

Kildare Bridges Inventory Gathering and Principal Inspections

Structure Name:
Moone Village Bridge
Structure ID:
KE-L8102-002.00



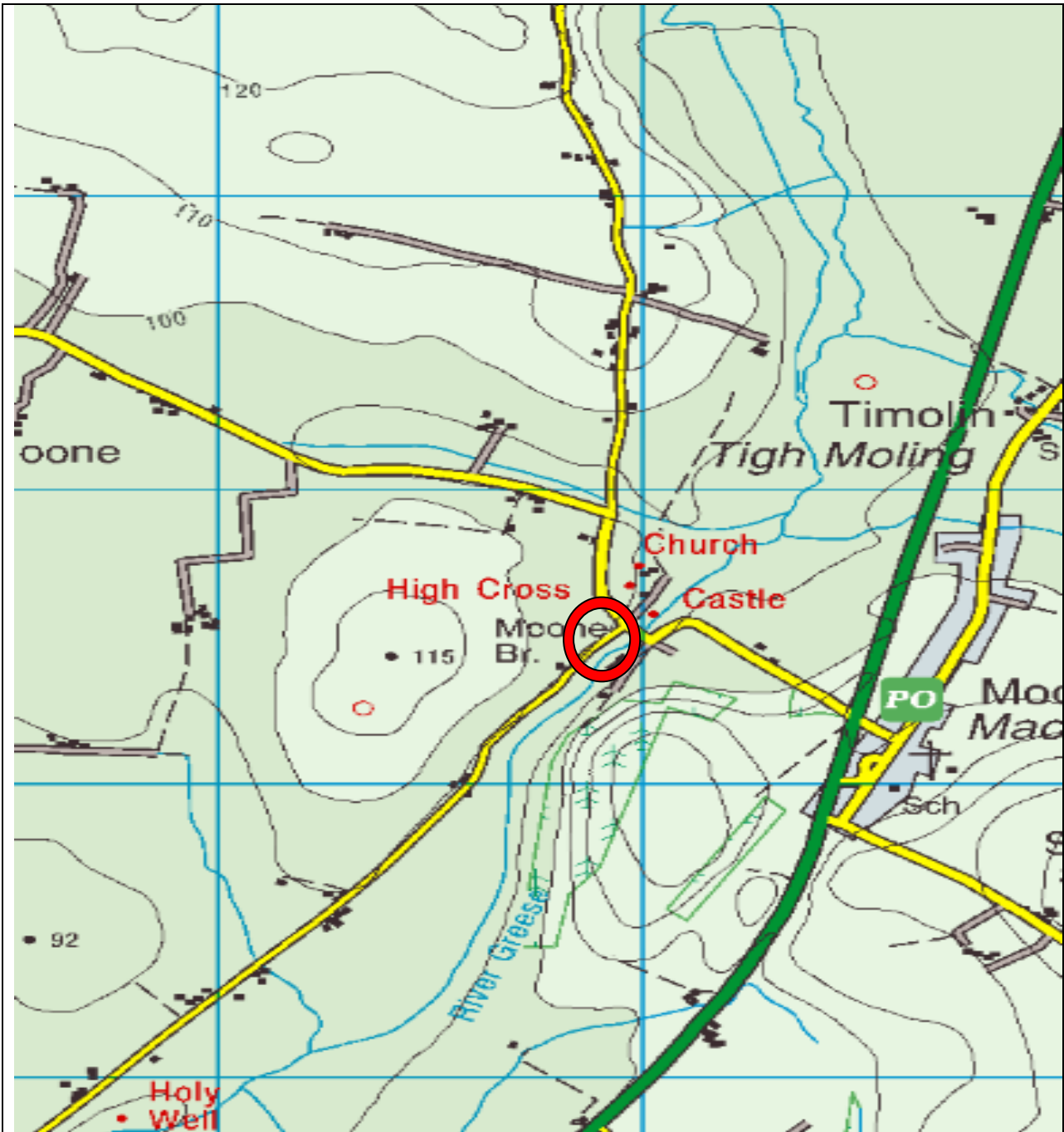
Client:
Kildare County
Council
Áras Cill Dara,
Devoy Park,
Naas,
Co. Kildare



Engineer:
Malachy Walsh and
Partners.
Bessboro Road,
Mahon Technology Park,
Blackrock,
Cork.



Document No	Revision	Prepared By	Checked By	Approved By	Status	Date
16011-6189	A	M Murphy	J Mc Carthy	P O'Donnell	Final Issue	Feb 2015



Project:
Kildare Bridges Inventory Gathering and
Principal Inspections

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Figure:
Figure 1

Title:
Location Map

Structure Name:
Moone Village Bridge



Malachy Walsh and Partners
Consulting Engineers
Park House, Mahon Technology Park,
Bessboro Road, Blackrock, Cork
Tel: 021-4536400 Fax: 021-4536450
<http://www.mwp.ie>

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Maintaining Agent.....:	15	KE - Kildare
Road.....:		
Side of road.....:		
Region.....:	2	Leinster
Struct. reg. no.....:	273	
Year of construction.....:		
Year of reconstruction.....:		
Primary passage Overbridge/Underbridge:		U
Dir. of chainage on primary road.....:		S
Access equipment needed.....:	0	Nothing
Data collected: Date		04 Feb 2015
Inspector Initials....:		MM/DC
Checker Initials.....:		JMC

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Geographical position:

Easting: 279818.84 Northing: 192883.549

Geometry:

Number of spans.....: 1
 Min span length.....(m): 2.50
 Max span length.....(m): 2.50
 Overall length.....(m): 2.50
 Width out-to-out.....(m):
 Width of median.....(m):
 Width of footway left.....(m):
 Width of footway right....(m): 1.47
 Width of carriageway.....(m): 6.15
 Width kerb-to-kerb.....(m): 6.15
 Width of approach.....(m): 6.00
 Area.....(m2):
 Minimum Parapet Height....(m): 0.80
 Width of Soft Verge Left..(m): 2.50
 Width of Soft Verge Right.(m):
 Approach Skew 1.....(deg): 0.00
 Approach Skew 2.....(deg): 0.00
 Bridge curved.....(Y/N): N
 Skew.....(deg): 0

Span Lengths:

Span 1...(m): 2.5 Span 6...(m): Span 11...(m):
 Span 2...(m): Span 7...(m): Span 12...(m):
 Span 3...(m): Span 8...(m): Span 13...(m):
 Span 4...(m): Span 9...(m): Span 14...(m):
 Span 5...(m): Span 10...(m):

Superstructure, principal type:

Standard design(Y/N): Y
 Design of cross section.....: 60 Masonry arch
 Design of elevation.....: 50 Arch, one or more spans
 Material of primary members.....: 60 Stone masonry

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Superstructure, secondary type (if applicable):

Standard design	(Y/N):		
Design of cross section.....:	91	Not applicable	
Design of elevation.....:	91	Not applicable	
Material of primary members.....:	91	Not applicable	

Superstructure, tertiary type (if applicable):

Standard design	(Y/N):		
Design of cross section.....:	91	Not applicable	
Design of elevation.....:	91	Not applicable	
Material of primary members.....:	91	Not applicable	

Masonry arch (if applicable):

Span Length	(m):	2.5
Rise of arch barrel at crown.....	(m):	0.48
Rise of arch barrel, quarter points	(m):	0.35
Springing height above mudline...	(m):	0.32
Thickness of arch barrel.....	(m):	0.46
Average depth of fill.....	(m):	1.74
Parapet thickness.....	(m):	0.45

Material:

Square cut/rubble (S/R):

Arch facing stones...:	92	Unknown	R
Arch barrel sheeting.:	92	Unknown	R
Spandrel walls.....:	92	Unknown	R

Average joint thickness:

Mortar strength
Soft/Hard:

Arch facing stones...:	20	Between 10mm and 25mm	S
Arch barrel sheeting.:	20	Between 10mm and 25mm	S
Spandrel walls.....:	30	More than 25mm	S

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Substructure:

Abutment: Type.....:	10	Abutm. wall, integ. wing walls
Material.....:	10	Masonry
Foundation.....:	10	Spread footing
Pier: Type.....:	91	Not applicable
Material.....:	91	Not applicable
Foundation.....:	91	Not applicable

Details:

Type of parapet.....:	20	Masonry
Type of safety barrier.....:	0	No guard rail
Type of wearing surface.....:	21	Dense bitumen macadam
Type of expansion joint.....:	91	Not applicable
Type of fixed bearings on support...:	91	Not applicable
Type of free bearings on support...:	91	Not applicable
Type of fixed bearings on girders...:	91	Not applicable
Type of free bearings on girders...:	91	Not applicable

Obstacle:

Type of passage.....:	31	River
Passage id.....:		River
Passage name.....:		Timolin River
Road side.....:		

Vertical Clearance:

Primary passage.....(m):	L:	LM:	RM:	R:
Secondary passage.....(m):	L:	LM: 0.95	RM:	R:

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Miscellaneous:

Design Load.....:		30HB
Load Distribution.....:	2	Distribution in 1 direction
Technical Standards.....:	0	Unknown standard
Assessed Capacity Normal.....:		
Assessed Capacity Abnormal.....:		
Weight Restriction.....:		
Owner:	13	Kildare County Council
Maintaining Agent.....:	13	Kildare County Council
Inspection Consultant.....:	115	Malachy Walsh/O'Connor Sutton
Designer/Consultant.....:	92	Unknown
Technical installations.....:	1	Lighting
	4	Water supply pipeline

Remarks:

Width of approach 2 = 6.00m

Chronological Overview			1	2	3	4	5	6	7	8	9	10	11	12	13	14
Date	Activity		Br	Ex	Fo	Pa	Em	Wi	Ab	Pi	Be	De	Be	Ri	Ot	St
04 Feb 2015	Principal inspection		2		1	3	1	2	3			4		1		4

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Principal Inspection:

Date.....: 04 Feb 2015
 Team Leader Name.....: Marie Murphy
 Initials.....: MM/DC
 Weather.....: Dry
 Temperature.....(deg. C): -2

Traffic:Annual Average Daily Traffic.:
 Percentage, light vehicles...:
 Percentage, heavy vehicles...:

Year for next Principal Inspection...: 2017

Remark:

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No	Component Repair work Damage description Type of damage	Repair Work							
		Con rtg	Mtn req	Spe Ins	T P	Qty	Year	Cost	Pho tos
1	Bridge surface Z : Other repair work Soft verge on the East side, rubbing strip to be installed. (Photo 1.1) Grass verge over structure	2	N	N	Z	3	2017	450	1
2	Expansion joints			N					0
3	Footways/median The footway is in good condition. To be swept under routine maintenance. (Photo 3.1)	1	Y	N					1
4	Parapets/Safety barrier J : Masonry repair K : Masonry repointing Stones missing from the north end of the west parapet. (Photo 4.1) The south end of the west parapet has collapsed. (Photo 4.2) Minor loss of pointing to the East parapet. (Photo 4.3) Vegetation to be removed under routine maintenance. Missing	3	Y	N	J K	2 8	2016 2016	2400 1000	3
5	Embankments/Revetments p Heavily overgrown.	1	Y	N					0
6	Wing/Spandrel/Retaining Walls D : Masonry repointing Loss of pointing to the east walls, particularly at the north side. (Photo 6.1) Loss of pointing to the west walls also. (Photo 6.2) Vegetation to be removed under routine maintenance.	2	Y	N	D	12	2017	1500	2

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No	Component	Repair Work							
		Con rtg	Mtn req	Spe Ins	T P	Qty	Year	Cost	Pho tos
	Loss of masonry pointing								
7	Abutments	3	N	N					2
	D : Masonry repointing				D	22	2016	2750	
	Complete loss of pointing throughout both abutments. (Photo 7.1 & 7.2)								
	Loss of masonry pointing								
8	Piers			N					0
9	Bearings			N					0
10	Deck/slab/arch barrel	4	N	Y					5
	Z : Other repair work				Z	14	2015	3500	
	Complete loss of pointing throughout the arch. (Photo 10.1) Circumferential crack at the east end of the structure approximately 1m in. (Photo 10.2) The arch has dropped at the east of the crack. Missing stones in the area of the crack. (Photo 10.3) There are several dropped stones in the centre of the arch. (Photo 10.4) The arch shape appears to have flattened at the west end. (Photo 10.5) The shape of the arch should be reformed using a spray applied concrete and mesh reinforcement. Prior to this a special inspection involving a hydraulic capacity check should be undertaken. If the arch will lhave insufficient capacity upon application of the sprayed concrete then the structure will need to be replaced.								
	Loss of masonry pointing								
11	Beams/girders/transverse beams			N					0

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<p>12 Riverbed The bed is generally in good condition. Vegetation and debris to be removed under routine maintenance.</p>	1	Y	N					0
<p>13 Other elements</p>			N					0
<p>14 Structure in generals Photo 14.1 - East Elevation Photo 14.2 - West Elevation</p>	4	Y	N					2
<p>Total Cost:</p>							11600	

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Component No. 1 Bridge surface

Soft verge on the East side, rubbing strip to be installed. (Photo 1.1)

Condition/Mainten. 2 / N

1.1



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Component No.	3	Footways/median
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The footway is in good condition. To be swept under routine maintenance.
(Photo 3.1)

Condition/Mainten. 1 / Y



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Component No. 4 Parapets/Safety barrier

Stones missing from the north end of the west parapet. (Photo 4.1) The south end of the west parapet has collapsed. (Photo 4.2) Minor loss of pointing to the East parapet. (Photo 4.3) Vegetation to be removed under routine maintenance.

Condition/Mainten. 3 / Y



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Component No.	4	Parapets/Safety barrier
Stones missing from the north end of the west parapet. (Photo 4.1) The south end of the west parapet has collapsed. (Photo 4.2) Minor loss of pointing to the East parapet. (Photo 4.3) Vegetation to be removed under routine maintenance.		
Condition/Mainten.	3	/ Y



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Component No.	4	Parapets/Safety barrier
Stones missing from the north end of the west parapet. (Photo 4.1) The south end of the west parapet has collapsed. (Photo 4.2) Minor loss of pointing to the East parapet. (Photo 4.3) Vegetation to be removed under routine maintenance.		
Condition/Mainten.	3	/ Y



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Component No. 6 Wing/Spandrel/Retaining Walls

Loss of pointing to the east walls, particularly at the north side. (Photo 6.1) Loss of pointing to the west walls also. (Photo 6.2) Vegetation to be removed under routine maintenance.

Condition/Mainten. 2 / Y



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Component No. 6 Wing/Spandrel/Retaining Walls

Loss of pointing to the east walls, particularly at the north side. (Photo 6.1) Loss of pointing to the west walls also. (Photo 6.2) Vegetation to be removed under routine maintenance.

Condition/Mainten. 2 / Y



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Component No.	7	Abutments s
Complete loss of pointing throughout both abutments. (Photo 7.1 & 7.2)		
Condition/Mainten.	3	/ N



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Component No.	7	Abutments s
Complete loss of pointing throughout both abutments. (Photo 7.1 & 7.2)		
Condition/Mainten.	3	/ N



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Component No.	10	Deck/slab/arch barrel
<p>Complete loss of pointing throughout the arch. (Photo 10.1) Circumferential crack at the east end of the structure approximately 1m in. (Photo 10.2) The arch has dropped at the east of the crack. Missing stones in the area of the crack. (Photo 10.3) There are several dropped stones in the centre of the arch. (Photo 10.4) The arch shape appears to have flattened at the west end. (Photo 10.5) The shape of the arch should be reformed using a spray applied concrete and mesh reinforcement. Prior to this a special inspection involving a hydraulic capacity check should be undertaken. If the arch will have insufficient capacity upon application of the sprayed concrete then the structure will need to be replaced.</p>		
Condition/Mainten.	4	/ N



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Condition/Mainten.	4	/ N



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Condition/Mainten.	4	/ N



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Condition/Mainten.	4	/ N



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Condition/Mainten.	4	/ N



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Component No.	14	Structure in generals
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Photo 14.1 - East Elevation
Photo 14.2 - West Elevation

Condition/Mainten. 4 / Y



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Component No.	14	Structure in generals
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Photo 14.1 - East Elevation
Photo 14.2 - West Elevation

Condition/Mainten. 4 / Y

