[redacted]
Historical Railways Estate
3rd Floor
37 Tanner Row
YORK
YO1 6WP
[redacted]

Our ref: 101465
Your ref:

27th October 2020

http://highwaysengland.co.uk

[redacted]

Sent via Email

Dear [redacted]

Freedom of Information Request – Horse Batch Bridge

I am writing to confirm that we have now completed our search for the information which you requested on 2nd October.

Your Request:

Could you please provide me with all visual inspection, detailed examination and structural assessment reports for overbridge CVB 15m 33ch (known as Horse-Batch Bridge, grid ref ST528464) since 1 October 2013, together with copies of all correspondence/documentation exchanged between Highways England and Jacobs, and internally amongst Highways England's own staff, on the subject of this bridge since 1 January 2018. This should include - but is not limited to - all emails/electronic messages plus attachments, letters, proposals, reports, drawings and plans.

Could you also please provide me with a list of all HRE-managed structures for which HE has confirmed or developing plans for either infilling or demolition. The list should specify: <Structural No.>, <Structure Name>, <Grid Ref>, <current risk ranking>, whether the intention is to <demolish/infill> and whether the plans are <confirmed/developing>.

Our Response:

Copies of all Visual Examination, Detailed Examinations, and all correspondence / documentation exchanged between Highways England and Jacobs, and internally amongst Highways England's own staff, on the subject of Horse Batch Bridge since 1 January 2018 are attached. Please note that redactions have been made under Regulation 13 of the Environmental Information Regulations for personal information.

While there are no Structural Assessment Reports, dated between 1 October 2013 and the date of the FOI request, held by Highways England, this is not uncommon for such structures and full details of all other requested reports are included in the attachment.

I have attached a list of all structures for which we currently have plans for either infilling or demolishing. The schemes listed have all been 'confirmed' as being required within

Highways England, following technical reviews. So design work, planning, ecological surveys, etc, have all been commissioned as needed. However, the schemes are also all currently 'progressing' in that these ecological surveys, planning permissions, permitted developments, EPS licenses, etc, are all still ongoing and have yet to be completed, and so may affect the final scheme notably (be that timing or scope), depending on the outcome.

If you are unhappy with the decisions made by us in relation to your request, you may ask for an internal review. https://www.gov.uk/government/organisations/highways-england/about/complaints-procedure

If you require a print copy, please phone the Information Line on 0300 123 5000; or e-mail info@highwaysengland.co.uk. You should contact me if you wish to complain.

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF

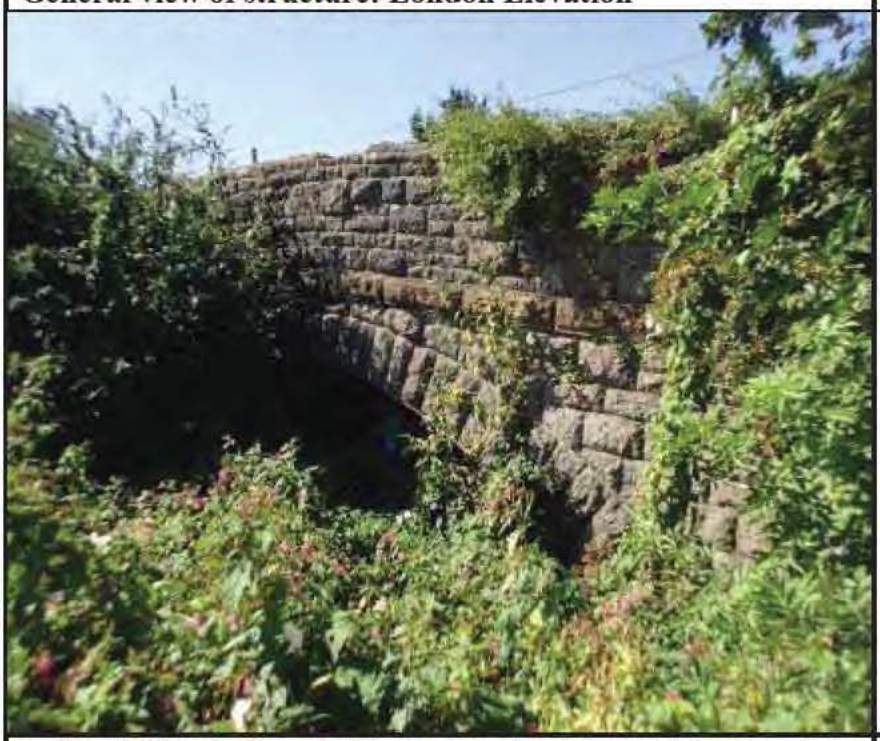
If you have any queries about this letter, please contact me. Please remember to quote reference number 101314 in any future communications.

Yours sincerely

[redacted]
Historical Railways Estate

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 17/09/19
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

General view of structure: London Elevation



Examiner comments

EXAMINATION NOTE

The visual and frequent examinations coincide with each other; the examiner has therefore combined both the visual and frequent examinations within this report.

NEW DEFECTS

Failure of 1no stone has occurred at line of a long-standing displaced fracture located at the U/S quoin of the L/e parapet.

LONG-STANDING DEFECTS

Unless noted, all accessible long-standing defects show no evidence of change since the previous visual examination dated 20/03/18. Any changes within the structure have been highlighted with Red text.

See pages 2 to 4 for details.
See page 5 for frequent tables.

A **Visual Examination** of this structure has been carried out and any deterioration in condition or development of defects or other factors, which might place at risk the public at large, is recorded in the Examiner's Comments section of this document.

Examiner: [redacted]

Signed: [redacted]

Date: 18/09/2019

Access Hazards:

Access permission required through [redacted] business on the L/e. C/e used by [redacted] the examiner has been advised that the best access to the C/e of the structure was [redacted] Wells (low mileage end) has been denoted as the L/e (ESE).

Recommendations:

Rebuild UL parapet quoin - P1 £2.5k.

Signed by Examining Engineer: [redacted]

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 17/09/19
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Examiner Comments on Structure condition

SERVICES

The HE (HRE) 2019 Health and Safety File denotes:-

Electricity - live electrical equipment noted in proximity of bridge.

FACE RINGS

Areas of long-standing surface erosion of the stonework expose the granular materials of the limestone **(photo 11)**.

SOFFIT

Calcite deposits located within 400mm of the rear of C/e voussoirs may cover an underlying fine H/L longitudinal fracture **(photo 12)**. Odd areas of long-standing spalling are noted at the joint lines with associated joint loss up to approx 50mm. Odd stones are found spalled up to 20mm **(photo 13)**.

SPANDREL

Long-standing open joints are noted up to 80mm within the spandrels. The loss covers an approx total area of 1.5m^2.

ABUTMENTS

Access to both abutments is restricted due to 3no storage containers located below the structure. Miscellaneous materials are also located between the face of abutments and the storage containers.

WINGWALLS

U/S, L/e:- dense vegetation is located in front of the wingwall. The vegetation results in poor access. Long-standing coping loss is noted from the toe end over a length of 1.95m. An odd stone is missing along the rake line due to the coping loss. Root ingress around 2.1m from the toe is located below a cut stone at the rake line, resulting in upward displacement of the stone and 2no copings up to 88mm. 3no stones along the rake line adjacent to the root ingress also show some slight forward displacement. The remaining copings to the upper wingwall are found bed fractured up to 20mm **(photos 14 & 15)**.

D/S, L/e:- dense vegetation in front of the wingwall restricts access.

U/S, C/e:- 3no areas of large root ingress are noted along the rake line of the wingwall **(photos 16 & 17)**:-

1st located 3.8m from the toe end. The root ingress does not cause any significant defects at this time.

2nd located 1.9m from the top of wall. The root ingress has resulted in lifting of the stonework to 80mm over a length of 2.5m through to the 3rd area of root ingress located 1.3m from the top of wall. Associated lifting of the copings is also noted up to 50mm at this point. Stonework was found secure to hammer at this time.

D/S, C/e:- odd areas of long-standing moderate root ingress within the upper wingwall result in slight lifting of the associated stones. 2no areas of large root ingress are located at the toe area which results in associated pushing stonework up to 15mm. No access was gained to this area at the time of examination due to dense vegetation restricting access **(photos 18 & 19)**.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Examiner Comments on Structure condition

PARAPETS & PILASTERS

L/e:- internal face of parapet: a long-standing displaced step fracture rises from G/L starting 380mm from the U/S quoin. The fracture rises full height of the parapet terminating at 900mm from the U/S quoin. On removing some vegetation from around the fracture, 1no stone from along the top course of stonework located adjacent to the quoin stone gave way. The examiner placed the failed stone adjacent to the return of the parapet for potential use at time of repair works **(photos 20 & 21)**.

The fracture is found open up to 30mm, change from 28mm, with forward displacement noted up to 40mm, change from 55mm. Please note that the dimension change is due to the examiner having to change the monitoring point following the failure of the stone identified above. Long-standing fracturing within the coping perp joint is noted up to 75mm. The defect is caused by internal root ingress noted through the parapet rising from G/L and extending out through the coping perp joint. Loose stonework was encountered to 6no stones at and adjacent to the fracturing. The loose stones were marked with blue chalk **(photos 22 to 24)**.

Long-standing root ingress is located below the copings around 2.6m from the U/S quoin. The root ingress results in the lifting of copings up to 70mm, change from 65mm, with inward displacement of the copings noted up to 60mm at this point. 3no loose stones were located within the parapet below/ adjacent to the root ingress. The stones were marked with blue chalk **(photos 25 to 27)**.

Long-standing root ingress is also noted within all the coping perp joints over a length of 2.6m from the U/S quoin. Areas of root ingress are also noted along the coping bed which shows evidence of daylight being visible through the coping bed joint below the 1st 2no copings from the U/S quoin **(photos 28 & 29)**.

Widespread joint loss is noted within the parapet from the U/S quoin over a length of 3.8m. The loss is typically noted between 30 and 50mm with deeper loss noted along the fracture line located on the U/S of the parapet. Numerous joints show lifting and cracking mortar within the remaining parapet area **(photo 30)**.

External face: a long-standing step fracture is visible at the U/S quoin open up to approx 16mm. The examiner could not gain access to confirm any change **(photo 31)**.

C/e:- internal face of parapet: a long-standing displaced step fracture rises from G/L approx 760mm from the U/S quoin. The fracture rises full height of the parapet, terminating around 1m from the U/S quoin. The fracture is found open up to 60mm, change from 55mm, with forward displacement noted up to 20mm. Fracturing is also noted within the coping perp joint up to 76mm, change noted from 70mm. The defect is caused by internal root ingress noted through the parapet rising from G/L and extending out through the coping perp joint **(photos 32 to 35)**.
A 2nd long-standing step fracture is located at the quoin rising through 2no courses open to 12mm, change noted from 10mm. Loose stonework was encountered on insertion of a lever alone the line of the fracture **(photos 36 to 38)**.

Joint loss is noted within the parapet from the U/S quoin over a length of 2m. The loss is typically noted between 40 and 100mm with deeper loss noted at the fracture lines. Numerous joints are seen with lifting and cracking mortar within the remaining parapet area **(photo 39)**.

External face of parapet: stonework within 2.2m of the U/S quoin showed moderate movement under hammer with evidence of individual stones showing forward displacement up to 10mm at time of the previous detailed examination. Any change could not be confirmed from G/L **(photo 40)**.

The coping at the U/S quoin is found fractured to approx 6mm. Deep joint loss is also noted with daylight being visible through the bed joint. The examiner was able to lift the coping **(photo 41)**. The 3rd coping from the U/S quoin could be lifted on insertion of a lever **(photo 42)**.

HANDRAILS & FENCING

Dense hedgerows are located from the ends of the parapet to all approaches and confirmation as to whether any fence line are present is not possible, with the exception noted on the U/S, C/e where a rail end post is located; the original straining wires have failed **(photo 43)**.

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 17/09/19
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Examiner Comments on Structure condition

VEGETATION

Areas of dense vegetation are found in front of the structure. The vegetation restricts access around the structure.

Areas of Himalayan Balsam remain at the structure with the worst severity and extent noted on the L/e **(photos 44 & 45)**.

TRACK/ ROAD CONDITION

Metal containers located below the archway restrict access to the structure **(photo 46)**.

Ballast-type stone is located in front of the structure on the L/e. The stone does not extend to the face of structure at this time **(photo 47)**.

Work sheds of a [redacted] company are located in front of the structure on the C/e **(photo 48)**.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
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Examiner Comments on Structure condition

LONDON PARAPET

Please note due to the irregular stone shape accurate measurements are difficult to gain and a (+/-2mm) tolerance should be allowed for at future examinations.

Any changes with be highlighted in RED text

DATE	FRACTURE IN PARAPET	DISPLACEMENT AT FRACTURE	FRACTURE AT COPING
01/03/17	28mm	55mm	63mm
12/09/17	28mm	55mm	65mm
20/03/18	28mm	55mm	65mm
21/09/18	28mm	55mm	75mm
20/03/19	28mm	55mm	75mm
17/09/19	30mm	40mm*	75mm

* new monitoring location due to loss of stone where previous measurement was taken.

COUNTRY PARAPET

DATE	FRACTURE IN PARAPET	DISPLACEMENT AT FRACTURE	FRACTURE AT COPING
01/03/17	50mm	20mm	70mm
12/09/17	55mm	20mm	75mm
20/03/18	55mm	20mm	65mm
21/09/18	55mm	20mm	65mm
20/03/19	55mm	20mm	70mm
17/09/19	60mm	20mm	76mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 1: Country Elevation

Photograph 2: general view of the soffit

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 17/09/19
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

Photograph 3: general view of the U/S abutment

Photograph 4: general view of the D/S abutment

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
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Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 5: general view of the U/S, L/e wingwall
Dense vegetation is located in front of the wingwall

Photograph 6: general view of the D/S, L/e wingwall
Dense vegetation restricts access to the wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 7: general view of the U/S, C/e wingwall

Photograph 8: general view of the D/S, C/e wingwall
Stored materials restrict access to the wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 9: general view over the structure from the U/S

Photograph 10: general view over the structure from the D/S

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
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Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 11: example of long-standing erosion within the stone voussoirs
C/e shown

Photograph 12: calcite deposits located to the rear of the C/e voussoirs

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
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Photographs of structure

Photograph 13: example of long-standing spalling action within the soffit

Photograph 14: long-standing coping loss is noted along the U/S, L/e wingwall

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Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

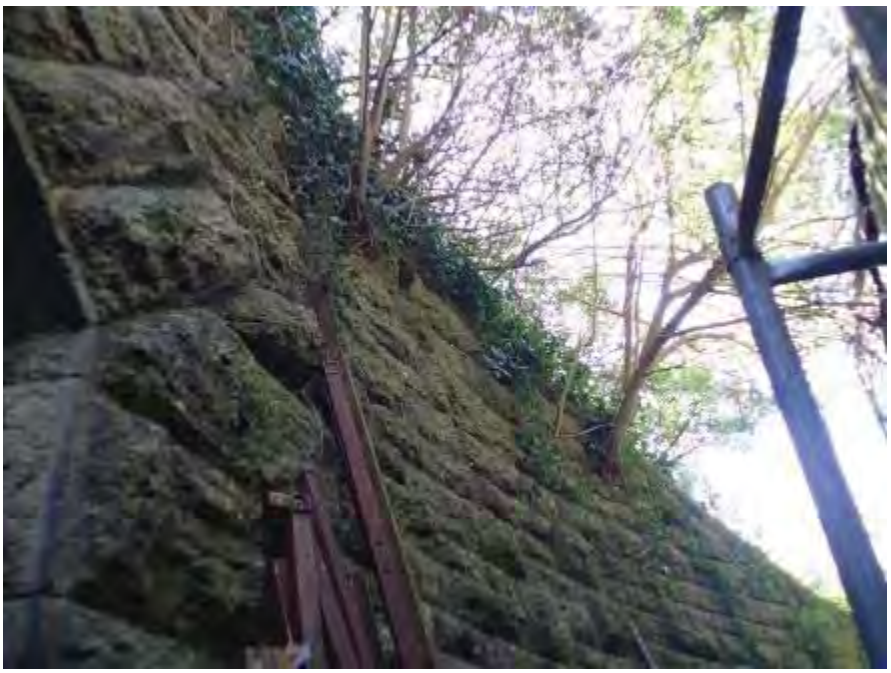
Photograph 15: root ingress along the rake line of the U/S, L/e wingwall results in lifting copings

Photograph 16: example of root ingress located along the rake line of the U/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 17: example of root ingress located along the rake line of the U/S, C/e wingwall



Photograph 18: example of root ingress located along the rake line of the D/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 19: no access gained to the toe end of the D/S, C/e wingwall due to vegetation

Photograph 20: failure of stone at line of displaced fracture at the U/S quoin of the L/e parapet occurred during the examination

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

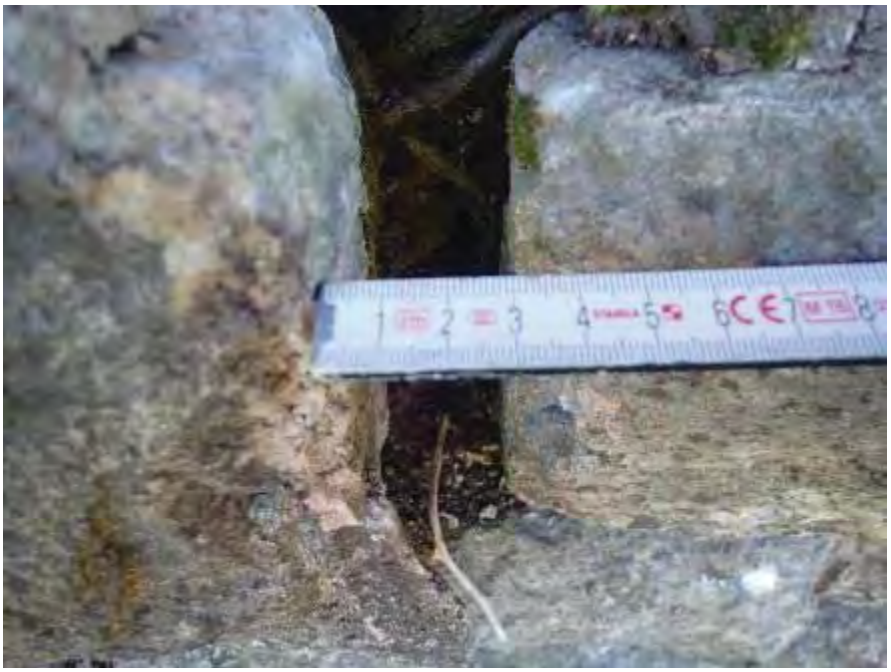
Photographs of structure

Photograph 21: the failed stone was placed adjacent to the U/S return of the parapet

Photograph 22: long-standing displaced fracture located at the U/S quoin of the L/e parapet
Stones marked with blue chalk are found loose

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure



Photograph 23: the fracture at the U/S, L/e quoin is open to 30mm change from 28mm

Photograph 24: displacement along the fracture is noted up to 40mm The examiner changed the monitoring point following failure of a stone

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 25: long-standing root ingress is located below the L/e copings approx 2.6m from the U/S quoin
Stones marked with blue chalk are found loose

Photograph 26: copings are lifting up to 70mm due to the root ingress
Change noted from 65mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
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Photographs of structure

Photograph 27: long-standing inward displacement of the copings was noted up to 60mm

Photograph 28: evidence of root ingress extending blow the copings towards the U/S quoin

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 29: daylight is visible through the coping bed

Photograph 30: example of lifting and cracking mortar noted along the L/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 31: a long-standing step fracture is located at the U/S quoin within the external face of the L/e parapet

Photograph 32: a long-standing displaced fracture is located at the U/S quoin of the C/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 33: displaced fracture at the U/S quoin of the C/e parapet is open to 60mm from 55mm

Photograph 34: displacement within the C/e parapet noted up to 20mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
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Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

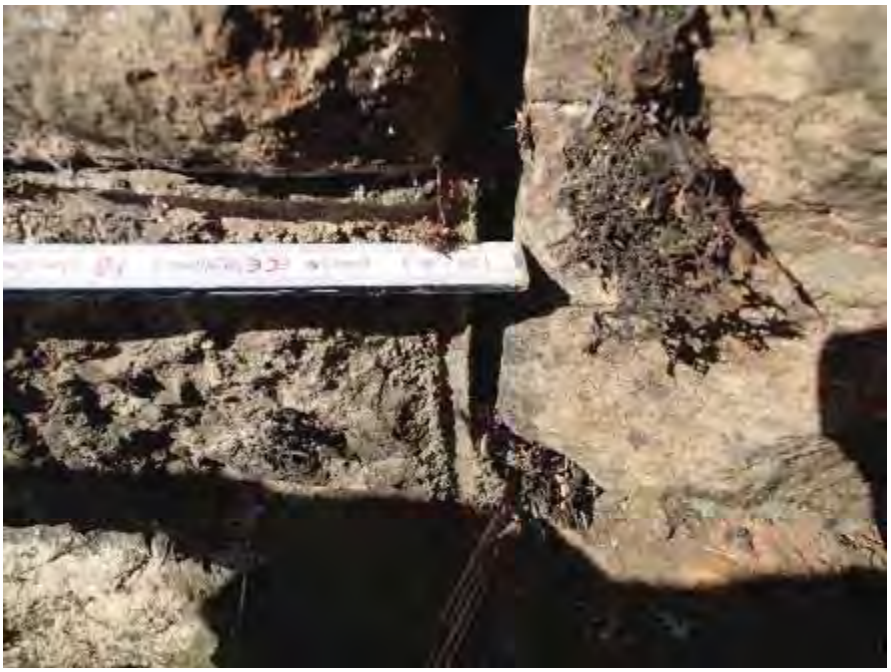
Photographs of structure

Photograph 35: fracture at coping within the C/e parapet open to 76mm from 70mm

Photograph 36: step fracture at the U/S quoin within the C/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure



Photograph 37: the fracture is open to 12mm
Change noted from 10mm

Photograph 38: loose stonework was noted on insertion of lever at line of fracture

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 39: example of lifting and cracking mortar noted along the C/e parapet

Photograph 40: long-standing loose and displaced stonework
is noted within the external face of the C/e parapet at the U/S quoin

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 41: fractured and loose coping is noted at the U/S quoin of the C/e parapet

Photograph 42: a coping on the U/S of the parapet was found to lift on insertion of a lever

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 43: long-standing failure of straining wires noted to the U/S, C/e approach fence

Photograph 44: widespread Himalayan Balsam is noted on the L/e of the structure

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 45: odd areas of Himalayan Balsam are also noted on the C/e of the structure

Photograph 46: metal storage containers below the structure restrict access

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	17/09/19
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph 47: stone ballast stored in front of the structure on the L/e

Photograph 48: work shed located in front of the structure on the C/e

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 21/09/18
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

General view of structure: London Elevation

Examiner comments

NEW DEFECTS

No new defects were identified at the time of examination.

LONG-STANDING DEFECTS

Unless noted, all accessible long-standing defects show no evidence of change since the previous detailed examination dated 12/09/17.

See pages 2 & 3 for details.

A **Visual Examination** of this structure has been carried out and any deterioration in condition or development of defects or other factors, which might place at risk the public at large, is recorded in the Examiner's Comments section of this document.

Examiner: [redacted]

Signed: [redacted]

Date: 23/10/2018

Access Hazards:

Access permission required through local business on the L/e. C/e used [redacted]. The examiner has been advised that the best access to the C/e of the structure was [redacted] Wells has been denoted as the L/e (ESE).

Recommendations:

(broadly as previous)

Provide new fencing to all approaches - PS £5k.

Remove Himalayan Balsam from LE of structure using specialist contractor - P1 £15k.

Rebuild US parapet quoins - P1 £10k.

Remove root ingress and fully repoint widespread open/non-existent joints throughout remaining parapets - P1 £20k.

(note examiner's comments regarding build up of track ballast to LE of old formation.

Signed by Examining Engineer: [redacted]

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 21/09/18
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Examiner Comments on Structure condition

SERVICES

The HE (HRE) 2018 Health and Safety File denotes "no data available".

There is no evidence in the HE (HRE) 2018 Health and Safety File, previous examination reports nor as noted on site to confirm the presence of any statutory services affecting the structure.

FACE RINGS

Areas of long-standing surface erosion of the stonework expose the granular materials of the limestone.

SOFFIT

Calcite deposits located within 400mm to the rear of C/e voussoirs may cover an underlying fine H/L longitudinal fracture **(photo 10)**.

Odd areas of long-standing spalling noted at the joint lines with associated joint loss up to approx 50mm. Odd stones are found spalled up to 20mm **(photo 11)**.

SPANDREL

Long-standing open joints are noted up to 80mm within the spandrels, the loss covering an approx total area of 1.5m^2.

ABUTMENTS

Access to both abutments is restricted due to 3no storage containers located below the structure. Miscellaneous materials are also located between the face of abutments and the storage containers.

WINGWALLS

U/S, L/e:- long-standing coping loss is noted from the toe end over a length of 1.95m. An odd stone is missing along the rake line due to the coping loss. Root ingress around 2.1m from the toe located below a cut stone at the rake line results in upward displacement of the stone and 2no copings up to 88mm. 3no stones along the rake line adjacent to the root ingress also show some slight forward displacement. The remaining copings to the upper wingwall are found bed fractured up to 20mm **(photos 12 & 13)**.

D/S, L/e:- dense vegetation in front of the wingwall restricts access.

U/S, C/e:- 2no areas of large root ingress are noted along the rake line of the wingwall:-

1st located 3.8m from the toe end. The root ingress does not cause any significant defects at this time;

2nd located 1.9m from the top of wall. The root ingress has resulted in lifting of the stonework to 80mm over a length of 2.5m through to the 3rd area of root ingress located 1.3m from the top of wall. Associated lifting of the copings is also noted up to 50mm at this point. Stonework was found secure to hammer at this time **(photo 14)**;

D/S, C/e:- Odd areas of long-standing moderate root ingress within the upper wingwall results in slight lifting of the associated stones **(photo 15)**. 2no areas of large root ingress are located at the toe area which results in associated pushing stonework up to 15mm. No access was gained to this area at the time of examination due to dense vegetation restricting access **(photo 16)**.

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 21/09/18
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Examiner Comments on Structure condition

PARAPETS

Both parapets suffer from long-standing root ingress along the coping lines and towards the U/S quoin areas. The root ingress results in long-standing displacement of stonework which is currently monitored under the frequent programme (see frequent report dated 21/09/18 for full details) **(photos 17 to 21)**.

TRACK/ ROAD CONDITION

Ballast type stone has been installed in front of the structure on the L/e since the previous examination. The stone does not extend to the face of structure at this time **(photo 22)**.

Areas of Himalayan Balsam remain at the structure and were located adjacent to the structure on the U/S, L/e and in front of the U/S C/e wingwall **(photos 23 & 24)**.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	21/09/18
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 1: Country elevation

Photograph no 2: general view of the soffit

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	21/09/18
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 3: general view of the U/S abutment

Photograph no 4: general view of the D/S abutment

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	21/09/18
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 5: general view of the U/S, L/e wingwall

Photograph no 6: access to the D/S, L/e wingwall was restricted due to vegetation growth

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	21/09/18
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 7: general view of the U/S, C/e wingwall

Photograph no 8: general view of the D/S, C/e wingwall

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 21/09/18
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

Photograph no 9: general view over the structure from the U/S

Photograph no 10: calcite deposits located to the rear of the C/e voussoirs

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 21/09/18
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

Photograph no 11: example of long-standing spalling action within the soffit

Photograph no 12: long-standing coping loss noted along the U/S, L/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	21/09/18
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 13: root ingress along the rake line of the U/S, L/e wingwall results in lifting copings

Photograph no 14: example of long-standing root ingress along the rake line of the U/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	21/09/18
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 15: example of long-standing root ingress along the rake line of the D/S, C/e wingwall

Photograph no 16: access to the toe end of the D/S, C/e wingwall was restricted due to dense vegetation

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 21/09/18
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

Photograph no 17: long-standing root ingress noted along the copings and within the L/e parapet towards the U/S quoin

Photograph no 18: long-standing displacement of stonework at the U/S quoin of the L/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	21/09/18
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 19: long-standing fracture located within the external face of the L/e parapet at the U/S quoin

Photograph no 20: long-standing root ingress noted along the copings and within the C/e parapet towards the U/S quoin

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 21/09/18
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

Photograph no 21: external face of the C/e parapet stonework within 2.2m of the U/S quoin showed movement under hammer at time of the previous detailed examination

Photograph no 22: stone installed in front of the structure on the L/e

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	21/09/18
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

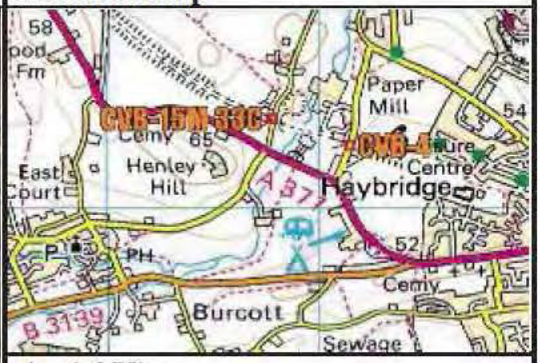
Photograph no 23: Himalayan Balsam located on the U/S of structure on the L/e

Photograph no 24: Himalayan Balsam located in front of the U/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

General view of structure: London Elevation

Location map



Aerial View

A **Detailed Examination** of this structure has been carried out to establish the condition, identify the nature, severity and extent of defects, ascertain the rate of deterioration by reference to the previous examination reports and identify the scope, extent and urgency of any remedial actions required to ensure the continued safety and long-term integrity of the structure.

Examiner: [redacted]

Date: 10/10/2017

Signed: [redacted]

Access Hazards:

Access permission required through local business on the L/e. The C/e is used [redacted] the examiner has been advised that the best access to the C/e of the structure is [redacted] Wells has been denoted as the L/e (ESE).

Recommendations:

Provide new fencing to all approaches - PS £5k.

Remove Himalayan Balsam from LE of structure using specialist contractor - P1 £15k.

Rebuild US parapet quoins - P1 £10k.

Remove root ingress and fully repoint widespread open/non-existent joints throughout remaining parapets - P1 £20k.

Remove significant tree growth and rebuild UL and CE wingwalls - P2 £20k.

Repoint joint loss to LE extrados and US spandrels - P3 £1.5k.

Signed by Examining Engineer: [redacted]

ELR: CVB	Structure No:	Mileage: 15m 33ch	Examination date: 12/09/17
Route: Cheddar Valley Branch			OS ref: ST 528 464
Name: Horse Batch Bridge, Near Wells			Type: Over bridge

Parapet Risk Assessment Pro Forma

Road over Path or Navigation

HA - HRE Ref 1483 Examiner [redacted] Date 12/09/2017

Checker Date 11/10/2017

Likelihood:-

Calculate the return Period of an accident occuring.

$T_0 = K(35-EF)/(AADT score)$

Direct input required

Determined/calculated output

K is a constant. 5 for cars, 20 for LGV's (Large Goods Vehicles)

EF= Environment Factor from Table G1

Notes:

Table G1 Environmental Factors (based on IAN97/07)

Factor	Score (derived from IAN97/07)		
Road Alignment (Horizontal)	Score 1 for straight road with at least 7.3m carriageway Score 3 for straight less than 7.3m carriageway or curved at least 7.3m carriageway Score 7 for curved road less than 7.3m carriageway Score 10 for reverse curves less than 7.3m carriageway	7	Type the appropriate score in the shaded cell
Road Alignment (Vertical)	Score 1 for level or constant grade Score 2 for gentle gradients and/or slight hump crest Score 3 for moderate gradients and/or hump crest with inter-visibility Score 5 for steep gradients and/or hump crest with no inter-visibility	5	
Speed of traffic	Score 1 for <10mph Score 2 for <30mph (or less) Score 5 for <50mph Score 7 for >70mph	3	
Road Verges and Footpaths	Score 1 for at least 2m on both sides Score 2 for at least 1m on both sides Score 3 for one or both verges less than 1m	2	
Other Hazards increasing likelihood of RTA	Score 1 for no obvious additional hazards, including no significant risk of freezing Score 5 for single site specific hazard including risk of freezing conditions Score 9 for multiple minor hazards or single major hazard (e.g. farm access, road junction, private driveway, lay-by, nearby junctions, bus stop, school, hospital, additional visibility limits (consider overhanging trees), etc	9	
	Total Environment Factor (EF) =	26	Derived value

AADT = Annual Average Traffic Flow

Use www.dft.gov.uk/traffic-counts/cp.php to determine nearest relevant traffic count point and then use T.G3. If there is no traffic count data, use T.G2 directly.

Table G2: Derivation of "Score" equivalent for AADT

AADT Score	AADT	Typical description		
1	<50	Minor single lane (generally green lane or farm access)		
2	50 – 100	Minor two lane (generally unclassified)		
3	101 – 500	Local access (generally C or B class)		3
4	501 – 1,500	Collector (no buses)	(generally "Other Strategic" roads)	Type the score Score in the appropriate cell.
5	1,501 – 5,000	Collector (with buses or industrial)		
4	501 – 1,500	(generally "Primary Routes") Usually, roads of sufficient size will either have a known AADT or can be "deduced" by comparison to a nearby road that does		
5	1,501 – 5,000			
6	5,001 – 20,000			Where different site conditions and AADT's exist, it is permissible to use T. G3. However these Tables G1 & G2 appears to suit HRE's sites.
7	20,001 – 40,000			
8	40,001 – 60,000			

AADT Score = 3

AADT score for LGV's only 2

Necessary for assessment of parapets for LGV's. NB. LGV's are generally not contained and therefore the consequence calculation should take this into account.

Return Periods:-

CARS $T_0 = 5x(35-EF)/AADTscore =$ 15

LGV's $T_0 = 20x(35-EF)/AADTscore =$ 90

Consequence:-

Determine the containment status of the parapet and debris exit velocity.

Input Data:-

C/End Parapet height from verge m	=	1.150
C/End Parapet thickness m	=	0.500
Road Spood kph	=	48.28
Assumed parapet density kg/m3	=	2200
Bed Joint Reinforcement (BJR) present? Y or N	=	N
Assumed mortar bond strength: high, intermediate or low	=	Low

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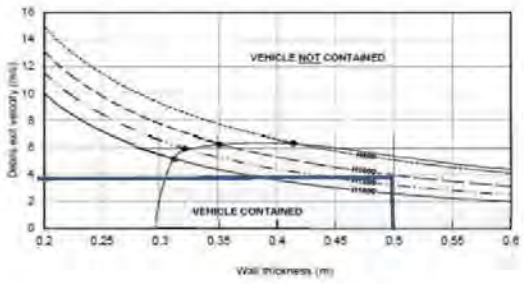
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

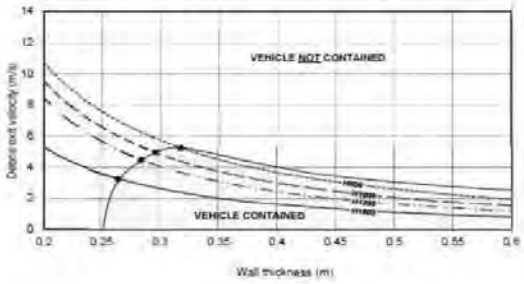
Parapet Risk Assessment Pro Forma

Use the appropriate graph below:-



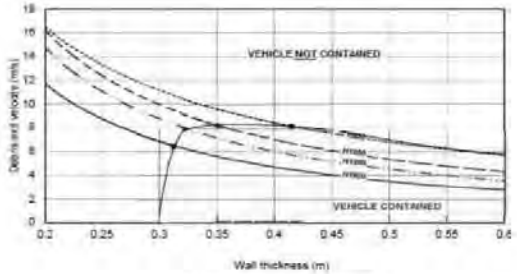
(a) Low unit-mortar bond strength

Road speed 50 mph
Low bond strength



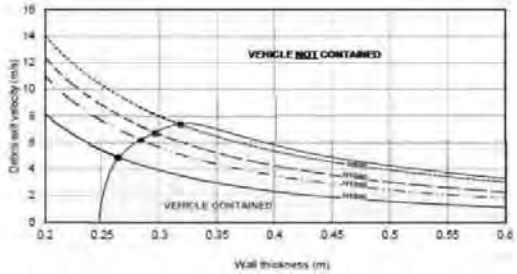
(b) High unit-mortar bond strength

Road speed 50 mph
High bond strength



(a) Low unit-mortar bond strength

Road speed 70 mph
Low bond strength



(b) High unit-mortar bond strength

Road speed 70 mph
High bond strength

Figure 3 Parapet performance chart: N2 (110km/h) containment for mortared parapets of various height, H (mm) (density: 2200kg/m³)

Vehicle contained? Y or N: Y — Debris exit velocity = 3.75 m/s

Number of vehicles affected: $N_{total} = N_{errant} + N_{direct} + N_{indirect}$

N_{errant} = 1 if vehicle is not contained, or deemed 1 for any LGV

N_{errant} = 0 if vehicle is contained

N_{errant} Cars = 0 — N_{errant} LGV = 1

N_{direct} = the vehicles or users affected by debris ejection below the bridge, and depends on debris spread and spacing.
Determine debris spread:

Fig 5

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
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Parapet Risk Assessment Pro Forma

Height to parapet above datum h, m =

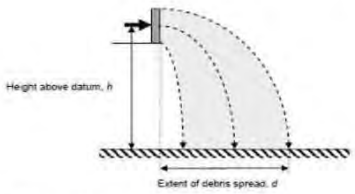

Figure 5 Extent of debris spread: definition

Table 8: Extent of debris spread: values of *d*

Mean debris exit velocity (m/s) (from Figure 2 or 3)	Height above datum *h* (to mid-height of parapet)				
	2m	4m	6m	8m	10m
1	1	2	2	3	3
2	3	4	4	5	6
3	4	5	7	8	9
4	5	7	9	10	11
5	6	9	11	13	14
6	8	11	13	15	17
7	9	13	15	18	20
8	10	14	18	20	23
9	11	16	20	23	26
10	13	18	22	26	29
11	14	20	24	28	31
12	15	22	27	31	34

Debris spread = 9 m

Presumed values used in working out Spacing:
Walking speed - 4.5 kph
Horse speed - 7 kph
Barge speed - 9 kph
Light Railway speed - 16 kph
Tractor speed - 16 kph
Cycling speed - 24 kph

Spacing = m per user

Spacing = 5400 m

assume 20 passages/day at approx 4.5 kph. Therefore average spacing = ((4.5/20) x 24)*1000

N_{direct} = Debris Spread/Spacing = 0.00167

$N_{indirect}$: 0

No. of users passing beneath subject to indirect effects.

$N_{total} = N_{errant} + N_{direct} + N_{indirect}$ = 0.00167

FAR Calculation: FAR = 100,000,000/[(365x24xT_0)/N]

Cars:- FAR = 1.26839

LGV:- FAR= 127.051

Total FAR = 128.319 **<300. Safer than travel by motorcycle. Satisfactory.**

Table 6: Fatal Accident Rate (FAR) for common activities

Activity	FAR
Travel by bus	1
Travel by car or by air	15
Walking beside a road	20
Travel by motorcycle	300
Travel by helicopter	500

For HE - HRE it is suggested that:

FAR scores greater than 300, improvements should be considered.

FAR scores greater than 500, strengthening or reconstruction should be considered.

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 12/09/17
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Name of Part :	G-good F-fair P-poor	Remarks (Refer to parts by name)
Main Girders	/	**SERVICES** There is no evidence in the HE (HRE) 2015 Health and Safety File, previous examination reports nor as noted on site to confirm the presence of any statutory services affecting the structure. **FACE RING VOUSSOIRS** ***L/e***:- areas of long-standing surface erosion of the stonework expose the granular materials of the limestone **(photo 17)**. Individual perp joints show loss up to 20mm with long-standing joint loss noted along the extrados of the arch up to 50mm. The worst extent of loss is located on the D/S **(photos 18 & 19)**. ***C/e***:- areas of long-standing surface erosion of the stonework expose the granular materials of the limestone **(photo 20)**. Individual perp joints show loss up to 10mm with odd areas of long-standing joint loss noted along the extrados of the arch up to 40mm. **SOFFIT** Calcite deposits located within 400mm of the rear of C/e voussoirs may cover an underlying fine H/L longitudinal fracture **(photo 21)**. Odd areas of long-standing spalling are noted at the joint lines with associated joint loss up to approx 50mm. Odd stones are found spalled up to 20mm **(photo 22)**. Long-standing carbon deposits with areas of lichen and efflorescence staining are noted within the soffit **(photo 23)**.
Cross Girders	/	
Rail Bearers	/	
Floor	/	
Rivets & Bolts	/	
Face Ring Voussoirs	**F**	
Soffit	**F**	
Spandrels	**F**	
Abutments	**N/E**	
Piers	/	
Buttresses	/	
Wing & Retaining Walls	**F**	
Pointing	**P**	
Parapets & Pilasters	**P**	
Columns & Cylinders	/	
Trestles & Crossheads	/	
Bedstones & Cills	/	
Bearings	/	
Ballast plates/Boards	/	
Longitudinal timbers	/	
Waterproofing	**N/E**	
Drainage	/	
Gutters & Downpipes	/	
Handrails and Fencing	**N/E**	
Painting	/	
Track/Road Condition	**P/G**	
Foundations	**N/E**	
Vegetation	**P**	
Bridge Number/Mileage	**G**	

TICK AS APPROPRIATE		**Notes/Comments:** Photographs 1 to 15 show general views of structure. Photographs 16 to 86 to show defects. Full ladder access around the structure was restricted due to poor ground conditions on the L/e and buildings/ materials installed in front of the structure on the C/e **(photos 1 & 16)**.
Change of Construction	/	
Weight Restriction Plates	/	
Inaccessible Parts	✓	
Tell Tales	/	
Plumbing Points	/	

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
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Examiner Comments on Structure condition

SPANDRELS

L/e:- open joints are found up to 50mm deep covering an approx total area of 1.25m^2 **(photo 24)**. Areas of long-standing surface erosion of the stonework expose the granular materials of the limestone **(photo 25)**.

C/e:- individual joints are found lifting and cracking with open joints found up to 80mm deep covering an approx total area of 0.25m^2 **(photo 26)**.

ABUTMENTS

N/E:- access to both abutments was restricted due to 3no storage containers located below the structure. Miscellaneous materials are also located between the face of abutments and the storage containers.

The visible stonework within both abutments generally appeared good with areas of lichen and dry staining noted. A series of fractures were noted within the C/e quoin stones within the D/S abutment open between 1 and 2mm **(photos 27 & 28)**.

WINGWALLS

U/S, L/e:- individual joints are found lifting and cracking. Open joints up to 80mm with deeper loss at areas of noted displacement cover an approx total area of 1m^2. Areas of long-standing surface erosion of the stonework expose the granular materials of the limestone. Long-standing coping loss is noted from the toe end over a length of 1.95m. An odd stone is missing along the rake line due to the coping loss **(photo 29)**. Root ingress around 2.1m from the toe located below a cut stone at the rake line results in upward displacement of the stone and 2no copings up to 88mm. 3no stones along the rake line adjacent to the root ingress also show some slight forward displacement **(photos 30 & 31)**. The remaining copings to the upper wingwall are found bed fractured up to 20mm **(photo 32)**.

D/S, L/e:- open joints are typically noted between 10 and 35mm with a max loss up to 80mm. The loss covers an approx total area of 1m^2 **(photo 33)**. Areas of long-standing surface erosion of the stonework expose the granular materials of the limestone. Long-standing rearward displacement of the copings is noted at the toe end over a length of 1.1m up to 110mm **(photo 34)**.

U/S, C/e:- open joints are typically noted between 20 and 120mm with deep loss at the areas of root ingress noted up to 420mm. The loss is typically located within 1m of the copings and covers an approx total area of 3.5m^2 **(photos 35 & 36)**. Areas of long-standing surface erosion of the stonework expose the granular materials of the limestone.

3no areas of large root ingress are noted along the rake line of the wingwall:-

1st located 3.8m from the toe end. The root ingress does not cause any significant defects at this time **(photo 37)**.

2nd located 1.9m from the top of wall. The root ingress has resulted in lifting of the stonework to 80mm over a length of 2.5m through to the 3rd area of root ingress located 1.3m from the top of wall; associated lifting of the copings is also noted up to 50mm at this point. The stonework was found secure to hammer at this time **(photos 38 to 42)**.

D/S, C/e:- open joints are typically noted between 20 and 75mm with a max loss noted up to 220mm. The loss covers an approx total area of 6m^2 **(photos 43 & 44)**. Areas of long-standing surface erosion of the stonework expose the granular materials of the limestone. Odd areas of long-standing moderate root ingress are found within the upper wingwall. The root ingress results in slight lifting of the associated stones **(photo 45)**. 2no areas of large root ingress are located at the toe area which results in associated pushing stonework up to 15mm **(photo 46)**. The stonework remained secure at time of the examination. Areas of bed fracturing were noted below the copings up to 15mm.

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Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
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Examiner Comments on Structure condition

PARAPETS & PILASTERS

For the purpose of the examination the parapets were marked with chalk at 1m intervals from the U/S quoins. Displacement and fracturing within the parapets are currently monitored under a 6 monthly frequent examination programme

L/e:- internal road face: a long-standing displaced step fracture rises from G/L, starting 380mm from the U/S quoin. The fracture rises full height of the parapet, terminating at 900mm from the U/S quoin. The fracture is found open up to 28mm with forward displacement noted up to 55mm. Fracturing is also noted within the coping perp joint up to 65mm. The defect is caused by internal root ingress noted through the parapet rising from G/L and extending out through the coping perp joint **(photos 47 & 48)**.

A series of joint fractures is noted to the D/S quoin through the top 3no course. The fractures are found open up to 3mm **(photo 49)**.

Widespread joint loss is noted within the parapet from the U/S quoin over a length of 3.8m. The loss is typically noted between 30 and 50mm with odd open joints noted up to 220mm at the fracture line and odd joints within this area. Isolated joint loss is noted within the remaining parapet area. Total joint loss within the parapet covers an approx area of $3m^2$. The stonework was typically found secure to hammer with odd stones showing slight movement under hammer **(photos 50 to 52)**.

Root ingress is also located below the copings at 2.6m from the U/S quoin which results in the lifting of copings up to 65mm, with inward displacement of the copings noted up to 60mm at this point **(photos 53 & 54)**.

Long-standing root ingress is also noted within all the coping perp joints over a length of 2.6m from the U/S quoin. Areas of root ingress are also noted along the coping bed which shows evidence of daylight being visible through the coping bed joint below the 1st 2no copings from the U/S quoin **(photo 55 & 56)**.

The copings also show surface erosion with 1no stone spalled up to 80mm around 5m **(photo 57)**. Individual perp joints show loss up to 100mm.

External face: long-standing step fracturing is located at the U/S quoin opposite the displacement and fracturing noted within the internal face of parapet. The fracture rises full height of the parapet and extends to approx 980mm from the quoin. The fracture is typically found open to 16mm with a max of 40mm including joint noted at the perp joint of the quoin stone at the top course of the parapet. Associated joint loss was noted up to 240mm along the line of fracture **(photos 58 to 61)**. Odd joints within the remaining parapet area were found fractured up to 2mm **(photo 62)**.

A number of joints are found lifting and cracking with joint loss typically noted between 20 and 50mm with a max loss up to 240mm covering an approx total area of $1m^2$. Areas of long-standing surface erosion of the stonework expose the granular materials of the limestone.

Individual perp joints within the stringcourse show loss up to a depth of 80mm **(photo 63)**. Individual perp joints are also found fractured up to 3mm **(photo 64)**.

C/e:- internal road face: a long-standing displaced step fracture rises from G/L starting 760mm from the U/S quoin. The fracture rises full height of the parapet terminating at 1m from the U/S quoin. The fracture is found open up to 55mm with forward displacement noted up to 20mm. Fracturing is also noted within the coping perp joint up to 75mm. The defect is caused by internal root ingress noted through the parapet rising from G/L and extending out through the coping perp joint **(photos 65 to 67)**. The coping at the quoin end shows fracturing along the coping open to 65mm **(photo 68 & 69)**.

A 2nd long-standing step fracture is located at the quoin rising through 2no courses, open to 8mm **(photo 70)**.

Widespread lifting and cracking mortar with associated joint loss is noted within the parapet from the U/S quoin over a length of 2m. The loss is typically noted between 40 and 100mm with odd open joints noted up to 180mm at the fracture lines and odd joints within this area. Individual joints are found lifting and cracking with isolated joint loss within the remaining parapet area. Total joint loss within the parapet covers an approx area of $2m^2$ **(photos 71 to 73)**. The stonework is typically found secure to hammer with odd stones showing slight movement under hammer.

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Examiner Comments on Structure condition

PARAPETS & PILASTERS Cont'd

The copings also show surface erosion with individual copings spalled up to 55mm, and individual copings are found grain fractured up to 4mm **(photos 74 & 75)**. Individual perp joints within the copings show loss to full depth with odd areas of mortar loss noted along the coping bed up to 85mm and deeper loss to full width of the coping at the U/S quoin of the parapet, which results in slight movement under hammer **(photo 76)**.

External face: stonework within 2.2m of the U/S quoin shows moderate movement under hammer with evidence of individual stones showing forward displacement up to 10mm. A 10mm stepped joint fracture was noted within this area at the time of the previous detailed examination. Mortar loss has now encompassed the fracture. The defects noted are located opposite fracturing noted within the internal face of the parapet **(photos 77 to 79)**.

Open joints are typically noted between 20 and 60mm within the parapet with deeper loss noted at the U/S quoin area up to 180mm. The loss covers an approx total area of $2m^2$ **(photo 80)**.

Individual perp joints within the stringcourse show loss up to a depth of 175mm **(photo 81)**. Individual stringcourse stones are found grain fractured up to 1mm. Light weathering action is noted within the stonework.

POINTING

As noted.

WATERPROOFING

N/E:- efflorescence staining within the soffit may suggest past water seepage.

HANDRAILS AND FENCING

U/S, L/e:- hedgerow to the approach. No fence line visible **(photo 82)**.

D/S, L/e:- hedgerow to the approach. No fence line visible **(photo 83)**.

U/S, C/e:- rail end post visible through the hedgerow. No evidence of staining wires visible **(photo 84)**.

D/S, C/e:- hedgerow to the approach. No fence line visible **(photo 85)**.

TRACK/ ROAD CONDITION

L/e:- a [redacted] is located to the L/e of the structure; waste materials, soil etc have been placed in front of the structure in the past. The presence of Himalayan Balsam was noted throughout these waste materials. The examiner was able to gain access around the rear of the waste materials/ Himalayan Balsam at the time of the examination.

Please note: if the Himalayan Balsam were to extend through to the face of the structure, future access would be affected and the examiner considers that removal of the waste materials containing the outbreak of Himalayan Balsam should be undertaken in order to facilitate future examinations of the structure **(photo 86)**.

C/e:- buildings [redacted] are located in front of the structure. The buildings and stored materials below the structure restrict the examination process.

The hog-backed roadway over the structure is typically found in good order, with light surface wear and tear of the asphalt.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Examiner Comments on Structure condition

FOUNDATIONS

N/E:- no visible defects were noted above G/L on the examination date.

VEGETATION

Vegetation was removed from the structure as part of the 2017/18 vegetation removal programme.

Please note: the vegetation at the structure is denoted as poor within the report due to large root ingress which remain within the wingwalls and parapets, resulting in displacement of the associated stonework. The root ingress within these elements requires removal along with reinstatement of affected stonework. See wingwalls and parapets for details.

MILEAGE/ BRIDGE NO

New structure I.D. installed at the time of examination

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Photographs of structure

Photograph no 1: Country elevation
[redacted] buildings located in front of the structure

Photograph no 2: Country elevation is obscured by buildings

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 3: U/S abutment

Photograph no 4: D/S abutment

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 5: general view of the soffit

Photograph no 6: U/S, L/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 7: D/S, L/e wingwall

Photograph no 8: U/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 9: D/S, C/e wingwall

Photograph no 10: external face of the L/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 11: internal face of the L/e parapet

Photograph no 12: external face of the C/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 13: internal face of the C/e parapet

Photograph no 14: general view over the structure from the U/S

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 15: general view over the structure from the D/S

Photograph no 16: poor access encountered on the L/e of the structure
Please note: the vegetation could not be cleared back from the face of structure any further due to concerns of disturbing the Himalayan Balsam encountered on site.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 17: example of surface erosion within the L/e voussoirs

Photograph no 18: example of joint loss noted to individual perp joints within L/e voussoirs

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 19: example of joint loss noted along the extrados joint on the L/e up to 50mm

Photograph no 20: example of surface erosion within the C/e voussoirs

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 21: calcite deposits to rear of the C/e voussoirs may cover an underlying fracture.

Photograph no 22: example of spalling noted within the soffit.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 23: example of calcite/ efflorescence staining within the soffit

Photograph no 24: example of joint loss within the L/e spandrel noted up to 50mm U/S of the spandrel shown

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 25: evidence of erosion within the stonework to the L/e spandrel

Photograph no 26: example of joint loss within the C/e spandrel
U/S of the spandrel shown

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 27: series of fractures noted within the C/e quoin stones of the D/S abutment

Photograph no 28: storage containers restrict access to the abutments.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 29: long-standing loss of copings along the U/S, L/e wingwall

Photograph no 30: root ingress within the U/S, L/e wingwall displaces cut stones and copings.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 31: displacement noted up to 88mm

Photograph no 32: remaining copings to upper section of the U/S, L/e wingwall bed fractured to 20mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 33: example of joint loss within the D/S, L/e wingwall

Photograph no 34: displacement of copings at the toe end of the D/S, L/e wingwall noted up to 110mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 35: example of joint loss within 1m of the copings noted along the U/S, C/e wingwall

Photograph no 36: example of joint loss within 1m of the copings noted along the U/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 37: root ingress located approx 3.8m from the toe end of the U/S, C/e wingwall

Photograph no 38: root ingress located approx 1.9m from the top of the U/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 39: lifting stones noted up to 80mm at the root ingress at 1.9m

Photograph no 40: joint loss at the area of root ingress noted up to 420mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

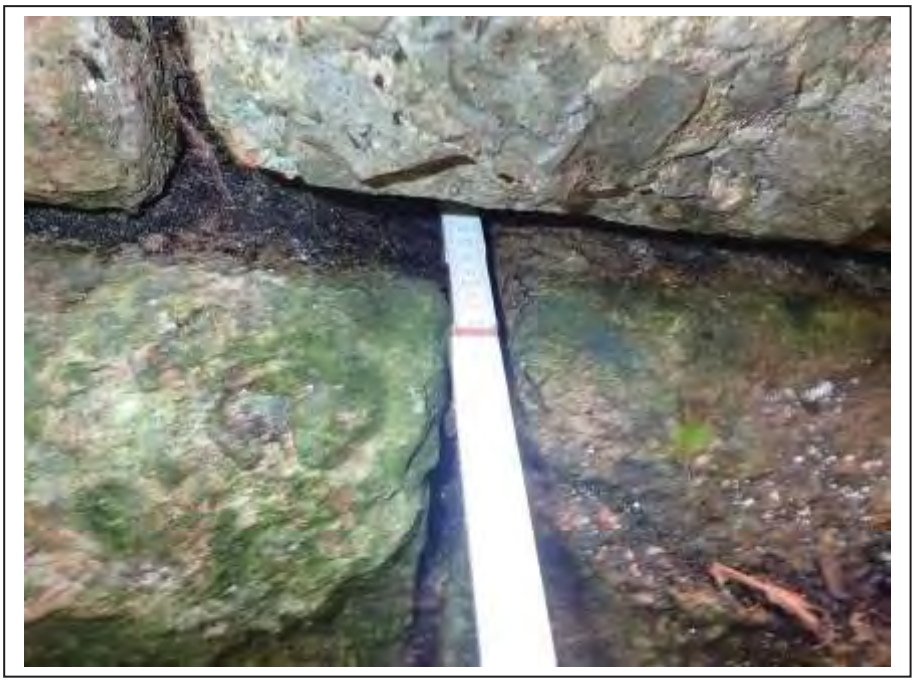
Photograph no 41: lifting of copings at the root ingress noted up to 50mm

Photograph no 42: root ingress located approx 1.3m from the top of the U/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 43: example of joint loss within the D/S, C/e wingwall



Photograph no 44: joint loss within the D/S, C/e wingwall noted up to 220mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 45: example of root ingress within the upper sections of the D/S, C/e wingwall

Photograph no 46: example of root ingress towards the toe end of the D/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 47: long-standing fracturing and displacement at the U/S quoin of the L/e parapet

Photograph no 48: long-standing fracturing and displacement at the U/S quoin of the L/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 49: series of fractures noted at the D/S quoin of the L/e parapet

Photograph no 50: widespread joint loss within the L/e parapet noted from the U/S quoin through to 3.8m

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 51: example of odd areas of joint loss within the remaining area of the L/e parapet

Photograph no 52: joint loss within the L/e parapet noted up to 220mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 53: root ingress below the L/e copings approx 2.6m from the U/S quoin

Photograph no 54: root ingress at 2.6m results in inward displacement of the copings up to 60mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 55: long-standing root ingress noted within the perp joints and along the coping bed of the L/e parapet

Photograph no 56: daylight visible through the copings along the L/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 57: a coping upon the L/e parapet is spalled up to 80mm.

Photograph no 58: step fracture to the external face of the L/e parapet at the U/S quoin

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 59: step fracture is typically open to 16mm

Photograph no 60: step fracture opens to a max of 40mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 61: joint loss at the fracture line noted up to 240mm

Photograph no 62: example of odd fractures noted within the external face of the L/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 63: odd joints within the L/e stringcourse show loss up to 80mm

Photograph no 64: odd joints within the L/e stringcourse fractured up to 3mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 65: long-standing fracture and displacement noted at the U/S quoin of the C/e parapet Fractures/ displacement are caused by root ingress.

Photograph no 66: long-standing fracture and displacement noted at the U/S quoin of the C/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 67: root ingress at the coping joint results in fracture open to 75mm

Photograph no 68: fracture within the coping at the U/S quoin of the C/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 69: fracture within the coping noted to 65mm

Photograph no 70: fracture at the U/S quoin of the C/e parapet open to 8mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 71: example of joint loss within the C/e parapet over a length of 2m from the U/S quoin

Photograph no 72: odd areas of joint loss within the remaining area of the C/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 73: joint loss within the internal face of the C/e parapet noted up to 180mm

Photograph no 74: example of spalled copings noted along the C/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 75: example of grain fractures within the C/e parapet copings

Photograph no 76: deep joint loss noted to full width of the coping at the U/S quoin of the C/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 77: example of loose stonework located within 2.2m of the U/S quoin of the C/e parapet External face shown

Photograph no 78: example of loose stonework located within 2.2m of the U/S quoin of the C/e parapet External face shown

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 79: individual stones are found pushing within the loose stonework.

Photograph no 80: joint loss within the external face of the C/e parapet noted up to 180mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 81: individual perp joints within the C/e stringcourse show loss up to 175mm

Photograph no 82: no fence line visible on the U/S, L/e

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 83: no fence line visible on the D/S, L/e

Photograph no 84: end post visible but no straining wire noted on the U/S, C/e

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	12/09/17
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 85: no fence line visible on the D/S, C/e

Photograph no 86: Himalayan Balsam located upon soil/ debris in front of the structure on the L/e
Requires removal in order to ensure access at future examinations

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 30/08/16
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

General view of structure: London elevation

Examiner comments

There is no evidence of any repair works having been undertaken within the structure since the previous visual examination dated 27/08/15.

A number of defects are found within the structure. All defects are considered long-standing unless noted.

See pages 2 & 3 for details.

A **Visual Examination** of this structure has been carried out and any deterioration in condition or development of defects or other factors, which might place at risk the public at large, is recorded in the Examiner's Comments section of this document.

Examiner: [redacted]

Date: 28/09/2016

Signed: [redacted]

Access Hazards:

Access permission is required through local business on the L/e. C/e used by [redacted]; the examiner has been advised that the best access to the C/e of the structure was [redacted]. Wells has been denoted as the L/e (ESE).

Recommendations:

Significant movement noted to CE parapet fractures; remove all vegetation to both parapets and re-visit in 6 months - P1 £800.

Signed by Examining Engineer: [redacted]

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	30/08/16
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Examiner Comments on Structure condition

ACCESS RESTRICTIONS

L/e:- partially in-filled at the face of the structure. The old track bed is used by a local business. Storage of salvaged materials with some building waste materials (soil/ brick and stone) is stored in close proximity to the structure. Vegetation growth upon/ around the stored materials has worsened since the previous visual examination and now fully encompasses the L/e elevation.

The examiner does not consider that the stored materials have any structural impact upon the structure but clearance of the materials in order to restrict vegetation growth would be beneficial for future examinations. The examiner considers that some consultation with the land owners would have to be undertaken in order to facilitate the removal of the materials **(photos 5 & 6)**.

C/e:- steel frame buildings used by a [redacted] are installed in front of the structure. The steel buildings restrict full visual inspection of the structure.

FACE RING VOUSSOIRS

C/e:- limited access from G/L; where visible the voussoirs appeared in good order with some odd open joints noted up to approx 20mm **(photo 8)**.

SOFFIT

Calcite deposits located within 400mm to the rear of voussoirs may cover underlying fine H/L longitudinal fractures **(photos 9 & 10)**. Odd areas of long-standing spalling are noted at the joint lines with associated joint loss up to approx 50mm. Odd stones are found spalled up to 20mm **(photos 11 & 12)**. Long-standing carbon deposits with areas of lichen and efflorescence staining are noted within the soffit.

ABUTMENTS

N/E:- steel containers and stored item in front of the abutments restrict access.

PARAPETS

L/e:- the internal face of the parapet shows long-standing loose and displaced stonework to 45mm located adjacent to the U/S quoin. Associated step fracturing to full height of the parapet is noted open to 30mm within the parapet and 70mm at the coping perp joint. The defects at this area are caused by root ingress within the stonework **(photos 13 to 15)**. Associated fracturing was also noted within the external face of the parapet open to 20mm at the time of previous examinations. Dense vegetation restricts visual confirmation of the defect.

Long-standing lifting of the copings to the L/e parapet is found to 25mm with displacement at the perp joint to 30mm. The defects are due to root ingress around 2.7m from the U/S quoin. Individual stones at this area are found to move on hammer **(photo 16)**.

A number of joints within the parapet are found lifting and cracking, with odd stones found to move on hammer within the remaining parapet area due to poor underlying mortar and mortar loss **(photo 17)**.

C/e:- internal face: a long-standing step fracture is located 1.1m from the U/S quoin within the internal face of the parapet. The fracture rises full height open to 50mm (previously 40mm). Associated displacement is noted at the coping line to 70mm (previously 60mm). Loose stonework is noted at the fracturing. The defects are caused by root ingress **(photos 18 to 20)**.

Odd stones are found to move on hammer within the remaining parapet area due to poor underlying mortar and areas of joint loss noted up to 100mm **(photo 21)**.

A long-standing step fracture rising full height of the external face of the C/e parapet from fracturing within the spandrel has been noted at previous examinations. The fracture was found approx 2m from the U/S quoin, open to 15mm with joint. Associated pushing of the stonework was also noted at the fracture line up to approx 15mm. Vegetation restricts visual confirmation of the defect **(photo 22)**.

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 30/08/16
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Examiner Comments on Structure condition

WINGWALLS

U/S, C/e:- stored [redacted] equipment in front of the wingwall with areas of moderate to dense vegetation and multiple sapling growth within the wingwall, restricts the examination. Evidence of long-standing mortar loss was noted through the vegetation. The previous detailed examination noted the loss up to 50mm deep and covering an approx total area of $2m^2$ **(photos 23 & 24)**.

D/S, C/e:- odd items are stored in front of the wall and restrict full access. Areas of moderate vegetation are noted with odd saplings noted within the joint work. Odd areas of mortar loss were noted up to 75mm covering an approx total area of $2m^2$ at the time of the previous detailed examination; no evidence was noted to suggest any significant further loss **(photos 25 & 26)**.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	30/08/16
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 1: Country elevation

Photograph no 2: Country elevation

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 30/08/16
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

Photograph no 3: general view of the soffit

Photograph no 4: general view over the structure from the U/S

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	30/08/16
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 5: dense vegetation restricts access to the L/e elevation.

Photograph no 6: dense vegetation restricts access to the L/e elevation.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	30/08/16
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 7: dense vegetation restricts access to the L/e elevation. View looking down from the L/e parapet

Photograph no 8: general condition of the C/e voussoirs

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 30/08/16
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

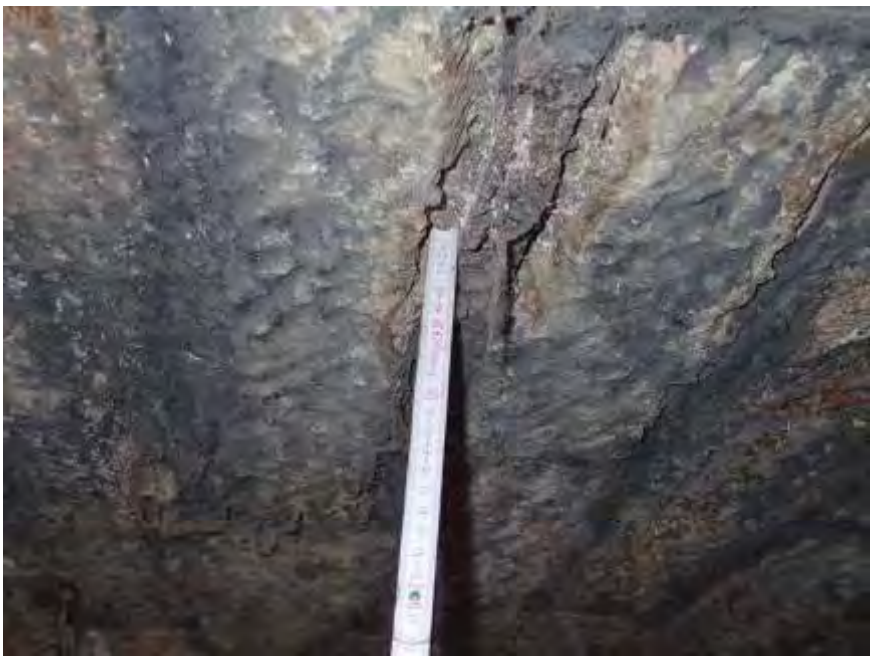
Photograph no 9: calcite deposits noted at the rear of the L/e voussoirs may cover underling fracture.

Photograph no 10: calcite deposits noted at the rear of the C/e voussoirs may cover underling fracture.

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 30/08/16
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

Photograph no 11: odd spalled stones noted within the soffit



Photograph no 12: spalling at joint lines noted up to approx 50mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	30/08/16
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 13: long-standing fracture and displacement noted towards the U/S quoin of the L/e parapet

Photograph no 14: forward displacement noted up to 45mm at fracture line

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 30/08/16
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

Photograph no 15: displacement at the coping noted up to 70mm

Photograph no 16: displaced copings along the L/e parapet located approx 2.7m from the U/S quoin

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	30/08/16
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 17: lifting and cracking mortar with associated open joints within the L/e parapet

Photograph no 18: long-standing fracture noted towards the U/S quoin of the C/e parapet

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 30/08/16
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

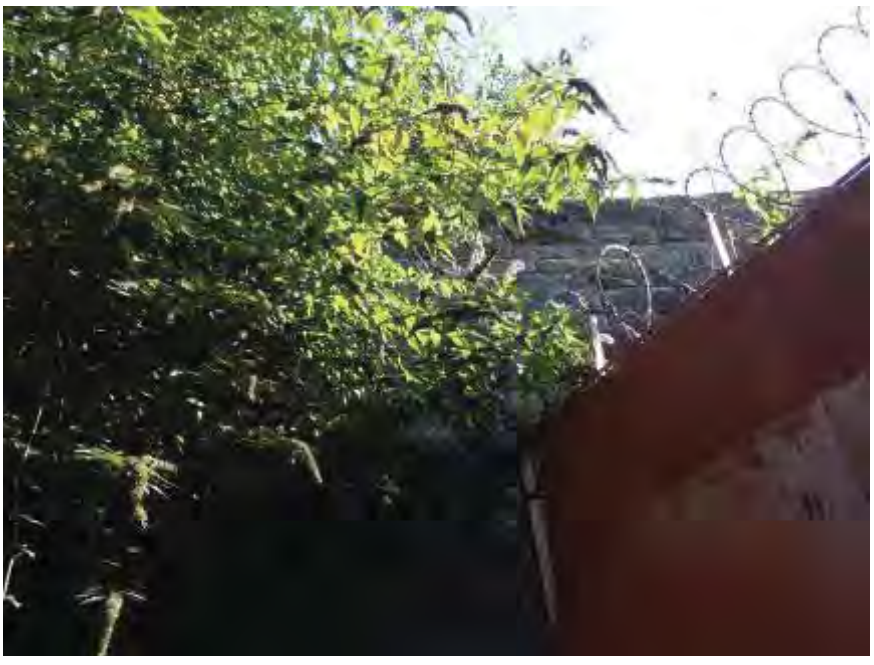
Photograph no 19: fracture open to 50mm within the C/e parapet

Photograph no 20: displacement at the coping perp noted to 70mm

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 30/08/16
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

Photograph no 21: odd stones found to move under hammer within the C/e parapet



Photograph no 22: long-standing fracture within the external face of the C/e parapet obscured by vegetation

ELR: CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:** 30/08/16
Route: Cheddar Valley Branch			**OS ref:** ST 528 464
Name: Horse Batch Bridge, Near Wells			**Type:** Over bridge

Photographs of structure

Photograph no 23: vegetation and stored items at the U/S, C/e wingwall restrict the examination.

Photograph no 24: sapling growth noted within the U/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	30/08/16
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, Near Wells			**Type:**	Over bridge

Photographs of structure

Photograph no 25: general view of the D/S, C/e wingwall

Photograph no 26: example of mortar loss noted within the D/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	27/08/15
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

General view of structure: London elevation (ESE)

Examiner comments

There was no evidence of any repair works having been carried out within the structure since the previous visual examination dated 22/08/14.

A number of defects are found within the structure. All defects are considered long-standing unless noted.

See page 2 for details.

A **Visual Examination** of this structure has been carried out and any deterioration in condition or development of defects or other factors, which might place at risk the public at large, is recorded in the Examiner's Comments section of this document.

Examiner: [redacted]

Signed: [redacted]

Date: 26/09/2015

Access Hazards:

Access permission is required through local business on the L/e. C/e used by [redacted]: the examiner has been advised that the best access to the C/e of the structure was [redacted]. Wells has been denoted as the L/e (ESE).

Recommendations:

(broadly as previous):

Rebuild UL parapet at quoin - P1 £3.5k.

Remove vegetation to fractured CE parapet and well established sapling growth to wingwalls and make masonry good locally - P2 £7k.

Signed by Examining Engineer: [redacted]

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	27/08/15
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Examiner Comments on Structure condition

ACCESS RESTRICTIONS

L/e:- partially in-filled at the face of the structure. The old track bed is used by a local business. Storage of salvaged materials with some building waste materials (soil/ brick and stone) stored in close proximity to the structure. Dense vegetation upon the stored materials restricted access at the time of the examination. The examiner does not consider that the materials have any structural impact but clearance of the material would be beneficial for future examinations **(photo 12)**.

C/e:- steel frame buildings of a [redacted] installed in front of the structure restrict any visual inspection. No phone contact was available on the examination date, and no access was gained to the internal structure or C/e of the structure.

PARAPETS

L/e:- the internal face of the parapet shows long-standing loose and displaced stonework to 45mm located adjacent to the U/S quoin. Associated step fracturing to full height of the parapet is noted open to 30mm. The defects at this area are caused by root ingress to the rear of the stonework. Associated fracturing is also noted to the external face of the parapet at the quoin area, open to 20mm **(photos 3 & 4)**.

Long-standing lifting of the copings is found to the L/e parapet to 25mm with displacement at the perp joint to 30mm. The defects are due to root ingress around 2.7m from the U/S quoin. Individual stones at this area are found to move on hammer **(photo 5)**.

A number of joints within the parapet are found lifting and cracking, with odd stones found to move on hammer within the remaining parapet area due to poor underlying mortar and mortar loss **(photo 6)**.

C/e:- a long-standing step fracture located 1.1m from the U/S quoin within the internal face of the parapet rises full height, open to 40mm. Associated displacement to 60mm is noted at the coping line. Loose stonework is also noted at the fracturing. The defects are caused by root ingress **(photo 7)**.

Odd stones are found to move on hammer within the remaining parapet area due to poor underlying mortar and areas of joint loss noted up to 100mm **(photo 8)**.

WINGWALLS

U/S, L/e:- not accessed at past examination due to vegetation. Long-standing displacement and missing copings were noted along the wingwall over an approx length of 3m from the toe end. Individual cut stones at the rake line also show forward displacement **(photos 9 & 10)**. Large sapling growth at mid length may assist with the displacement within the copings **(photo 11)**.

D/S, L/e:- dense vegetation covers the wingwall.

VEGETATION

Areas of moderate to dense vegetation are found upon the structure.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	27/08/15
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 1: Country elevation

Photograph no 2: general view over the structure

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	27/08/15
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 3: long-standing fractured and displaced stonework to internal face of the L/e parapet located towards the U/S quoin

Photograph no 4: fracturing noted towards the U/S quoin of the L/e parapet within the external face

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	27/08/15
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 5: lifting copings noted along the L/e parapet due to root ingress approx 2.7m from the U/S quoin

Photograph no 6: lifting and cracking mortar content with odd stones found to move on hammer within the L/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	27/08/15
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 7: long-standing step fracture towards the U/S quoin area of the C/e parapet

Photograph no 8: odd areas of mortar loss with odd stones found to move on hammer within the C/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	27/08/15
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 9: long-standing loss of copings to the U/S, L/e wingwall

Photograph no 10: some displaced copings at cut stones noted along the U/S, L/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	27/08/15
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 11: sapling growth noted within the U/S, L/e wingwall

Photograph no 12: vegetation growth located in front of the L/e elevation

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

General view of structure: London elevation

Examiner comments

There was no evidence of any repair works having been undertaken within the structure since the previous visual examination.

A number of defects are found within the structure. All defects are considered long-standing unless noted. See page 2 for details.

A **Visual Examination** of this structure has been carried out and any deterioration in condition or development of defects or other factors, which might place at risk the public at large, is recorded in the Examiner's Comments section of this document.

Examiner: [redacted]

Signed: [redacted]

Date: 20/09/2014

Access Hazards:

Access permission is required through local business on the L/e. C/e used by [redacted] The examiner was advised that the best access to the C/e of the structure was [redacted] Wells has been denoted as the L/e.

Recommendations:

Rebuild UL parapet at quoin - P1 £3.5k.

Remove vegetation to fractured CE parapet and wingwalls and make good masonry locally - P2 £7k.

Signed by Examining Engineer: [redacted]

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Examiner Comments on Structure condition

FACE RING VOUSSOIRS

L/e:- some deep joint loss is noted throughout the extrados joint to approx 50mm. Areas of dense vegetation partially restrict the examination **(photo 5)**.

C/e:- limited access from G/L; the visible areas appeared in good order with some odd open joints noted to approx 10mm **(photo 2)**.

SOFFIT

Calcite deposits located between 300 and 400mm to the rear of the C/e voussoirs may cover an underlying fine H/L longitudinal fracture **(photo 6)**. Evidence is noted of odd areas of spalling at the joint lines with associated joint loss up to approx 30mm **(photos 7 & 8)**. Long-standing carbon deposits with areas of lichen and efflorescence staining are noted within the soffit.

PARAPETS

L/e:- the internal face of the parapet shows long-standing loose and displaced stonework to 45mm located adjacent to the U/S quoin. Associated step fracturing to full height of the parapet is noted open to 30mm (change from 25mm). The defects at this area are caused by root ingress to the rear of the stonework. Associated fracturing is also noted to the external face of the parapet at the quoin area, open to 20mm **(photos 9 & 10)**.

Long-standing lifting of the copings is found to the L/e parapet to 25mm, with displacement at the perp joint to 30mm. The defects are due to root ingress around 2.7m from the U/S quoin. Individual stones at this area are found to move on hammer **(photo 11)**.

A number of joints within the parapet are found lifting and cracking, with odd stones found to move on hammer within the remaining parapet area due to poor underlying mortar and mortar loss **(photo 12)**.

C/e:- a long-standing step fracture is located 1.1m from the U/S quoin within the internal face of the parapet. The fracture rises full height, open to 40mm (change from 30mm). Associated displacement to 60mm is noted at the coping line. Loose stonework is also noted at the fracturing. The defects are caused by root ingress **(photo 13)**.

A step fracture to the full height of the external face of the C/e parapet, rising out of fracturing within the spandrel is noted approx 2m from the U/S quoin, is found open to 15mm with joint associated pushing of the stonework noted around the fracturing up to approx 15mm. Associated joint loss is noted to the visible area of the parapet at this point **(photo 14)**.

Odd stones are found to move on hammer within the remaining parapet area due to poor underlying mortar and areas of joint loss noted up to 100mm **(photo 15)**.

ABUTMENTS

N/E:- Steel containers and stored items are found in front of the abutments **(photo 16)**.

WINGWALLS

U/S, L/e:- not visible due to dense vegetation coverage of the wingwall **(photo 17)**

D/S, L/e:- not visible due to dense vegetation coverage of the wingwall **(photo 18)**

U/S, C/e:- stored [redacted] is found in front of the wingwall. Areas of moderate to dense vegetation and multiple sapling growth within the wingwall restrict the examination **(photo 19)**.

D/S, C/e:- stored items in front of the wingwall restrict access to the wall. The general condition of the visible wingwall appeared in good order, with some odd open joints and light scaling of the stonework noted. Moderate to dense vegetation with odd sapling growth are noted along the rake line **(photo 20)**.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Examiner Comments on Structure condition

TRACK/ ROAD CONDITION

L/e:- partially in-filled at the face of the structure. The old track bed is used by a local business and storage of salvaged materials with some building waste materials (soil/ brick and stone) are stored in close proximity to the structure. The materials do not have an impact on the structure at this time. Foot access can be gained around/ over the materials **(photo 21)**.

C/e:- steel frame buildings of a [redacted] installed in front of the structure restrict any visual inspection and access is required to carry out the annual examinations (see access note on page 1).

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 1: Country elevation
The structure is covered from view by installed buildings.

Photograph no 2: Country elevation: view at the rear of the installed buildings
Voussoirs appear in good order.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 3: general view of the soffit

Photograph no 4: general view over the structure

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 5: vegetation restricts full inspection of the L/e voussoirs.
Evidence of long-standing joint loss noted at the extrados joint

Photograph no 6: calcite deposits to the rear of the C/e voussoirs may cover an underlying fracture.

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 7: example of odd open joints within the soffit

Photograph no 8: example of spalling along the joint lines within the soffit

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 9: long-standing fractured and displaced stonework to internal face of the L/e parapet located towards the U/S quoin

Photograph no 10: fracturing noted towards the U/S quoin of the L/e parapet within the external face

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 11: lifting copings noted along the L/e parapet due to root ingress approx 2.7m from the U/S quoin

Photograph no 12: lifting and cracking mortar content with odd stones found to move on hammer within the L/e parapet

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 13: long-standing step fracture towards the U/S quoin area of the C/e parapet

Photograph no 14: long-standing step fracture visible to the external face of the C/e parapet on the U/S
Associated pushing stonework noted to approx 15mm

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 15: odd areas of mortar loss with odd stones found to move on hammer within the C/e parapet

Photograph no 16: no access to the abutments

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 17: U/S, L/e wingwall covered by vegetation

Photograph no 18: D/S, L/e wingwall covered by vegetation

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 19: restricted access to the U/S, C/e wingwall
Note multiple sapling growth to the face of wall.

Photograph no 20: vegetation and sapling growth to the face of the D/S, C/e wingwall

ELR:	CVB	**Structure No:**	**Mileage:** 15m 33ch	**Examination date:**	22/08/14
Route:	Cheddar Valley Branch			**OS ref:**	ST 528 464
Name:	Horse Batch Bridge, near Wells			**Type:**	Overbridge

Photographs of structure

Photograph no 21: structure located behind stored materials on the L/e.

[redacted]

From: [redacted]
Sent: 22 May 2019 09:49
To: [redacted]
Subject: Minor Works authorisation

[redacted]

Could you authorise these MWRs please?

[redacted] CVB 15m 33ch\CVB_15m33ch_20190522_auth.pdf [redacted]

Thanks

[redacted]

[redacted]
Historical Railways Estate (on behalf of Department for Transport)
Highways England | 37 Tanner Row | York | North Yorkshire | YO1 6WP
General Office: +44 (0) 1904 621924
[redacted]
Web: http://www.highwaysengland.co.uk

AMCO rail

[redacted]

Historical Railways Estate
Highways England
37 Tanner Row
York
YO1 6WP

Date: 15th May 2019

CVB/15m 33ch – Tender Submission

AMCO are pleased to submit the following price for the proposed works to structure CVB/15m 33ch.

It is AMCO's understanding that the work scope is to remove the tree root ingress from the parapets and wingwalls and treat to prevent regrowth. Repoint masonry as required. Install timber post and rail fencing to all 4 corners

The fixed price for undertaking these works is £15,864.88

If you have any queries or require further information please do not hesitate to contact me.

Yours Faithfully

[redacted]

Amco Rail
Amalgamated Construction Ltd
Whitley Road
Barugh
Barnsley
South Yorkshire
S75 1HT
T: +44 (0)1226 204 813
F: +44 (0)1226 205502
E: rail@amco.co.uk
www.amco-construction.co.uk

Registered Office
Yew Trees
Main Street North
Alverton
West Yorkshire
LS25 5AA
Registered in England Number 995892

Historical Railways Estate - Minor Works Request

Highways England – Historical Railways Estate (HRE) invites you to tender under the Historical Railways Estate Works Framework Contract to provide the services described below. The Form of Contract is the NEC Engineering and Construction Short Contract.

1. Project Details

To: **Amco**

Date issued: **28 November 2018**

Description of the Site

Route: **Cheddar Valley Branch**

Structure: **CVB/15m 33ch** **15** Miles **33** Chains ID: 1483

OS Ref: **ST528464** **Horse-Batch Bridge, near Wells**

Works Description:

Remove root/tree ingress from parapets and wingwalls. Treat to prevent regrowth.

Repair/repoint masonry locally as required due to displacement (ensuring that masonry follows original alignment).

Localised repointing where joint loss exceeds 30mm.

Install 1.5m high timber post and 4 rail fencing (5m long) to all 4 corners

Works to be preceeded by consultation/survey from qualified ecologist. All ecological recommendations to be adhered to, including any follow-up suveys, constraints to timing or methodology of works, licensing, site briefings, etc.

[redacted]

Note the presence of Himalayan Balsam adjacent to the structure.

Quotation Required By: ################ Work Required By: **28 November 2019**

Name: [redacted] Signed ..... [redacted]

Tele: 01904 524786 Fax: 01904 523661 Date: **28 November 2018**

2. Contractor's Quotation

Total of the prices: £15,864.88 Contractor's Reference HREMW16281

Proposed Welfare: Welfare Van

Proposed Supervision: [redacted]

Contractor to propose the following programme based on the assumption award will be made within two weeks of quotation receipt.

Start Date T.B.C. *Completion Date* T.B.C.

Named Suppliers N/A

Name [redacted] Signed [redacted] Date 13-05-19

3. Authorisations

Will you please note these proposed works. I would be grateful if you would approve the expenditure. I will assume that a signature for the expenditure also confirms that the structure is not to be disposed of in the near future.

Technical Authorisation	
Signature:	[redacted]
Print Name:	
Date:	

Financial Authorisation	Contractual Authorisation
Signature: [redacted]	Signature: .....
Print Name:	Print Name: .....
Date:	Date: .....

4. Site Information

Access:

Balvac access hazards -road traffic - tripping hazard to London track bed - access to country end via field - Stored materials beneath bridge

[redacted]

Hazards

Hazard	Note
Road Traffic	
Hazardous Materials	himalayan balsam

Services

Service	Size	Location
Electricity		live electrical equipment noted in proximity of bridge 12/09/17

Environmental

No data available

Contract Data

1. Part one - data to be provided by the *Employer*

- The works are described within Section 1 of Minor Works Request Form.
- The site is described within Section 1 of Minor Works Request Form.
- The starting date is described within Section 2 of Minor Works Request Form.
- The completion date is described within Section 2 of Minor Works Request Form.
- The defect correction period is 4 weeks except that
  The defect correction period for Plant is **N/A**.

- The delay damages are nil per day.
- The retention is 0 %.

Insurance Cover Cl. 82 ECSC:

The minimum amount of cover for the third insurance stated in the Insurance Table is **£5,000,000 (five million pounds)** any one occurrence, without limit to the number of occurrences (except for claims arising out of pollution or contamination, where the minimum amount of cover applies in the aggregate in any one annual period of insurance).

The minimum amount of cover for the fourth insurance stated in the Insurance Table is **£5,000,000 (five million pounds)** any one occurrence or as required by statute whichever is the higher, without limit on number of occurrences.

Either: ~~The Contractor's liability for loss of or damage to the Employer's property is unlimited.~~ (default position) or The Contractor is not liable to the Employer for loss of or damage to the Employer's property in excess of **£10,000,000 (ten million pounds)** for any one event. (if agreed with the policy owner)
The minimum amount of cover for the third insurance stated in the Insurance Table is **£5,000,000 (five million pounds)** for any one event.
The minimum amount of cover for the fourth insurance stated in the Insurance Table is **£5,000,000 (five million pounds)** for any one event. Unless stated otherwise in the additional Contract Data for the Package Order.

- The additional conditions of contract are the Z clauses in Appendix A to the framework Contract Data numbered Z1 to Z22 inclusive, Z4A and Z23A plus the following Z Clauses listed in Appendix C Z23, Z24, Z25, Z26, Z27, Z28, ~~Z31~~, Z36, ~~Z42~~, Z49, Z50, Z51, Z52, Z53 and Z59.

Optional Z clauses:

Z29 Extended Liability period for Plant **N/A**.
Z30 Network Rail Possessions **N/A**.

- The entries for the Price List are given below:

Lump Sum

- The Additional Works Information listed in the Minor Works Request Annex 1 below.

The Additional Works Information includes:

Description of the Works	See Section 1 of the Minor Works Request Form
Drawings	N/A
Specifications	As Works Information
Constraints on how the contractor Provides the	N/A
Requirements for the Programme	See works completed by date
Services and other things provided by the Employer	N/A
Plant to be incorporated in the Works	N/A

- The Site Information is in Section 4 of the Minor Works Request Form
- The *extended liability period* for Plant is **N/A** following correction of a Defect or until the *defects date*, whichever is later.

2. Part two - data to be provided by the *Contractor*

The offered total of the Prices is to be provided in Section 2 of Minor Works Request Form

The entries for the Price List are given in Minor Works Request (Section 2)

The *named suppliers* are to be provided in Section 2 of Minor Works Request Form.

[redacted]

From: [redacted]
Sent: 31 May 2019 10:45
To: [redacted]
Cc:
Subject: Award letters
Attachments: [redacted] CVB_15M33ch_20190531_award.docx; [redacted]

Morning [redacted]

Could you issue the attached to [redacted] at Amco please.

Thanks

[redacted]

[redacted]
Historical Railways Estate (on behalf of Department for Transport)
Highways England | 37 Tanner Row | York | North Yorkshire | YO1 6WP
General Office: +44 (0) 1904 621924
[redacted]
Web: http://www.highwaysengland.co.uk
If you would like to make a request under the Freedom of information Act, please contact info@highwaysengland.co.uk

Highways England
Procurement
The Cube
199 Wharfside Street
Birmingham
B1 1RN

Direct Line: 0300 470 3101

31st May 2019

http://highwaysengland.co.uk

Our ref: CVB 15m 33ch
Your ref: HREMW16281

Amco
Yew Trees
Main Street North
Aberford
West Yorkshire
LS25 3AA

For the attention of: [redacted]

Dear [redacted]

CLOSED BRANCH LINES MINOR WORKS – CVB 15m 33ch – HORSE BATCH BRIDGE - REMEDIAL WORKS

Further to your quotation for the above works I am pleased to advise you that your price of £15,864.88 has been accepted. Please ensure that work does not commence until the ecologist has attended site and that all recommendations made by the ecologist are adhered to.

You should note that we will not pay for any works unless it has been specifically authorised in writing within the terms of the agreement.

Please note the works are to be undertaken under the Works Framework Contract 2016-2020 and the conditions of contract for these works are the *NEC3 Engineering and Construction Short Contract.*

Invoices should be sent to Financial Services Payments at Highways England, The Cube, 199 Wharfside Street, Birmingham B1 1RN, quoting the Blanket Purchase Agreement number, Release number and Receipt number. These details will be provided to you by the Historical Railways Estate team as works are certified.

I trust the above is acceptable. The agreed start date is 01/06/19, the Completion Date is to be 31/03/20, or as required by the ecologist. Should you wish to discuss the matter further please contact [redacted] the Project Manager Historical Railways Estate on [redacted]

Please acknowledge receipt and acceptance of this letter by return.

Yours faithfully

[redacted]

[redacted]

From: [redacted]
Sent: 24 September 2020 12:16
To: [redacted]
Subject: RE: CVB 15m 33ch (P2 Infill)

Hi [redacted]

Yes I'm free today, apart from 2-3pm again. I'd also like to briefly discuss the standard demolition specs that we're due to deliver next week, and I've also been asked for an update on the badger issues at GUA. What time would suit you for a call?

Regards

[redacted]
20 George Hudson Street | York | Y01 6WR | UK
Jacobs Challenging today. Reinventing tomorrow.

From: [redacted]
Sent: 24 September 2020 12:08
To: [redacted]
Subject: [EXTERNAL] RE: CVB 15m 33ch (P2 Infill)

Hi [redacted]

Are you around today at all?

Just looking at this one, it had a fair amount of repairs undertaken in Nov 2019, which then knocked it back up to a P4. It needs a new assessment soon, but condition-wise no particular issues.

It was a P2 for a year or so because it had parapets that were very close to falling onto an area used by a 3rd party for storage (they were moving at a somewhat significant rate due to large root ingress), but the parapets have been rebuilt and the spandrels and wingwalls repaired/repointed.

Short of an assessment failure we can look to remove this one.

Kind regards

[redacted]
[redacted]
Historical Railways Estate (on behalf of Department for Transport)
Highways England | 37 Tanner Row | York | North Yorkshire | YO1 6WP
General Office: +44 (0) 1904 621924
[redacted]
Web: http://www.highwaysengland.co.uk

From: [redacted]
Sent: 23 September 2020 12:03
To: [redacted]
Subject: CVB 15m 33ch (P2 Infill)

Hi [redacted]

Are you free for a chat at any point today? There are one or two of your structures I would like to discuss. Any time that suits you today (apart from 2-3pm) or tomorrow will be fine.

Regards

[redacted]
20 George Hudson Street | York | Y01 6WR | UK
Jacobs Challenging today. Reinventing tomorrow.
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https://www.gov.uk/government/organisations/highways-england | info@highwaysengland.co.uk

Registered in England and Wales no 9346363 | Registered Office: Bridge House, 1 Walnut Tree Close, Guildford, Surrey GU1 4LZ

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1180 Eskdale Road, Winnersh, Wokingham RG41 5TU
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Registered in England and Wales no 9346363 | Registered Office: Bridge House, 1 Walnut Tree Close, Guildford, Surrey GU1 4LZ

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ELR	No.	M	Ch	OS Reference	Name	Score	Priority	Demolish/infill	Confirmed or Developing plans?
BGB	6	0	47	SJ341942	Brasenose Road Tunnel	92.80	Priority 1	Infill	Developing
LAR	2	30	0	NS234428	Glasgow Street	96.00	Priority 1	Infill	Developing
ANB	4	0	56	NY225727	Tilekiln	64.00	Priority 2	Infill	Developing
CJD	21	5	69	NX916717	Station Bridge	72.00	Priority 2	Infill	Developing
AYH	1	0	19	NS339231	Limekiln Road	48.00	Priority 3	Infill	Developing
DAK	73	0	0	NS314444		18.00	Priority 4	Demolish	Developing
DAK	97	0	0	NS400397	Crosshouse	128.00	Priority 1	Infill	Developing
WTD	1	0	0	NS683727	Bedcow	72.00	Priority 2	Infill	Developing
WTD	3	0	0	NS682718	East Muckcroft	24.00	Priority 4	Infill	Developing
AGB	3	2	41	NT483797	Luffness Mains	72.00	Priority 2	Infill	Developing
AGB	5	3	31	NT487808	Fenton	72.00	Priority 2	Infill	Developing
PRD	4	0	57	NS559648	Carmichael Street	69.60	Priority 2	Infill	Developing
BCL		97	28	SP079208	Littlewell Bridge	72.00	Priority 2	Demolish	Developing
BCL		106	28	SO943205	Moorend Park Road	72.00	Priority 2	Infill	Developing
AYT	55	19	45	SN652570	Pont-Llanio overbridge	36.00	Priority 3	Infill	Developing
AND	18	8	3	SU244535	Collingbourne Ducis	72.00	Priority 2	Demolish	Developing
BOK1	283	2	3	TQ336847	Dalston Lane	96.00	Priority 1	Infill	Developing
HOL	1073	70	24	TM240316	Parkeston	72.00	Priority 2	Infill	Developing
MCJ3	506	139	15	SP559494	Cockwell Farm Road	96.00	Priority 1	Infill	Developing
PMY2	76	6	66	TF703238	Congham Road Bridge	144.00	Priority 1	Infill	Developing
THA	21	14	62	SP573047	Horspath Bridge, Cuddesdon Road	144.00	Priority 1	Repair or demolish	Developing
WFM	836	36	17	TQ835991	Stow Maries Halt	144.00	Priority 1	Infill	Developing
AWM	3	0	74	SU195259	Whaddon Bridge, Alderbury	72.00	Priority 2	Demolish	Developing
BRP	8	3	46	SY547974	Barrowland Lane	108.00	Priority 1	Demolish	Developing
EVL	2055	6	37	TR203504	Off Valley Road	36.00	Priority 3	Repair or demolish	Developing
HGG2	1	0	39	TQ423149	Church Lane	52.80	Priority 2	Infill	Developing
SUX	4A	1	7	SK049313	Bramshall Tunnel	48.00	Priority 3	Infill	Developing
ARB	10	0	0	SP130595	Great Alne (Ford Railway)	52.80	Priority 2	Infill	Developing
SJT1	80A	31	46	SP289508	River Dene culvert arch	24.00	Priority 4	Demolish	Developing
WMJ	48	14	18	SP433648	Weedon	72.00	Priority 2	Infill	Developing
WAB	8	1	76	SK782247	Waltham to Chadwell Road.	48.00	Priority 3	Infill	Developing
KLO	6	2	33	NT958508		18.00	Priority 4	Demolish	Developing
KLO	11	4	19	NT941489	Velvet Hall	18.00	Priority 4	Demolish	Developing
KLO	27	10	44	NT872424	St. Cuthberts	18.00	Priority 4	Demolish	Developing
KLO	32	12	43	NT863395		18.00	Priority 4	Demolish	Developing
AKC	3	1	2	NT865377		12.00	Priority 4	Demolish	Developing
AKC	35	14	21	NT998274	Haugh Head, Wooler	96.00	Priority 1	Infill	Developing
CFH1	12	6	34	SE455446	Rudgate Road	72.00	Priority 2	Infill	Developing
HQU	3D	197	0	SE095300	Queensbury Tunnel	192.00	Priority 1	Infill	Developing
EDE	25	4	10	NY764136	Great Musgrave	64.00	Priority 2	Infill	Developing
UCJ	6	1	31	NY401552	Rome Street	24.00	Priority 4	Infill	Developing
CKP	87	18	38	NY349258	Hill Cottage	72.00	Priority 2	Infill	Developing
CKP	94	20	0	NY374265	Gillsrow	48.00	Priority 3	Infill	Developing
CLS	14	0	62	SH493621	Peblig Mill Bridge	64.00	Priority 2	Infill	Developing
HYB	31	11	17	SO348486	Hurstley bridge, near Kinnersley	72.00	Priority 2	Infill	Developing
HYB	33	12	9	SO334487	Gough's Bridge, Kinnersley	72.00	Priority 2	Infill	Developing
FFD		81	16	SP278042	Alvescot Station	72.00	Priority 2	Infill	Developing
GNQ4	8	2	51	SJ513393	Llangollen Canal Bridge	96.00	Priority 1	Demolish	Developing
RWJ	8			SP496791	Cosford	72.00	Priority 2	Infill	Developing
HTL	61	0	0	NS595688	Ashfield Street	96.00	Priority 1	Infill	Developing
END	709	25	1	TQ614720	Station Road Sou hfleet	72.00	Priority 2	Infill	Developing
BNK	42	95	5	SP323302		144.00	Priority 1	Demolish	Developing
ALP	6	0	0	TQ293899	Dukes Avenue	96.00	Priority 1	Repair or Demolish	Developing
MMR	2333			TF596110	Wiggenhall St Mary Magdalen	144.00	Priority 1	Demolish	Developing