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**APPENDIX 3B - SROOLANE
NORTH BRIDGE –PRINCIPAL
INSPECTION REPORT**
Ballynisky Wind Farm Turbine Delivery Route

Ballynisky Green Energy Ltd.

December 2025



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1. Introduction

MWP were commissioned by Ballyniskey Green Energy Ltd. to undertake a Principal Inspection of Sroolane North Bridge which is on the proposed turbine delivery route to the Ballyniskey Wind Farm site.

Sroolane North Bridge is a single span bridge with an out-to-out of 12.75m and a span of 2.22m. The bridge comprises a masonry arch. The bridge carries the L-1222 over a stream.

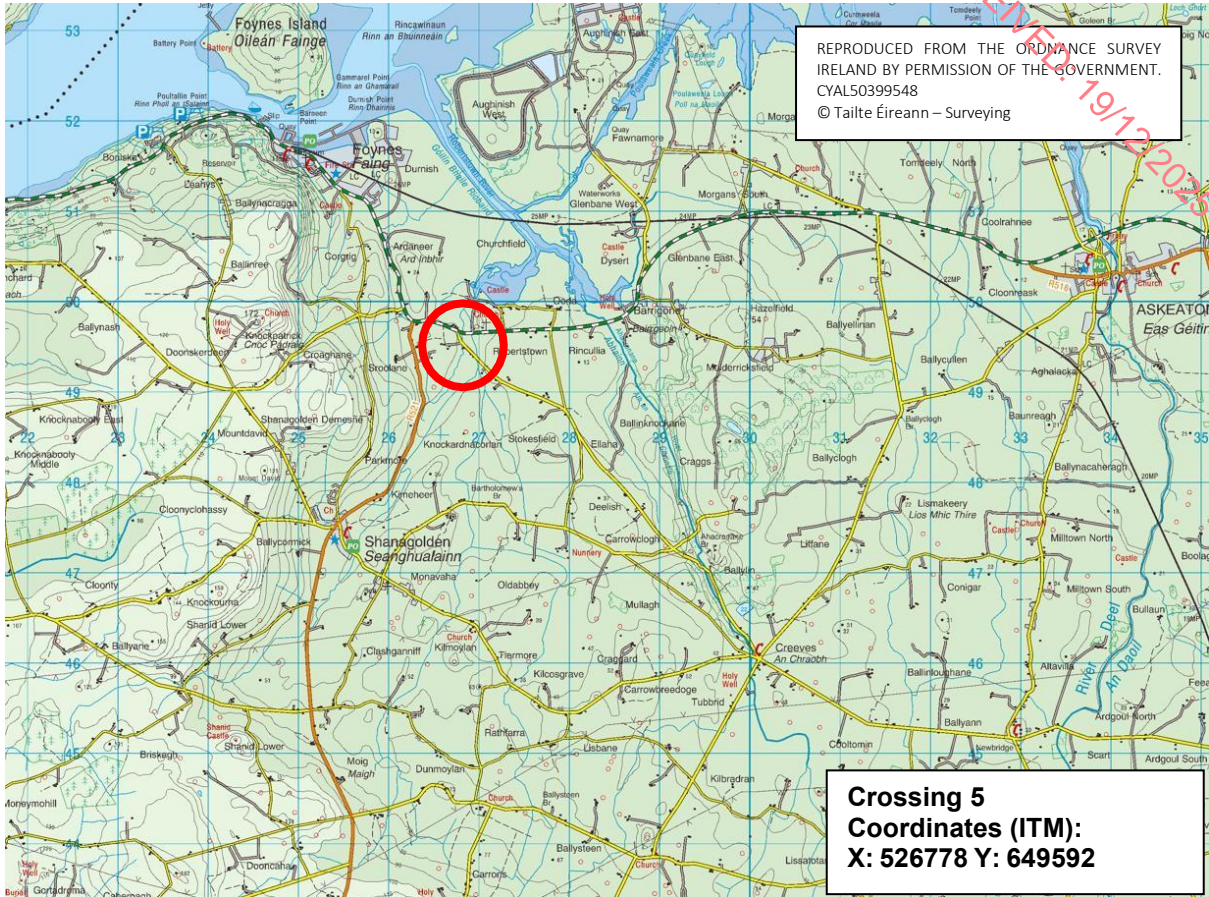
MWP undertook an inspection of the bridge on 06/12/2024. The inspection was conducted in accordance with the requirements of TII guidance document AM-STR-06054, whereby individual components or collections of components of the bridge are assigned a condition rating on a scale of 0 – 5 (**Table 1-1**). An overall condition rating is assigned to the structure on the basis of the component condition ratings; and cannot be worse than the worst rated component or cannot be better than the worst rating for the deck slab, beams/girders/transverse beams, abutments, piers, and bearings. As this is a condition survey only, no repairs have been recommended.

Table 1-1: Description of condition ratings

Rating	Description
0	No or insignificant damage.
1	Minor damage but no need for repair.
2	Some damage, repair needed when convenient. Component is still functioning as originally designed. Observe the condition development.
3	Significant damage, repair needed very soon, i.e., within next financial year.
4	Damage is critical and it is necessary to execute repair works at once, or to carry out a detailed inspection to determine whether any rehabilitation works are required.
5	Ultimate damage. The component has failed or is in danger of total failure, possibly affecting the safety of the road user. It is necessary to implement emergency temporary repair work immediately or rehabilitation work without delay after the introduction of load limitation measures.

Components and elements of the structure will be referred to as ‘left’ or ‘right’ in the longitudinal sense, and ‘upstream’ and ‘downstream’ in the transverse sense. ‘Left’ and ‘right’ sides are orientated when the structure is viewed from the upstream side.

2. Site Location



3. Inventory

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Inventory Report:

Name of Structure:	<i>Sroolane North Bridge</i>		
Date Collected:	<i>06.12.2024</i>		
Initials of Inspectors:	<i>SR/AOD</i>		
ID & Name of Road:	<i>L-1222</i>		
Graphical Location of Bridge:	<i>X</i>	<i>526778</i>	<i>Y 649592</i>
Altitude (m)	<i>-</i>		
Direction of Primary Road:	<i>East – West</i>		
Over Bridge/Under Bridge:	<i>Under Bridge</i>		
ID & Name of Obstacle:	<i>River</i>		
Year of Construction/Reconstruction:	<i>Unknown</i>		
Access Equipment Required:	<i>None</i>		
Additional Details:			
Load Capacity:	<i>Unknown</i>		
Consultant/Designer:	<i>Unknown</i>		
Load Distribution Class:	<i>Distribution in 2 Directions</i>		
Technical Standards:	<i>Unknown Standard</i>		
Technical Installations:	<i>No Technical Installation</i>		
Geometry of Structure:			
Minimum Vertical Clearance (m):	<i>-</i>		
Number of Spans:	<i>1</i>		
Minimum Span Length (m):	<i>2.22</i>		
Maximum Span Length (m):	<i>2.22</i>		
Overall Length (m):	<i>2.22</i>		
Width of Approach (m):	<i>-</i>		
Skew (degrees):	<i>30</i>		
Width of Carriageway (m):	<i>6.50</i>		
Width of Soft Verge, Upstream (m):	<i>2.47</i>		
Width of Soft Verge, Downstream (m):	<i>1.56</i>		
Parapet Minimum Height (m):	<i>1.00</i>		
Width Kerb to Kerb (m):	<i>-</i>		
Width Out to Out (m):	<i>12.75</i>		
Bridge Curved Y/N:	<i>N</i>		

Structure Details:

<i>Superstructure, Principal Type</i>	
Standard Design Y/N:	<i>Y</i>
Design of Elevation:	<i>Arch, One or More Spans</i>
Design of Cross Section:	<i>Masonry Arch</i>
Material of Primary Members:	<i>Stone Masonry</i>
<i>Superstructure, Secondary Type</i>	
Standard Design Y/N:	
Design of Elevation:	<i>Not Applicable</i>

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Design of Cross Section:	<i>Not Applicable</i>
Material of Primary Members:	<i>Not Applicable</i>
<i>Substructure</i>	
Abutments	Type: Abutment Wall, Independent Wingwalls
	Material: Masonry
	Foundation Type: Unknown
Piers	Type: Not Applicable
	Material: Not Applicable
	Foundation Type: Not Applicable
<i>Masonry Arch Details:</i>	
Springing Height Above Mud Line (m):	<i>0.68</i>
Rise of Arch Barrel at Quarterpoints (m):	<i>0.34</i>
Average Depth of Fill (m):	<i>0.20</i>
Span Length (m):	<i>2.22</i>
Rise of Arch Barrel at Crown (m):	<i>0.37</i>
Thickness of Arch Barrel (m):	<i>0.40</i>
Parapet Thickness D/S (m):	<i>0.60</i>
Parapet Thickness U/S (m):	<i>Not Applicable</i>
<u>Arch Facing Stones:</u>	
Material:	<i>Limestone</i>
Square Cut or Rubble:	<i>Square Cut</i>
Average joint Thickness (mm):	<i>< 10</i>
Mortar Type Hard/Soft:	<i>Hard</i>
<u>Arch Barrel Sheeting:</u>	
Material:	<i>Limestone</i>
Square Cut or Rubble:	<i>Square Cut</i>
Average joint Thickness (mm):	<i>10 - 25</i>
Mortar Type Hard/Soft:	<i>Hard</i>
<u>Spandrel Walls:</u>	
Material:	<i>Limestone</i>
Square Cut or Rubble:	<i>Rubble</i>
Average joint Thickness (mm):	<i>10 - 25</i>
Mortar Type Hard/Soft:	<i>Hard</i>
Bridge Details:	
Fixed Bearings on Supports:	<i>Not Applicable</i>
Free Bearings on Supports:	<i>Not Applicable</i>
Type of Parapet:	<i>Masonry</i>
Type of Guardrails:	<i>No Guardrails</i>
Type of Wearing Surface:	<i>Bituminous Surface Dressing</i>
Type of Expansion Joint:	<i>Not Applicable</i>
Remarks:	
<ul style="list-style-type: none"> Overhead ESB line is present on the upstream end. 	

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4. Inspection Report

Client:	Ballyniskey Green Energy Ltd.	Road No.:	L-1222
Area:	County Limerick	Structure Name:	Sroolane North
Date of Inspection:	06/12/2024	Inspectors:	AOD / SR
Weather:	Overcast + Wet	Year of Next PI:	

No.	Component Repair Work Damage Description <i>Type of damage</i>	Con rtg	Mtn req	Spe Ins	Repair Work			
					Qty	Cost	Year	Photos
1	<u>Bridge surface</u> Patch repair on upstream side of road. See Photo 1.1 (looking left). Road markings are worn. Ponding noted on the downstream end. See Photo 1.2 (looking downstream)	2	N	N	-	-	-	2
2	<u>Expansion joints</u> -	-	-	-	-	-	-	-
3	<u>Footways/median</u> Ponding of water was noted. Vegetation and debris on the road verge were also noted. See Photo 3.1 (looking left)	2	N	N	-	-	-	1
4	<u>Parapets/Safety barrier</u> The downstream parapet is in good condition. Significant vegetation growth has obscured any view of the upstream parapet. See Photo 4.1 (looking downstream)	?	N	N	-	-	-	1
5	<u>Embankment/Revetments</u> -	-	-	-	-	-	-	-
6	<u>Wing/Spandrel/Retaining Walls</u> Unable to inspect due to significant vegetation growth. No obvious defects were visible. See Photo 6.1 (looking upstream)	?	N	N	-	-	-	1
7	<u>Abutments</u> Dislodged and lost masonry noted at base of the abutments. Significant loss of pointing noted. See Photo 7.1 (looking upstream)	3	N	-	-	-	-	1
8	<u>Piers</u> -	-	-	-	-	-	-	-
9	<u>Bearings</u> -	-	-	-	-	-	-	-

No.	Component Repair Work Damage Description Type of damage	Con rtg	Mtn req	Spe Ins	Repair Work			
					Qty	Cost	Year	Photos
10	<u>Deck/slab/arch barrel</u> Arch barrel showing signs of deformation, particularly over 4m on the upstream side where 2 holes have formed in the arch. One of these holes has dimensions of 500mm x 450mm x 300 mm. Significant loss of pointing noted. Roots has dislodged masonry from the arch on the upstream side. Water ingress visible through open joints. See Photo 10.1 (looking at arch barrel from downstream end)	3	N	N	-	-	-	3
11	<u>Beams/girders/transverse beams</u> -	-	-	-	-	-	-	-
12	<u>Riverbed</u> Vegetation noted in riverbed. No scouring noted. See Photo 12.1 (looking downstream)	1	N	N	-	-	-	1
13	<u>Other elements</u> -	-	-	-	-	-	-	-
14	<u>Structure in general</u> The following was noted: <ul style="list-style-type: none"> - Arch barrel showing signs of deformation. Two holes were noted on the arch barrel due to tree root dislodgement. - Vegetation is present at parapets, wingwalls, spandrel, riverbed and footways. - Patch repair noted on upstream side of bridge surface. - Dislodged and lost masonry noted at base of the abutments. 	3	N	N	-	-	-	-
					Total			

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Component No. 1 Bridge surface

Patch repair on upstream side of road. See Photo 1.1 (looking left). Road markings are worn. Ponding noted on the downstream end. See Photo 1.2 (looking downstream)

Condition/Maintenance. 2/N



Patch repair on upstream side of road. See Photo 1.1 (looking left). Road markings are worn. Ponding noted on the downstream end. See Photo 1.2 (looking downstream)

Condition/Maintenance. 2/N



Component No. 3 Footways/Median

Ponding of water was noted. Vegetation and debris on the road verge were also noted. See Photo 3.1 (looking left)
Condition/Maintenance. 2/N



Component No. 4 Parapets/Safety barrier

The downstream parapet is in good condition. Significant vegetation growth has obscured any view of the upstream parapet. See Photo 4.1 (looking downstream)

Condition/Maintenance. ? / N



Component No. 6 Wingwall/Spandrel/Retaining Walls

Unable to make an assessment due to significant vegetation growth. No obvious defects were visible. See Photo 6.1 (looking upstream)

Condition/Maintenance. ?/N



Component No. 7 Abutments

Dislodged and lost masonry noted at base of the abutments. Significant loss of pointing noted. See Photo 7.1 (looking upstream)

Condition/Maintenance. 3/N



Component No. 10 Deck/slab/arch barrel

Arch barrel showing signs of deformation, particularly over 4m on the upstream side where 2 holes have formed in the arch. One of these holes has dimensions of 500mm x 450mm x 300 mm. Significant loss of pointing noted. See Photo 10.1 (looking upstream). Roots has dislodged masonry from the arch on the upstream side. See Photo 10.2. Water ingress visible through open joints. See Photo 10.3 (looking at arch barrel from downstream end)

Condition/Maintenance. 3/N



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Arch barrel showing signs of deformation, particularly over 4m on the upstream side where 2 holes have formed in the arch. One of these holes has dimensions of 500mm x 450mm x 300 mm. Significant loss of pointing noted. See Photo 10.1 (looking upstream). Roots has dislodged masonry from the arch on the upstream side. See Photo 10.2. Water ingress visible through open joints. See Photo 10.3 (looking at arch barrel from downstream end).

Condition/Maintenance. 3/N



Arch barrel showing signs of deformation, particularly over 4m on the upstream side where 2 holes have formed in the arch. One of these holes has dimensions of 500mm x 450mm x 300 mm. Significant loss of pointing noted. See Photo 10.1 (looking upstream). Roots has dislodged masonry from the arch on the upstream side. See Photo 10.2. Water ingress visible through open joints. See Photo 10.3 (looking at arch barrel)

Condition/Maintenance. 3/N



Component No. 12 Riverbed

Vegetation noted in riverbed. No scouring noted. See Photo 12.1 (looking downstream)

Condition/Maintenance. 1/N

