

M7 Osberstown Interchange & R407 Sallins Bypass Scheme

AGRONOMY

Brief of Evidence

by

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1. Introduction to Experience and Qualifications

- 1.1 My name is Con Curtin. I am an Agricultural Consultant with 27 years experience and a member of the Agricultural Consultants Association and the Agricultural Science Association. Over the past 15 years I have assessed the agronomy impacts on at least 13 major road development projects and several other infrastructural projects such as Metro North, The Tyrone to Cavan Electricity Interconnection Project and The North – South Electricity Interconnection Project. Further relevant details of my work experience and credentials are provided at the end of this Brief of Evidence. My brief is to assess the agricultural impacts of the M7 Osberstown Interchange & R407 Sallins Bypass Scheme and I am the author of chapter 6 - Agronomy, of the EIS for this development.
- 1.2 My Brief of Evidence will provide a brief summary of the impacts of the proposed scheme in the Executive Summary and proceed to point out the main predicted impacts before and after mitigation. I will also address some to the individual submissions from land owners. Topics such as Methodology of Assessment, Existing Environment and the Mitigation Measures are described in detail in chapter 6, volume 2 of the EIS and therefore are only briefly referred to in my evidence.

2. Executive Summary

- 2.1 The proposed Sallins Bypass Road Development will directly affect eleven farms. The combined land-take will be approximately 36 hectares (of which 8.7 hectares is zoned for non agricultural development) and approximately 55 hectares will be separated on five farms. The impact on the combined agricultural baseline (i.e. 464 hectares on 11 farms) is moderate adverse overall – due to the level of land take and land separation. Before mitigation, 4 significant adverse and 3 profound adverse impacts are predicted on individual farms. After mitigation this is reduced to 1 significant adverse residual impact. The existing farm enterprises can continue in the post scheme situation and because farmers will be compensated to insure that they are not at a loss as a result of the proposed road development, the agricultural impacts are acceptable.

3. Impact Assessment Methodology

- 3.1 The assessment methodology to determine the significance of impacts is a 3 step process as described in section 6.2 of Volume 2 of the EIS. The evaluation of sensitivity of farms, magnitude of impacts and significance of impacts is subject to professional judgement and experience. Significant data deficiencies were not encountered.

4. Existing Environment

- 4.1 The baseline environment consisting of eleven farms is described in section 6.3 of Volume 2 of the EIS and Appendix A6.1 of the E.I.S. The overall plan of farms along the proposed alignment is shown in Figure 4.12 of Volume 3 of the EIS. The individual farm impact reports and maps are summarised and shown in Appendices A6.1 and A6.2 of Volume 4 of the EIS.

5. Impact Assessment

- 5.1 The "Do Minimum" scenario represents an imperceptible impact on the baseline agricultural environment. In the "Do Something" scenario the predicted pre mitigation impacts are as follows;
- 5.2 During the construction phase;
- Approximately 36 hectares of land will be required for the proposed scheme. The proposed development will be fenced off at the beginning of the construction phase and this will result in;
 - A permanent reduction in the size of land parcels along the proposed route;
 - A reduction in shelter;
 - A reduction of access to land particularly in farms 104, 105, 109, 117 and 118;
 - The loss of farm buildings in farms 105 and 119; and
 - An accommodation over-bridge on the M7 will be closed.
 - Land will be separated in farms 101, 102, 103, 109 and 112. The closure of the accommodation bridge on the M7 will increase the separation impact on farm 109. The access between farms 104 and 105 (currently farmed as one unit) will be closed.
 - During the 18 month construction period the day-to-day operation of farms will be disturbed due to the construction activity and traffic. Temporary impacts on land drainage can be expected during excavation works. Access to land and to electricity and water supplies will be temporarily disrupted. Increased levels of dust and noise, particularly sudden noises which can disturb livestock will occur.
- 5.3 During the operational phase the pre mitigation impacts are;
- The land-take is a permanent impact resulting in either increased fragmentation of farms (if replacement land is purchased) or alternatively the farm size along the proposed scheme will be reduced;
 - Without mitigation there would be no access to separated land in farms 102, 103, 104 and 112. The loss of the access gate to farm 104 would leave the land without access. In farm 117 without provision of an accommodation gate the

only access to land north of the railway line would be via a privately owned accommodation bridge over the railway line.

- There will be permanent disturbance due to additional journey times and distances where land is separated. The angulation of fields and changes in access arrangements within farms generally increase the costs of operating a farm, albeit to a minor degree. There will be a loss of shelter until the proposed planting establishes itself and there will be an increased risk of trespass and loss of privacy due to pedestrian and cycle paths.

5.4 Before mitigation;

- Profound impacts are predicted in farms 102, 103 and 104;
- Significant adverse impacts are predicted in farms 101, 109, 112 and 119;
- Moderate adverse impacts are predicted in farms 105 and 117;
- A Slight adverse impact is predicted in farm 115; and
- One imperceptible impact is predicted in farm 118.

5.5 In summary, there will be 3 profound adverse impacts, 4 significant adverse impacts, 2 moderate adverse impacts, one slight adverse impact and one imperceptible impact on individual farms before mitigation.

6. Mitigation Measures

6.1 The proposed mitigation measures are set out in sections 6.5.1 and 6.5.2 of the EIS. These mitigation measures have been proven to be effective on many existing national road schemes. The financial compensation insures that none of the farmers along the proposed development will be at a financial loss as a result of the proposed development.

7. Residual Impacts

7.1 Residual impacts assume that mitigation measures have been implemented. The residual impact on the baseline agricultural environment (which consists of 464 hectares in eleven farms) is moderate adverse overall due to the land-take of 36 hectares (of which 8.7 hectares is zoned for non agricultural use) and the separation of 55 hectares on five farms. Cumulative impacts from the M7 motorway construction have been taken into account in the assessment of impacts on property 109 and 115. The individual residual farm impacts are shown in appendix A6.1 of Volume 4 of the EIS and are summarised here as follows;

- One imperceptible residual impact is predicted on farm 118. On this farm the access to the local road R407 is maintained by providing an accommodation

gate south of the proposed roundabout. The impact is assessed as imperceptible due to the small proportion of the farm that is taken (i.e. approximately 1% of farm area);

- Three Slight adverse residual impacts are predicted on farms 104, 115 and 119;
 - The existing entrance gate to farm 104, and access to this gate, will be taken by the proposed development. Additional pre mitigation impacts include impact on drainage and an old shed/derelict house will be taken. Without access the impact would be profound adverse. By providing an accommodation gate entrance to the land and maintaining access along the canal tow path the residual impact is Slight adverse;
 - Farm 115 is a stud farm and the sensitivity is very high. Pre mitigation there will be a Slight adverse impact due to loss of shelter and disturbance along the affected boundary. The existing farm is adjoining the M7 motorway and the livestock are accustomed to traffic noise. The land take is <1% of the farm and at the furthest edge of the farm and therefore the residual impact is Slight adverse overall (having also assessed the cumulative impact of M7);
 - Farm 119 is a very small land parcel comprising of a farm yard and adjoining field. Without replacement of the demolished buildings the pre mitigation impact is Significant adverse. However the value of the buildings will be paid for by the local authority and therefore they can be replaced reducing the residual impact to Slight adverse;
- Six moderate adverse residual impacts are predicted on farms 101, 102, 103, 105, 112 and 117;
 - The pre mitigation impact on farm 101 is Significant adverse due to the separation of 35% of the farm, the land-take of 6.5% of the farm and reduced access to drinking point on the river. However, with the provision of an accommodation underpass the separation impact is reduced and the residual impact is moderate adverse;
 - Farm 102 is a medium sized but intensive dairy farm and the sensitivity is high. The pre mitigation impact on this farm is profound adverse due to the separation of 13% of the farm, the land-take of 3% of the farm, reduced shelter and reduced access to drinking point on the river. However with the provision of an accommodation underpass the separated land, which is used for silage and grazing, is accessible and the residual impact is reduced to moderate adverse;
 - Farm 103 has a sensitivity in the low – medium range due to absence of farm yard, low stocking rate and summer grazing beef enterprise. The pre mitigation impact on this farm is profound adverse due to the separation of 18.5% of the farm and the land-take of 6% of the farm. Without provision of access the separated land would have no alternative access. However with the provision of an accommodation underpass the separation impact is reduced and the residual impact is moderate adverse;
 - Farm 105 has a low sensitivity due to low stocking rate, summer grazing beef enterprise and because the land is zoned for non agricultural use. The

pre mitigation impact and post mitigation impacts are similar i.e. moderate adverse due to the scale of land loss;

- Farm 112 has a low sensitivity due to low stocking rate, summer grazing beef enterprise and because some of the land is zoned for non agricultural use. The pre mitigation impact on this farm is Significant adverse due to taking an access point into the land and the separation of 61% of the farm and the land-take of 11% of the farm. Without provision of access the separated land would have no alternative access. However with the provision of accommodation gates on the proposed Sallins link road the separation impact is reduced and the residual impact is moderate adverse;
- The pre mitigation impact on farm 117 is moderate adverse due the land-take of 9% of the farm, reduced access (2 gate access points on to the road are removed) and impact on potential drinking points. An accommodation gate to the north east part of the farm is provided and the residual impact is moderate adverse;
- One significant adverse impact is predicted on farm 109;
 - Farm 109 is a large beef and silage farm located at both sides of the existing M7. There is an accommodation over bridge across the M7 which links both sides of the farm. The sensitivity of the farm is medium north of the M7 (a normal beef farm) and low south of the M7 where it is cropped mainly for grass silage and zoned for non-agricultural use. The pre mitigation impact on this farm is Significant adverse due to the separation of 67% of the farm, removal of existing over bridge, the land-take of 13% of the farm and the cumulative impact of the original M7 road development. The fact that the southern part of the farm is zoned for non-agricultural use is taken into account and therefore the residual impact is Significant adverse (rather than Profound adverse);
- No profound adverse impacts are predicted.

7.2 As a result of the proposed mitigation measures the current farm enterprises can continue in the post scheme situation and the impacts are minimised.

8. Response to Submissions

- 8.1 Seamus McCarthy, Alexandra House, Clane, Co. Kildare (CPO No 118) makes a submission Reference No ABP0002. He claims that provision should be made for a new Vehicular and Pedestrian access to his zoned lands from roundabout on Clane Road. My response to this submission is that there is an existing access gate to the field adjoining the Clane Road at the location of the proposed roundabout. This gate will be replaced with a similar gate south of the roundabout into the same field (see Figure 4.12 of Volume 3 of the EIS), but not at the location of the roundabout as this would not be safe practise.

- 8.2 Kieran & Morgan O'Flaherty, Barretstown, Sallins, Co. Kildare (CPO No 102) make a submission, Reference No ABP0003, claiming that the proposed development will impact on the operation and viability of their farm and that there will be security and disturbance issues. My response to this submission is that the agricultural impact assessment of this farm takes into account the existing enterprise and the impacts of the proposed scheme on the viability and future operation of the farm. With mitigation the impact overall is moderate adverse.
- 8.3 Waterstown Co-Owners (previously Sallins Cold stores), Sallins, Co. Kildare (CPO No 103) make a submission, Reference No ABP0014, claiming that the Scheme will interfere with lands, and compromise access and potential development of lands in the future. My response to this submission is that the proposed scheme will cross the farm splitting it into two segments. Access will be provided to the separated land via an accommodation underpass which will enable the existing land utilization to continue in the post scheme situation. These lands are not zoned for non-agricultural development at present. The potential development for non agricultural use is a remote and indefinable possibility at this point in time and therefore the EIS can only assess the existing farm with it's current planning status.
- 8.4 Brendan Heavey (& Others), Rowanhill, Tibbradden, Dublin 16 (CPO No 105) makes a submission, Reference No ABP0023, claiming that his Lands are referred to as agricultural lands in the CPO schedule whereas the lands are actually zoned for non-agricultural use in the Sallins Local Area Plan 2009. Furthermore he claims access to property has not been provided. He is concerned with level of road and drainage/flooding implications. He requests an access, necessary accommodation works, services to land, assurances in respect of future flood management and proposed boundary treatments. My responses to the points in this submission are as follows;
- Firstly, these lands have been assessed in the EIS on the basis that while the current use is agricultural they are zoned for non agricultural use. I have acknowledged that the lands are zoned for non agricultural use, however the description of the land in the CPO schedule is also correct.
 - Secondly, my assessment recognises that there is an existing access gate on the western boundary of the land parcel and that this is removed by the proposed road scheme, however, the main existing access point on the eastern boundary is not affected by the proposed scheme and is adequate from an agricultural point of view. Services for the maintenance of livestock can be provided from the eastern boundary.
 - Thirdly, the proposed road development will not increase flooding risk on this farm (as outlined in the evidence provided by Eileen McCarthy) and the drainage outfall from the land will be diverted along the edge of the proposed road development to the River Liffey.

- 8.5 Peter Traynor, Monread Court, Sallins Road, Naas, Co Kildare (No CPO) makes a submission, Reference No ABP0023, claiming that Impacts on property and greyhound enterprise to the east of the proposed bypass is not assessed in the EIS. My response to this submission is that the impact on the agricultural enterprise (ie greyhound dog rearing and training) on this property was not assessed in the Agronomy Section of the EIS because the property is not located within the CPO. The carriageway of the proposed road is 50m from the edge of this 2 hectare property which adjoins the existing public road. The impact from the night time construction works associated with the railway under-bridge may cause a minor disturbance to the dogs, but as the duration of this disturbance will only last a few weeks the significance is Imperceptible during the construction phase. It is worth noting that the dog pens are located within 30m of the existing railway line and therefore the dogs are exposed to existing ambient noise sources which would exceed the operational noise from the proposed bypass. Also they are exposed to the visual impact from the movement of trains. In my opinion it is normal that farm animals (including dogs) become accustomed to the ambient noises on a farm, whether the noise sources are from a farm yard, a public road adjoining a field or a railway line adjoining a field. Similarly they become accustomed to movements of traffic and machinery. Therefore the noise and air emissions from a public road and visual impact from traffic will not significantly affect the operation of a greyhound training and breeding enterprise and the impact is Imperceptible in the operational phase.

9. Author's Work Experience

- 9.1 Con Curtin graduated in 1987 from University College Dublin with an honours degree in Agricultural Science. He worked in the U.K. from 1987 to 1990 as a crops adviser with the Agricultural Development and Advisory Service (ADAS) and since 1990 as a Farm Consultant with Farm Business Advisors Ltd, Fermoy Co Cork, Independent Analytical Services Ltd, Bagenalstown, Co Carlow and since 1996 with his own company, Curtin Agricultural Consultants Ltd in Kilkenny. His work involves giving nutritional advice, farm financial planning, implementing EU farm environmental and income support schemes, nutrient management planning and farm buildings planning and design. He has completed eight Integrated Pollution Control Licenses for pig farm clients since 1998 and several large scale planning applications for pig units involving EIS submissions. He is employed as a professional witness in legal cases and National Road Authority arbitration hearings and assessments.
- 9.2 Since 1998 he has carried out Agricultural Impact Assessment Assessments on 13 large scale new road projects including N25 Waterford Bypass (40km), M7 Castletown to Nenagh (40km), N6 Galway City Outer Bypass (21 km), New Ross Bypass (13.5 km), M20 Patrickswell to Blarney (80km) and N22 Macroom to Ballyvourney (25km) and he has carried out Route Selection Assessments for eight new road projects. He has also carried out Agricultural Impact

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Assessment Reports for other nationally important infrastructural projects such as Metro North, The Tyrone to Cavan Electricity Interconnection Project (on behalf of Northern Ireland Electricity) and The North – South Electricity Interconnection Project (on behalf of EirGrid).

