

The Limerick Southern Ring Road Phase II is one of two tolled sections to be developed between Portlaoise and Limerick, the other being the Portlaoise PPP motorway which will extend from the existing Portlaoise Bypass to Borris-in-Ossory.

The toll revenues generated from the Limerick Southern Ring Road Phase II scheme will facilitate the following:

- o Defraying of the capital cost of the new road;
- o Operation and maintenance of the completed road including the major new tunnel under the Shannon, and
- o Re-investment in the above road and tunnel facilities at the appropriate life-cycle intervention stages.

In accordance with the provisions of Section 63 of the 1993 Roads Act as amended, the NRA proposes to enter into a PPP agreement with a concessionaire. Under this agreement the concessionaire will be required to carry out the works identified. The Concessionaire will be required also to invest in the facilities at the end of the concession period, prior to hand-back to the public sector, in order to provide a satisfactory residual life.

The NRA considers that the scheme will deliver time-savings, journey time certainty, and an overall high level of service to users for the toll charge levied. Users will therefore derive identifiable benefits from their use of the tolled road, but at all times will continue to have available the existing untolled routes to cross the Shannon. The provision of the tolled tunnel is an expansion of current route choice options.

Mr. Murphy then explained the rationale for the strategy and for the charging levels proposed. One of the key service benefits associated with the scheme would be the use of the new tunnel under the Shannon and, for that reason, it was assessed that the payment of tolls should be particularly associated with this major benefit.

A scoping analysis identified three potential areas for location of the toll facilities. The actual location chosen was between the Clonmacken Interchange and the connection with the N18 at Cratloe. However the interchange at Clonmacken created a situation whereby users of the Clonmacken link travelling in the Tunnel would avoid the toll plaza. In accordance with the principle of payment of a toll for the service benefit of usage of the tunnel a separate toll plaza was therefore incorporated on the Clonmacken link. Without the Clonmacken plaza, traffic travelling north could exit from the dual carriageway at the Clonmacken interchange, travel on the Clonmacken link and rejoin the N18 travelling westwards without paying a toll. Using the same route, southbound traffic could also avoid the tunnel toll.

Because the Clonmacken interchange does not provide for all interchange movements, i.e. the movements between the dual carriageway to the north of the interchange and Clonmacken are not included, the placing of a plaza on the Clonmacken link still only allows for tolling at one location for any user i.e. a user of the tunnel cannot be tolled twice in the same direction.

In respect of the toll charges to be levied the NRA's national strategy is to devise tolls at a level consistent with the twin objectives of deriving revenue while encouraging usage of the tolled road and delivering a scheme's principal transportation and environmental benefits. In the case of the Limerick scheme, the charges have ***not*** been set at levels that would maximise revenue. The toll charges published reflect NRA policy of pursuing affordable toll charges so as to maximise traffic attraction to the tolled route.

The charges proposed for the Limerick scheme are exactly the same charges as those adopted by the NRA in Toll Schemes for the Waterford Bypass, the Fermoy Bypass and the M1 Motorway at Drogheda. In addition the 10% discount provision on those adopted Toll Schemes for pre-payment of 20 journeys, or multiples of 20 journeys, has also been included in the Limerick scheme. It should also be noted that all VAT registered users would be entitled to reclaim the VAT payment. Thus it would be anticipated that all commercial vehicles and also VAT registered business travellers in private cars would avail of this recouping which would have the further effect of reducing the effective cost of the tolls charged.

Mr. Murphy further stated that Messrs. Colin Buchanan and Partners (CBP) had been responsible for producing the traffic forecasts for the Limerick Southern Ring Road Phase II scheme.

CBP had been part of the Limerick Planning, Land Use and Transportation Study team commissioned in 1999 by a group of local authorities (Limerick Corporation and the County Councils of Limerick, Clare and North Tipperary) to conduct the Limerick Region Planning, Land Use and Transport Study (PLUTS). The objective of the Study was to develop a comprehensive land-use and transportation strategy for an area covering Limerick and its hinterland. For the detailed examination of the Limerick Southern Ring Road Phase II scheme CBP produced a sub-model from the PLUTS model.

The anticipated tolls to be charged on the road were provided by the NRA to CBP for traffic modelling. CBP used a methodology where the toll charge was modelled within the traffic model as a time penalty on the proposed tunnel crossing. The duration of the time penalty was calculated by relating the toll charge to the value of time for travellers, based on national information. The forecast flows across the proposed crossing are shown in the table below for the un-tolled and tolled scenarios for the years 2008 and 2028.

Table: Annual Average Daily Traffic on the Tunnel Crossing (vehicles/day)

Scenario	2008	2028
No Tolls	34,492	48,196
With Tolls	27,124	40,651
Diversion	21.4%	15.7%

The expected reduction in the diversion, from 21.4% in 2008 to 15.7% in 2028, is largely due to the real increase in people's value of time. This arises because the value of time will increase in real terms, in line with economic growth over and above the level of inflation.

7. Response to Written Objections

The Authority received one objection, under the provisions of section 58 of the Roads Act, 1993, to the Draft Toll Scheme for the N7 Limerick Southern Ring Road Phase II. This objection was received from The Irish Motorcyclists' Action Group Ltd. (MAG), 1b Ring Terrace, Inchicore, Dublin 8.

There were several grounds of objection outlined in the MAG Ireland submission and these are listed below along with the Authority's response.

7.1 **Hard Tolling of roads is an inefficient means of raising revenue to fund road development. All motor vehicle users pay VRT. Excise duty and VAT on fuel, vehicles, parts etc. yet only a fraction of this revenue is used to fund the construction and maintenance of roads.**

7.1.1 **Response:**

Vehicle related taxation paid by the Irish motorists contributes to general Exchequer revenue. This money is re-distributed throughout the economy in many forms such as expenditure on capital projects, health, social welfare, education etc. The taxation raised from motorists contributes to general exchequer revenue and contributes to these programmes. Any attempt to ring fence motor tax receipts for investment exclusively in roads or public transport would have serious consequences for the State's ability to finance essential health and social services. It is normal in all developed countries that the proceeds of motor taxation, in all its forms, exceed direct expenditure on road networks. It is not the practice internationally to hypothecate such a large source of revenue, due to the scale and variety of State services.

The provision of road infrastructure through Public Private Partnership arrangements is part of the NDP. This plan envisages the injection of €1.3 billion in private sector finance to remedy Ireland's infrastructure deficit. Without private sector funding it will not be possible to complete the ambitious road construction programme stated in the NDP. Since the eastern region of Ireland has moved out of Objective One category in terms of EU support mechanisms, the amount of available funding has decreased dramatically in comparison to previous national programmes. To overcome this shortfall the national exchequer contribution to the roads programme has increased from €903 million in the 1994-1999 programme to €3,939 million in the programme for 2000-2006. Even this massive increase is insufficient to fund the full proposals under the National Development plan, and an additional input of €1.3 billion in private sector funding is required. Clearly without the provision of such funding, large elements of the network proposals would remain substantially uncompleted.

The imposition of hard tolls is a fundamental part of achieving the additional funding. The NRA considers that the tolls proposed are at an affordable level, and will deliver time-savings, journey time certainty, and an overall higher level of service to users for the toll charge levied.

7.2 **Where Hard Tolling is applied, motorcycles should be added to the list of exempt vehicles on Schedule B for the following reasons: Motorcycles are a more environmentally friendly alternative to single occupancy cars and should therefore be encouraged. Motorcycles cause negligible wear and tear on roads.**

7.2.1 **Response:**

Motorcycles are a form of motorised transport that avail of the road network for private and business use similarly to other vehicles. This is reflected in their incorporation in general statutory requirements for annual vehicle taxation and driver licensing.

For any individual, using a motorcycle rather than a car means a lower toll for exactly the same benefit of time savings and journey time certainty. This lower charge allied with its modest nature is an advantage to motorcycles that is incorporated in all the Authority's toll schemes.

For safe and efficient travel, motorcycles as with other vehicle classes, require a properly designed, constructed and maintained road network. The provision of the scheme comes at an initial capital cost and ongoing maintenance costs. The charges in the Draft Toll Scheme reflect increased charging for greater demand by large laden vehicles on the road in terms of damage and attendant repair costs. However, all the road users benefit from road lighting, signage, traffic lining, landscape management, winter salting and snow removal, emergency systems and general network management. In the case of the tunnel, a whole series of additional systems are required to ensure safety including ventilation, special lighting, CCTV monitoring, emergency telephones, 24 hour control manning, and variable message signage. Motorcycles will benefit from all these measures and are to be charged a modest toll towards the project costs.

7.3 If Tolls are to be applied to motorcycles : The design of any Toll Plaza should include a dedicated lane for motorcyclists to avoid risk to motorcyclists from other vehicles attempting to pass through the toll point without paying whilst the motorcyclist is occupying the lane. Electronic Tolling apparatus designed for car use is generally unsuitable for use by motorcyclists. A system suitable for motorcycle application should be provided. Shelter should be provided at booths to allow motorcyclists to remove outer clothing to gain access to their money without exposure to the elements.

7.3.1 Response:

Toll plazas are designed for the safety of all the vehicle users, as are other features of the road network such as junctions, roundabouts and interchanges where, in line with best practice, dedicated motorcycle lanes are not provided. For all toll lanes, with the exception of express lanes, vehicles will have to come to a stop to pay the toll manually or at an automatic machine. For the express lanes that are planned, the merging arrangements post-payment will be in accordance with standard road design parameters. As a general point, all highways designs are required to be scrutinised by a road safety auditor in accordance with the National Roads Authority's Design Manual.

It is acknowledged that electronic payment of tolls by motorcyclists requires the addition of a tag mounting to motorcycles. The Authority is aware that operators of ETC equipped toll plazas in the US have developed such a motorcycle tag mounting. Irrespective of this there are other toll payment options available to motorcyclists and they are not required to pay by electronic means.

The design of both toll plaza locations on the N7 Limerick Southern Ring Road Phase II provides for a canopy which will provide shelter to users of the toll plazas and staff working in the toll booths.

The overall toll system will be required to provide:

a secure and reliable system for the collection of tolls due; users with a safe, speedy and efficient passage through the toll plaza;

users with flexible and convenient methods of paying the tolls due, and

toll collection staff with a safe and secure environment in which to carry out their duties.

8. Oral Objections / Observations.

Individual objectors made statements at the hearing. The details of these objectors are contained at paragraph 4.3 above. The common content in all three statements was that while the tunnel proposal was more than welcome and indeed necessary for the commercial lifeblood of Limerick City and surrounds they all objected to the concept of tolling and in particular the level of the proposed charge.

8.1 Submission -- Councillor Kennedy, Limerick City Council

Councillor Kennedy was the first to make his submission and the following is a summary of the observations and questions raised:

- Concessionaire would collect approximately €600m over the lifetime of the concession;
- The tunnel in Cork did not attract a toll;
- Practice across Europe not to levy toll charges within 60 to 70 Km's of cities;
- Road users in Dublin derive poor value from the West Link Toll Bridge;
- The toll would lead to further traffic congestion in Limerick City;
- What was the level of subsidy to concessionaire by the NRA?
- Would there be exclusive use of Electronic Tolling so as to minimise potential delay?
- Would there be any incentive to heavy goods vehicles to use the facility at night to remove possible congestion at the toll booths?

8.2 Submission -- Councillor Gilligan, Limerick City Council

Councillor Gilligan welcomed to proposed construction of the tunnel but objected strongly to the imposition of any toll to use the facility. He made reference to the following to justify his viewpoint:

- Significant amount of tax collected already from the motorist in the form of Vehicle Registration Tax, Value Added Tax etc;
- Government has allocated €7billion expenditure on roads over a five year period while collecting €20 billion in motoring taxes over the same period making the proposed toll unnecessary;
- Toll booths would impose a delay to traffic using the tunnel.

8.3 Submission -- Mr. Eugene Drennan, Irish Road Haulage Association

- Tolls are an unwelcome tax an commercial activity;
- Proposed charge of €5.00 (€5.20)per truck was too high;
- Spain & Portugal charged trucks less than motor vehicles to encourage use of tolled facilities
- Tolls are a tax on exports;
- General lack of consultation by the NRA with Irish Road Haulage Association.

9. NRA Response

The hearing was informed that the level of subsidy emerges from the bidding process and so is decided on a competitive basis. In preparing the tender documents the level of traffic visualised as using the facility is estimated so as to form a basis for estimating income. The point was made that in examining the gross income from the tolling mechanism one had to take into account the time value of money.

On the issue of Electronic tolling Mr. Murphy stated that all lanes on both plazas would be required to accept this method of payment. The charge for trucks compared favourably with international charges: a discount of 10% would be available and the vat payable could be reclaimed as a business expense. He went on to inform the hearing that the average charge for trucks on the continent was approximately three times that for a private car.

Mr. Murphy explained that the West Link Toll Bridge in Dublin was not promoted by the NRA or by way of competitive tender so the comparison with the present proposal was invalid. It was also a fact that present tendering demanded very high service standards from the bidders with particular reference to queuing times at peak travel periods. Financial penalties are brought to bear on the concessionaire if there is an infringement of the agreed standards. There was also a mechanism in the tender process that allowed for a sharing of the profit with the government where future traffic volumes were in excess of those predicted.

Mr. Gilligan's question in relation to the overall level of taxation levied on motorists was considered to be a matter for national government and not a topic appropriate the present hearing.

Mr. Murphy informed the hearing that the NRA was an agent of the Department of Transport. This department monitors all European developments for their potential impact on the transportation industry. It was confirmed to the hearing that the Department of Transport was representing the interests of the Irish Road Haulage industry against excessive charging in mainland Europe.

10. Assessment & Recommendation

Having conducted the enquiry I now address the relevant issues and would comment as follows:

The power of the NRA to make a toll scheme is laid down in legislation and this legislation stipulates that specific procedures are followed. In my view the authority clearly demonstrated compliance with all the required procedures and supported this with documentary proof.

It was outlined to the hearing that the level of toll proposed was designed to devise tolls at a level consistent with the twin objectives of deriving revenue while encouraging usage of the tolled road and delivering a scheme's principal transportation and environmental benefits. It was further stated that in the case of the Limerick scheme, the charges were **not** set at levels that would maximise revenue. The toll charges published reflect NRA policy of pursuing affordable toll charges so as to maximise traffic attraction to the tolled route. While the objectors welcomed the provision of the tunnel they generally objected to the imposition of tolling at any level due principally to the already high level of taxation imposed on the transportation sector. At the hearing the proposers outlined the approach of balancing the charges levied so as to minimise the level of state subsidy required while at the same time encouraging use of the facility. It is also necessary to provide for untolled routes as an alternative. As part of stated policy of the NRA the facility also needs to be provided as an expansion of the current route options.

In my opinion the NRA demonstrated that the scheme will deliver time-savings, journey time certainty, and an overall high level of service to users for the toll charge levied. Users will therefore derive identifiable benefits from their use of the tolled road, but at all times will continue to have available the existing untolled routes to cross the Shannon. The provision of the tolled tunnel is an expansion of current route choice options

In relation to the use of the tunnel by motorcycles I do not feel that they should be treated exceptionally in this Scheme.

I consider the level of charges and proposed exemptions provided for to be reasonable

I therefore commend the Scheme as proposed to the Board.

Maurice J. O'Connell

Dated: