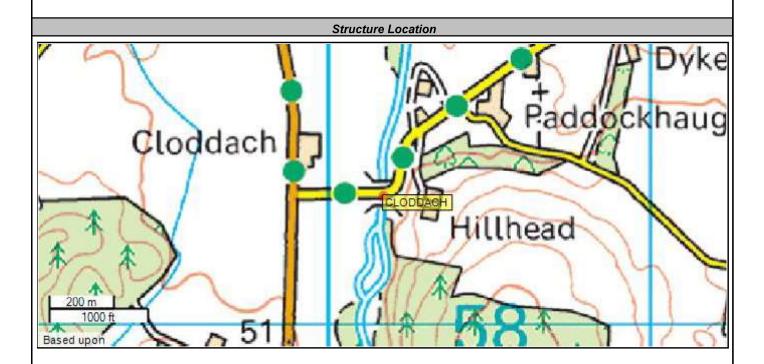
Bridge Name: CLODDACH Bridge Ref/No: C2E/20

### Stucture Document



	Bridge Inspection Pro Forma  Based on Volume 2 Addendum: August 2004										
General Inspection CSS Inspector:										Form 1 of 3 for this bridge	
		e: CLODDACH								Date: 02/07/2019	
Bridg	e Ref/	No: C2E/20		Sp	an Wi	dth: 4	4.55m			Map Ref: 320172, 858398	
				Sp	an Le	ngth:	6.73r	m		Primary Deck Form: 04 Beam / Girder - At Or	
										Below Deck Surface	
		iption: west span								Primary Deck Material: E Steel	
		round elements inspected: `\		Ph	otogra	aphs:	Yes			Secondary Deck Form: 23 Jack Arch - No Transverse Beams	
Num	ber of	construction forms in bridge/	span: 1							Secondary Deck Material: B Plain / Mass Concrete	
Set	No	Element Descri	ption	S	Ex	Def	W	Р	Cost	Comments	
	1	Primary Deck Element (Tab		5	E	1.1	RM	Н		New bridge required	
Deck Elements	3	Secondary Deck Element/S	-	5	E	3.5	RM	Н	500,000	Replace bridge	
me	7	Element From Table 3 Deck Bracing		5	E	1.1	RM	М	500 000	Replace bridge	
Ele	· 'i	Deck Bracing		J	-	'. '	IXIVI	IVI	300,000	Traplace bridge	
ck											
De											
	8	Foundations		1	Α	6.1	?	?	0		
g	9	Abutments (Incl. Arch Sprin	aina)	4	D	2.5	r RM	· H	-	Replace bridge	
Load Bearing Sub Structure	-	Pier/Column	99/	5	E	2.2	RM	Н		Replace bridge	
d Bearing Structure									,	3.	
3ea ruc											
d E											
oa-											
_											
"	16	Substructure Drainage		2	С	8.1	ı	М	1.000	Investigate drainage	
ent		Waterproofing		5	E	14.2	RM	Н		Replace bridge	
)We	19	Painting: Deck Elements		5	Е	4.1	RM	М	500,000	Replace bridge	
Durability Elements	21	Painting: Parapets/Safety F	ences	5	Е	4.1	RM	М	500,000	Replace bridge	
lity											
abi											
Jur											
,,		Handrail/Parapets/Safety Fe	ences	5	E	1.1	RM	Н		Replace bridge	
Safety Elements		Carriageway Surfacing Footway/Verge/Footbridge S	Surfacina	3	D E	9.2	RM	L		Repair Remove vegetation	
me	25	Footway/verge/Footbridge	Surracing	3	=	5.1	RV	L	1,000	Remove vegetation	
Ele											
ety											
safe											
•											
		Invert/River Bed		1	_	7.4	2	2			
		Revetment/Batter Paving		1	A	7.1 3.1	?	?	0		
ge		Embankments		2	В	3.1 11.1	r N	?	0	Cracking in road	
ther Bridg Elements		Lindamanonto		_					٥		
er E											
Other Bridge Elements					l						
٠											
v	35	Approach Rails/Barriers/Wa	lls	3	E	3.5	RM	L	2,000	Repair	
Ancilliary Elements	36	Signs		1	A	1.1	?	?	0		
) Eu		Services		1	Α	1.1	?	?	0	Pipe clipped to upstream parapet at deck	
Ĭ					ļ					level outside	
ary					l						
iii											
۱											
1					<u></u> _						



Multiple Defects										
Element Number	Defect Number	Severity	Extent	Defect	Comments					
9	1	2	D	34	vertical crack in abutment					

No comments recorded by inspector.

Name: Derek Reid Signed: Date: 02/07/2019

### **Engineer's Comments**

No comments recorded by engineer.

Signed: Name: ? Date: 01/01/9999

work Required	ork Required
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Work Required										
Reference No.	Suggested Remedial Work	Priority	Estimated Cost							
1	R Repair / Maintain	High	£500,000							
3	R Repair / Maintain	High	£500,000							
7	R Repair / Maintain	Medium	£500,000							
9	N No Action Monitor Only	?	£0							
9	R Repair / Maintain	High	£500,000							
11	R Repair / Maintain	High	£500,000							
16	To be investigated	Medium	£1,000							
17	R Repair / Maintain	High	£500,000							
19	R Repair / Maintain	Medium	£500,000							
21	R Repair / Maintain	Medium	£500,000							
23	R Repair / Maintain	High	£500,000							
24	R Repair / Maintain	Low	£4,000							
25	REMOVE VEGETATION	Low	£1,000							
33	N No Action Monitor Only	?	£0							
35	R Repair / Maintain	Low	£2,000							

	Based on Volume 2 Addendum: August 2004										
General Inspection CSS Inspector:										Form 2 of 3 for this bridge	
	Bridge Name: CLODDACH									Date: 02/07/2019	
Bridg	ge Ref/	No: C2E/20		Sp	an Wi	dth: 4	4.55m	1		Map Ref: 320172, 858398	
							6.73r	n		Primary Deck Form: 04 Beam / Girder - At Or Below Deck Surface	
Spar	n descr	iption: centre span								Primary Deck Material: E Steel	
All al	oove g	round elements inspected: \	⁄es	Ph	otogra	aphs:	Yes			Secondary Deck Form: 23 Jack Arch - No Transverse Beams	
Num	ber of	construction forms in bridge/	span: 1	•						Secondary Deck Material: B Plain / Mass Concrete	
Set	No	Element Descri	ption	S	Ex	Def	W	Ρ	Cost	Comments	
	1	Primary Deck Element (Tab	le 2)	5	Е	1.1	RM	Н		New bridge required	
ıts	3	Secondary Deck Element/S	i <b>-</b>	5	E	3.5	RM	Н	500,000	Replace bridge	
mei	7	Element From Table 3 Deck Bracing		5	l E	4.4	RM	М	500 000	Replace bridge	
Deck Elements	,	Dook Bracing		J	-	1.1	TUV	IVI	300,000	replace bridge	
					_						
Sub		Foundations Pier/Column		1 5	A E	6.1 2.2	? RM	? H	500,000	Replace bridge	
g Si	11	i ien cojumii		5	-	2.2	I VIVI		300,000	Treplace bridge	
Load Bearing Structure											
ts		Waterproofing		5	E	14.2		Н		Replace bridge	
nen		Painting: Deck Elements		5	E	4.1	RM	M		Replace bridge	
Durability Elements	21	Painting: Parapets/Safety F	ences	5	E	4.1	RM	M	500,000	Replace bridge	
	23	Handrail/Parapets/Safety Fe	ences	5	Е	1.1	RM	Н	500,000	Replace bridge	
ıts		Carriageway Surfacing		3	D	9.2	RM	L	4,000	Repair	
Safety Elements	25	Footway/Verge/Footbridge	Surfacing	3	Е	5.1	RV	L	1,000	Remove vegetation	
	26	Invert/River Bed		5	Е	7.1	RM	Н	20,000	Repair scour to concrete revetment	
<u>e</u>		Revetment/Batter Paving		3	С	3.1	RM	Н	20,000	See element 26	
Other Bridge Elements											
g	38	Services		1	Α	1.1	?	?	0	Pipe clipped to upstream parapet at deck	
Ancilliary Elements										level outside	
					•						

Bri

No multiple defects recorded

## Inspector's Comments

No comments recorded by inspector.

Name: Derek Reid Signed: Date: 02/07/2019

### **Engineer's Comments**

No comments recorded by engineer.

Name: ? Signed: Date: 01/01/9999

# Work Required

Werk Hogania										
Reference No.	Suggested Remedial Work	Priority	Estimated Cost							
1	R Repair / Maintain	High	£500,000							
3	R Repair / Maintain	High	£500,000							
7	R Repair / Maintain	Medium	£500,000							
11	R Repair / Maintain	High	£500,000							
17	R Repair / Maintain	High	£500,000							
19	R Repair / Maintain	Medium	£500,000							
21	R Repair / Maintain	Medium	£500,000							
23	R Repair / Maintain	High	£500,000							
24	R Repair / Maintain	Low	£4,000							
25	REMOVE VEGETATION	Low	£1,000							
26	R Repair / Maintain	High	£20,000							
30	R Repair / Maintain	High	£20,000							

	Bridge Inspection Pro Forma  Based on Volume 2 Addendum: August 2004									
General Inspection CSS Inspector:										Form 3 of 3 for this bridge
		e: CLODDACH								Date: 02/07/2019
Bridg	e Ref/	No: C2E/20		Sp	an Wi	dth: 4	4.55m			Map Ref: 320172, 858398
				Sp	an Le	ngth:	6.73r	n		Primary Deck Form: 04 Beam / Girder - At Or
								Below Deck Surface		
Spar	descr	iption: east span								Primary Deck Material: E Steel
All al	oove gi	round elements inspected: \	⁄es	Ph	otogra	aphs:	Yes			Secondary Deck Form: 23 Jack Arch - No Transverse Beams
Num	ber of	construction forms in bridge/	span: 1							Secondary Deck Material: B Plain / Mass Concrete
Set	No	Element Descri	ption	S	Ex	Def	W	Р	Cost	Comments
	1	Primary Deck Element (Tab		5	E	1.1	RM	Н		New bridge required
Deck Elements	3	Secondary Deck Element/S	-	5	E	3.5	RM	Н	500,000	Replace bridge
me	7	Element From Table 3 Deck Bracing		5	E	1.1	RM	М	500 000	Replace bridge
Ele	· 'i	Deck blacing		J	-	1.1	IXIVI	IVI	300,000	Replace bridge
ck										
De										
	8	Foundations		1	Α	6.1	?	?	0	
Load Bearing Sub Structure	-	Abutments (Incl. Arch Sprin	ging)	4	D	2.5	RM	Н	-	Replace bridge
ig S re		,	<i>5 5</i> ,						,	
d Bearing Structure										
Beatru										
ad S										
Lo										
ıts		Substructure Drainage		2	С	8.1	I	M		Investigate drainage
Durability Elements		Waterproofing		5	E	14.2	RM	Н		Replace bridge
:len		Painting: Deck Elements Painting: Parapets/Safety F	oncos	5 5	E E	4.1	RM RM	M M		Replace bridge Replace bridge
ty E	Z I	Fainting. Farapets/Salety F	ences	3	-	4.1	KIVI	IVI	300,000	Replace bridge
pillid										
ura										
۵										
	23	Handrail/Parapets/Safety Fe	ences	5	E	1.1	RM	Н	500.000	Replace bridge
ıts		Carriageway Surfacing		3	D	9.2	RM	L		Repair
Safety Elements		Footway/Verge/Footbridge	Surfacing	3	Е	5.1	RV	L		Remove vegetation
<u>len</u>		_								
Ϋ́										
afet										
Š										
					<u> </u>					
		Invert/River Bed		1	Α	7.1	?	?	0	
e l		Revetment/Batter Paving		1	A	3.1	?	?	0	
Other Bridge Elements	33	Embankments		1	A	11.1	?	?	0	
r Bi										
the. Ele										
o _										
	25	Approach Rails/Barriers/Wa	ille	3	E	2.5	RM	1	2 000	Repair
Ancilliary Elements		Signs	illo	3 1	<u> </u>   A	3.5 1.1	?	L ?	2,000	
me		Services		1	A	1.1	?	?	_	Pipe clipped to upstream parapet at deck
Ele	55			-		'''				level outside
Z.					İ					
illis										
۱nc										
4					L_					
					_					

um	Bridge Inspection Pro F

Multiple Defects

No multiple defects recorded

## Inspector's Comments

No comments recorded by inspector.

Name: Derek Reid Signed: Date: 02/07/2019

### **Engineer's Comments**

No comments recorded by engineer.

Signed: Name: ? Date: 01/01/9999

# Work Required

Work Required										
Reference No.	Suggested Remedial Work	Priority	Estimated Cost							
1	R Repair / Maintain	High	£500,000							
3	R Repair / Maintain	High	£500,000							
7	R Repair / Maintain	Medium	£500,000							
9	R Repair / Maintain	High	£500,000							
16	To be investigated	Medium	£1,000							
17	R Repair / Maintain	High	£500,000							
19	R Repair / Maintain	Medium	£500,000							
21	R Repair / Maintain	Medium	£500,000							
23	R Repair / Maintain	High	£500,000							
24	R Repair / Maintain	Low	£4,000							
25	REMOVE VEGETATION	Low	£1,000							
35	R Repair / Maintain	Low	£2,000							

General Inspection CSS Inspector:								Based on Volume 2 Addendum: August 20 Form 1 of 3 for this bridge	
		e: CLODDACH							Date: 02/12/2021
		No: C2E/20	Sn	an W	idth: 4	4.55m			Map Ref: 320172, 858398
			<del> </del>						Primary Deck Form: 04 Beam / Girder - At Or
Span Length: 6.73m									Below Deck Surface
Span	descri	ption: west span							Primary Deck Material: E Steel
All ab	ove gr	round elements inspected: Yes	Ph	otogra	aphs:	Yes			Secondary Deck Form: 23 Jack Arch - No Transverse Beams
Numk	per of o	construction forms in bridge/span: 1	<u> </u>						Secondary Deck Material: B Plain / Mass Concrete
Set	No	Element Description	s	Ex	Def	w	Р	Cost	Comments
		Primary Deck Element (Table 2)	4	D	1.2	RM	Н	99	Significant section loss to outside
									beams. Approx 5mm section loss to bottom flange (assumed original flange thickness of 15mm).
	3	Secondary Deck Element/S - Element From Table 3	6	F	0.0	?	?	0	Concrete jack-arches could not be inspected. Some rusting and corrosion visible to corregated metal base. Condition of concrete unknown. No tie rods visible.
	7	Deck Bracing	3	D	1.2	RM	М	99	
$\dashv$		Foundations	1	A	6.1	?	?	0	
3		Abutments (Incl. Arch Springing)	3	В	2.2	RM	M	•	0.8mm vertical crack full height
Structure	11	Pier/Column	2	В	2.2	Z	?	0	Horizontal crack
	15	Superstructure Drainage	5	E	8.1	VD	Н	99	deck drainage totally blocked. Water
	16	Substructure Drainage	5	Е	8.4	VD	Н	99	dripping from superstructure Abutment weep holes not working
	17	Waterproofing	4	E	14.2	W	Н		Soffit of deck wet and dripping throughout with calcite stalactites. Waterproofing failed
		Painting: Deck Elements	5	Е		SBP	Н	99	•
ļ	21	Painting: Parapets/Safety Fences	5	D	4.1	SBP	L	99	
		Handrail/Parapets/Safety Fences	4	В	1.2	RM	Н		Vertical posts flaking at base
	24	Carriageway Surfacing	3	С	9.2	RM	M	99	Resurfacing required
	26	Invert/River Bed	2	В	7.1	N	?	0	Minor scour
,		Aprons	2	В	7.1	N	L		Minor scour
Elements		Fenders/Cutwaters/Collision	3	D	3.6	RM	L	1,000	Blockwork on top of cutwater spalled and
Elements		Protection River Training Works	1	А	99.1	?	?	0	broken out. Small weir upstream to divert water
Ш	31	Wing Walls	3	С	3.5	RM	L	99	towards middle span at low flow. Concrete spalling and brakout to
		Embankments	1	_		?	?	0	detailing at top of wingwall
	<u> </u>	Emparitmento	1 '	<u>  A</u>	<u> 11.1</u>	:	:	J	



Multiple Defects									
Element Number			Defect	Comments					
1	1	3	D	11	Pitting to bottom flange of outside beams.				
11	1	1	Α	22					
31	1	3	В	24	Minor delamination				

No comments recorded by inspector.

Name: Derek Reid	Signed:	Date: 02/12/2021

## Engineer's Comments

No comments recorded by engineer.

Signed: Name: ? Date: 01/01/9999

Work Required									
Reference No.	Suggested Remedial Work	Priority	Estimated Cost						
1	SHOT BLAST AND PAINT	High	£99						
1	R Repair / Maintain	High	£99						
7	R Repair / Maintain	Medium	£99						
9	R Repair / Maintain	Medium	£99						
11	N No Action Monitor Only	?	£0						
15	REMOVE VEGETATION & DEBRIS	High	£99						
16	REMOVE VEGETATION & DEBRIS	High	£99						
17	REPLACE WATERPROOFING	High	£99						
19	SHOT BLAST AND PAINT	High	£99						
21	SHOT BLAST AND PAINT	Low	£99						
23	R Repair / Maintain	High	£99						
24	R Repair / Maintain	Medium	£99						
26	N No Action Monitor Only	?	<b>£</b> 0						
27	N No Action Monitor Only	Low	£1,000						
28	R Repair / Maintain	Low	£1,000						
31	R Repair / Maintain	Low	£99						
31	R Repair / Maintain	Low	£99						
36	R Repair / Maintain	High	£99						

Bridge Bridge	Nam	pection CSS Inspector: e: CLODDACH No: C2E/20							Form 2 of 3 for this bridge
Bridge									Date: 02/12/2021
			Sp	an Wi	dth: 4	4.55m			Map Ref: 320172, 858398
Span d			Primary Deck Form: 04 Beam / Girder - At Or Below Deck Surface						
	descri	ption: centre span							Primary Deck Material: E Steel
		ound elements inspected: Yes	Ph	otogra	aphs:	Yes			Secondary Deck Form: 23 Jack Arch - No Transverse Beams
Numbe	er of c	construction forms in bridge/span: 1	•						Secondary Deck Material: B Plain / Mass Concrete
Set	No	Element Description	S	Ex	Def	W	Р	Cost	Comments
Deck Elements	3	Primary Deck Element (Table 2)  Secondary Deck Element/S - Element From Table 3	6	D F	0.0	RM ?	H ?		Significant section loss to outside beams. Approx 5mm section loss to bottom flange (assumed original flange thickness of 15mm).  Concrete jack-arches could not be inspected. Some rusting and corrosion visible to corregated metal base.
									Condition of concrete unknown. No tie rods visible.
	_	Deck Bracing	3	D	1.2	RM	М	99	
Load Bearing Sub Structure	8	Foundations	1	A	6.1	?	?	0	
ents	15	Superstructure Drainage	5	Е	8.1	VD	Н	99	deck drainage totally blocked. Water dripping from superstructure
urability Elements	17	Waterproofing	4	Е	14.2	W	Н	99	Soffit of deck wet and dripping throughout with calcite stalactites. Waterproofing failed
Durabi		Painting: Deck Elements Painting: Parapets/Safety Fences	5 5	E D	4.1 4.1	SBP SBP	L	99 99	
	23	Handrail/Parapets/Safety Fences	4	В	1.2	RM	Н		Vertical posts flaking at base
Sarety Elements	24	Carriageway Surfacing	3	С	9.2	RM	M	99	Resurfacing required
e	26	Invert/River Bed	5	Е	7.1	RM	Н		Severe scour at centre span undercutting invert. Scour is approx 0.5-1m away from
Other Bridge Elements	27	Aprons	4	D	7.1	RM	Н	99	pier.

un	Bridge	Inspection Pro Forma							Based on Volume 2 Addendum: August 2004
Ancilliary Elements	38	Services	1	Α	1.1	?	?	0	
An									



Multiple Defects								
Element Number	Defect Number	Severity	Extent	Defect	Comments			
1	1	3	D	11	Pitting to bottom flange of outside beams.			

No comments recorded by inspector.

Name: Derek Reid Signed: Date: 02/12/2021

### **Engineer's Comments**

No comments recorded by engineer.

Signed: Name: ? Date: 01/01/9999

## Work Required

Reference No.	Suggested Remedial Work	Priority	Estimated Cost
1	SHOT BLAST AND PAINT	High	£99
1	R Repair / Maintain	High	£99
7	R Repair / Maintain	Medium	£99
15	REMOVE VEGETATION & DEBRIS	High	£99
17	REPLACE WATERPROOFING	High	£99
19	SHOT BLAST AND PAINT	High	£99
21	SHOT BLAST AND PAINT	Low	£99
23	R Repair / Maintain	High	£99
24	R Repair / Maintain	Medium	£99
26	R Repair / Maintain	High	£99
27	R Repair / Maintain	High	£99

I-One	General Inspection CSS Inspector:								Based on Volume 2 Addendum: August 2004
		pection CSS Inspector: e: CLODDACH							Form 3 of 3 for this bridge  Date: 02/12/2021
	e Ref/l	Sn	an W	dth	1 55m				
Dridg	e rem	NO. GZE120	<del>-   '</del>						Map Ref: 320172, 858398
Span Length: 6.73m									Primary Deck Form: 04 Beam / Girder - At Or Below Deck Surface
Span	descri	iption: east span							Primary Deck Material: E Steel
All ab	oove gr	round elements inspected: Yes	Ph	otogra	aphs:	Yes			Secondary Deck Form: 23 Jack Arch - No Transverse Beams
Numl	ber of o	construction forms in bridge/span: 1	•						Secondary Deck Material: B Plain / Mass Concrete
Set	No	Element Description	S	Ex	Def	W	Р	Cost	Comments
Deck Elements		Primary Deck Element (Table 2)	4	D	1.2	RM	H ?		beams. Approx 5mm section loss to bottom flange (assumed original flange thickness of 15mm).
Deck E		Secondary Deck Element/S - Element From Table 3			0.0				Concrete jack-arches could not be inspected. Some rusting and corrosion visible to corregated metal base. Condition of concrete unknown. No tie rods visible.
		Deck Bracing	3	D	1.2	RM	М	99	
Load Bearing Sub Structure	9	Foundations Abutments (Incl. Arch Springing)	3	В	6.1 2.1	? RM	? M	99	Concrete spalling/breakout at beams. Large aggregate size. No reinforcement visible.
Load Bearing Structure	11	Pier/Column	2	В	2.2	N	?	0	Horizontal crack
nts	15	Superstructure Drainage	5	Е	8.1	VD	Н	99	deck drainage totally blocked. Water dripping from superstructure
me	16	Substructure Drainage	5	Е	8.4	VD	Н	99	Abutment weep holes not working
urability Elements	17	Waterproofing	4	Е	14.2	W	Н	99	Soffit of deck wet and dripping throughout with calcite stalactites. Waterproofing failed
ura		Painting: Deck Elements	5	Е		SBP	Н	99	
	21	Painting: Parapets/Safety Fences	5	D	4.1	SBP	L	99	
ments		Handrail/Parapets/Safety Fences Carriageway Surfacing	4 3	ВС	1.2 9.2	RM RM	Н		Vertical posts flaking at base Resurfacing required
Safety Elements									
		Invert/River Bed	2	В	7.1	Ν	?		Minor scour
		Aprons	2	В	7.1	N	L		Minor scour
ridç ints	28	Fenders/Cutwaters/Collision Protection	3	D	3.6	RM	L	1,000	Blockwork on top of cutwater spalled and broken out.
Other Bridge Elements	29	River Training Works	1	Α	99.1	?	?	0	Small weir upstream to divert water
<b>5</b> "	31	Wing Walls	3	С	3.5	RM	L	99	towards middle span at low flow. Concrete spalling and brakout to
	22	Embankments	1	A	11.1	?	?	0	detailing at top of wingwall



Multiple Defects									
Element Number	Defect Number	Severity	Extent	Defect	Comments				
1	1	3	D	11	Pitting to bottom flange of outside beams.				
11	1	1	Α	22					
31	1	3	В	24	Minor delamination				

No comments recorded by inspector.

Name: Derek Reid	Signed:	Date: 02/12/2021

## Engineer's Comments

No comments recorded by engineer.

Signed: Name: ? Date: 01/01/9999

Work Required									
Reference No.	Suggested Remedial Work	Priority	Estimated Cost						
1	SHOT BLAST AND PAINT	High	£99						
1	R Repair / Maintain	High	£99						
7	R Repair / Maintain	Medium	£99						
9	R Repair / Maintain	Medium	£99						
11	N No Action Monitor Only	?	£0						
15	REMOVE VEGETATION & DEBRIS	High	£99						
16	REMOVE VEGETATION & DEBRIS	High	£99						
17	REPLACE WATERPROOFING	High	£99						
19	SHOT BLAST AND PAINT	High	£99						
21	SHOT BLAST AND PAINT	Low	£99						
23	R Repair / Maintain	High	£99						
24	R Repair / Maintain	Medium	£99						
26	N No Action Monitor Only	?	<b>£</b> 0						
27	N No Action Monitor Only	Low	£1,000						
28	R Repair / Maintain	Low	£1,000						
31	R Repair / Maintain	Low	£99						
31	R Repair / Maintain	Low	£99						
36	R Repair / Maintain	High	£99						