



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: PRIORITY MAINTENANCE FOR WEIGHT LIMIT SIGNS,
BEAMS, AND ABUTMENT AT END BENT 1. NEWLY
STRUCTURALLY DEFICIENT. CHANGE TO
STRUCTURE DATA.

Structure Safety Report

Routine Element Inspection - Contract

COUNTY: BURKE STRUCTURE NUMBER: 110145 FREQUENCY: 24 MONTHS

FACILITY CARRIED: SR1430 MILE POST:

LOCATION: .05 MI.N.JCT.SR1431

FEATURE INTERSECTED: BRISTOL CREEK

LATITUDE: 35° 49' 37.67" LONGITUDE: 81° 39' 14.7"

SUPERSTRUCTURE: TIMBER FLOOR ON I-BEAMS

SUBSTRUCTURE: E.BT1:TIM.CAPS/TIM.POST&SILL;E.BT2:TIM.CAPS/TIM.PILES

SPANS: 1 @ 40'-6

☐ FRACTURE CRITICAL ☐ TEMPORARY SHORING ☒ SCOUR CRITICAL ☒ SCOUR PLAN OF ACTION

PRESENT CONDITION: Poor INSPECTION DATE: 10/03/2017

POSTED SV: 19 Not Posted POSTED TTST: 24 Not Posted

OTHER SIGNS PRESENT: NONE



LOOKING NORTH

Sign noticed issued for		Number Required
<u>YES</u>	WEIGHT LIMIT	<u>2</u>
<u>NO</u>	DELINEATORS	<u>0</u>
<u>NO</u>	NARROW BRIDGE	<u>0</u>
<u>NO</u>	ONE LANE BRIDGE	<u>0</u>
<u>NO</u>	LOW CLEARANCE	<u>0</u>

DIRECTION OF
INSPECTION S-N

DIRECTION
MATCHES PLANS

INSPECTED BY GREGORY COLS	SIGNATURE 	ASSISTED BY ALLYSON ORR
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Structure Element Scoring

Structure Number: **110145**

Inspection Date **10/3/2017**

Element Number	Parent Number	Element Name	Location	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity
31	0	Timber Deck	Deck	804	724	0	80	0
107	0	Steel Open Girder/Beam	Beam	320	0	177	143	0
515	107	Steel Protective Coating	Beam	1368	0	0	0	1368
216	0	Timber Abutment	Abutments	50	28	0	22	0
228	0	Timber Pile	Piles and Columns	6	6	0	0	0
235	0	Timber Pier Cap	Caps	40	39	0	1	0
316	0	Other Bearings	Bearing Device	16	0	0	16	0
515	316	Steel Protective Coating	Bearing Device	16	0	0	0	16
330	0	Metal Bridge Railing	Bridge Rail	82	69	12	1	0
515	330	Steel Protective Coating	Bridge Rail	364	274	0	90	0
510	0	Wearing Surface	Wearing Surfaces	767	0	0	767	0

Summary of Maintenance Needs

Maintenance By Defect

Structure Number: 110145

Inspection Date: 10/03/2017

MMS Code	Element Name	Defect Name	Recommended Quantity
3324	Timber Deck	Connection	80 Square Feet
3314	Steel Open Girder/Beam	Corrosion	143 Feet
3346	Timber Abutment	Decay/Section Loss	22 Feet
3344	Timber Pier Cap	Decay/Section Loss	1 Feet
3334	Other Bearings	Corrosion	16 Each
3322	Metal Bridge Railing	Corrosion	24 Square Feet
3322	Metal Bridge Railing	Connection	1 Feet
2816	Wearing Surface	Patched Area/Pothole (Wearing Surface)	20 Square Feet
2816	Wearing Surface	Effectiveness (Wearing Surface)	747 Square Feet
3342	Steel Protective Coating	Effectiveness (Steel Protective Coatings)	1474 Square Feet

Element Structure Maintenance Quantities

Structure Number: **110145**

Inspection Date **10/03/2017**

Location	MMS Code	Description	Maint Quantity	Total Quantity	Severe Quantity	Poor Quantity	Fair Quantity	Good Quantity
Abutments	3346	Maintenance of Timber Bulkheads or Wingwalls	22	50	0	22	0	28
Beam	3314	Maintenance Steel Superstructure Components	143	320	0	143	177	0
Beam	3342	Clean and Paint Steel	1368	1368	1368	0	0	0
Bearing Device	3334	Bridge Bearing	16	16	0	16	0	0
Bearing Device	3342	Clean and Paint Steel	16	16	16	0	0	0
Bridge Rail	3322	Maintenance of Steel Bridge Rail	25	82	0	1	12	69
Bridge Rail	3342	Clean and Paint Steel	90	364	0	90	0	274
Caps	3344	Maintenance To Timber Substrcutre	1	40	0	1	0	39
Deck	3324	Maintenance of Timber Deck Components	80	804	0	80	0	724
Piles and Columns	3344	Maintenance To Timber Substrcutre	0	6	0	0	0	6
Wearing Surfaces	2816	Asphalt Surface Repair	767	767	0	767	0	0

Element Condition and Maintenance Data

Structure Number: 110145

Inspection Date: 10/03/2017

Span 1 Deck

Timber Deck

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
31	Timber Deck	804	724	0	80	0 Square Feet
515	Steel Protective Coating	810	810	0	0	0 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
31	Connection	TIMBER EDGE BOARDS BOTH SIDES ARE LOOSE AND WARPED FULL LENGTH	3	80	80 Square Feet

General Comments

Span 1 Beam 1

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Open Girder/Beam	40	0	34	6	0 Feet
515	Steel Protective Coating	171	0	0	0	171 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
107	Corrosion	HEAVY CORROSION OF TOP FLANGE EXTENDING FROM END BENT 2 WITH FLAKING RUST AND SECTION LOSS WITH 6 FT X 7/16" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)	3	6	6 Feet
107	Corrosion	SURFACE CORROSION WITH SOME RUST SCALE FULL LENGTH BOTH FLANGES AND WEB	2	34	Feet
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	171	171 Square Feet

General Comments

Span 1 Beam 2

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Open Girder/Beam	40	0	40	0	0 Feet
515	Steel Protective Coating	171	0	0	0	171 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
107	Corrosion	SURFACE CORROSION AND RUST SCALE FULL LENGTH AT TOP FLANGE AND SURFACE RUST OF WEB AND BOTTOM FLANGE	2	40	Feet
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	171	171 Square Feet

General Comments

Span 1**Beam 3****Plate Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	40	0	0	40	0	Feet
515	Steel Protective Coating	171	0	0	0	171	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	HEAVY CORROSION OF TOP FLANGE FULL LENGTH WITH FLAKING RUST AND SECTION LOSS 3/8" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)	3	40	40	Feet
107	Corrosion	SURFACE CORROSION OF BOTTOM FLANGE AND WEB FULL LENGTH	2			Feet
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	171	171	Square Feet

General Comments

Span 1**Beam 4****Plate Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	40	0	0	40	0	Feet
515	Steel Protective Coating	171	0	0	0	171	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	HEAVY CORROSION OF BOTTOM FLANGE AT END BENT 2 WITH FLAKING RUST AND SECTION LOSS 2 FT X 3/8" X 5 7/8" REMAINING. (PRIORITY MAINTENANCE)	3	2	2	Feet
107	Corrosion	HEAVY CORROSION OF TOP FLANGE WITH FLAKING RUST AND SECTION LOSS FULL LENGTH WITH 3/8" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)	3	38	38	Feet
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	171	171	Square Feet

General Comments

Span 1**Beam 5****Plate Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	40	0	40	0	0	Feet
515	Steel Protective Coating	171	0	0	0	171	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	SURFACE RUST THROUGHOUT WEB AND BOTH FLANGES WITH SOME RUST SCALE ON TOP FLANGE BUT NO SECTION LOSS	2	40		Feet
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	171	171	Square Feet

General Comments

Span 1**Beam 6****Plate Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Open Girder/Beam	40	0	32	8	0 Feet
515	Steel Protective Coating	171	0	0	0	171 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
107	Corrosion	HEAVY CORROSION TOP FLANGE AT MID SPAN WITH FLAKING RUST AND SECTION LOSS WITH 8 FT X 3/8" X 5 1/2" REMAINING. (PRIORITY MAINTENANCE)	3	8	8 Feet
107	Corrosion	SURFACE RUST THROUGHOUT WEB AND BOTH FLANGES FULL LENGTH	2	32	Feet
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	171	171 Square Feet

General Comments

Span 1**Beam 7****Plate Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Open Girder/Beam	40	0	31	9	0 Feet
515	Steel Protective Coating	171	0	0	0	171 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
107	Corrosion	HEAVY CORROSION AT BOTTOM FLANGE AT END BENT 2 WITH FLAKING RUST AND SECTION LOSS 3 FT LONG X 7/16" X 5 7/8" REMAINING. (PRIORITY MAINTENANCE)	3	3	3 Feet
107	Corrosion	HEAVY CORROSION WITH FLAKING RUST AND SECTION LOSS AT TOP FLANGE AT MID SPAN 6 FT X 1/4" X 5" REMAINING (PRIORITY MAINTENANCE)	3	6	6 Feet
107	Corrosion	REMAINING LENGTH OF BEAM HAS SURFACE RUST ON BOTH FLANGES AND WEB FULL LENGTH	2	31	Feet
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	171	171 Square Feet

General Comments

Span 1**Beam 8****Plate Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Open Girder/Beam	40	0	0	40	0 Feet
515	Steel Protective Coating	171	0	0	0	171 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
107	Corrosion	SEVERE CORROSION OF TOP FLANGE FULL LENGTH WITH FLAKING RUST AND SECTION LOSS. ALSO AT BOTTOM FLANGE FOR 10 FT AT MID SPAN AND 10 FT AT END BENT 2. REMAINING TOP FLANGE IS 1/4" X 5" THROUGHOUT. REMAINING BOTTOM FLANGE IS 7/16" X 5 7/8" AT MID SPAN. (PRIORITY MAINTENANCE)	3	40	40 Feet
515	Effectiveness (Steel Protective Coatings)	PAINT HAS FAILED	4	171	171 Square Feet

General Comments

Span 1 Wearing Surface**Asphalt Wearing Surface**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	767	0	0	767	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
510	Effectiveness (Wearing Surface)	REFLECTIVE TRANSVERSE CRACKS UP TO 1/4" WIDE THROUGHOUT	3	747	747	Square Feet
510	Patched Area/Pothole (Wearing Surface)	8" X 2" X 2" DEEP POT HOLE AT CENTERLINE BRIDGE AT MID SPAN WITH 4 FT X 5 FT ASPHALT PATCH	3	20	20	Square Feet

General Comments

Span 1 Left Bridge Rail**Steel Rail**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
330	Metal Bridge Railing	41	35	6	0	0	Feet
515	Steel Protective Coating	182	137	0	45	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
330	Corrosion	RAIL POST OUTRIGGERS HAVE SEVERE CORROSION WITH SECTION LOSS OF TOP FLANGE AND WEB UP TO 50% AT ALL LOCATIONS	3		12	Square Feet
330	Corrosion	SURFACE CORROSION ON ALL RAIL POSTS	2	6		Square Feet
515	Effectiveness (Steel Protective Coatings)	PROTECTIVE COATING HAS LIMITED EFFECTIVENESS ON ALL RAIL POSTS	3	45	45	Square Feet

General Comments

Span 1 Right Bridge Rail**Steel Rail**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
330	Metal Bridge Railing	41	34	6	1	0	Feet
515	Steel Protective Coating	182	137	0	45	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
330	Connection	MISSING BOLTS AT RAIL POST #3	3	1	1	Feet
330	Corrosion	HEAVY CORROSION OF POST OUTRIGGER AT ALL LOCATIONS WITH SECTION LOSS AT TOP FLANGE UP TO 50%.	3		12	Square Feet
330	Corrosion	SURFACE CORROSION AT ALL RAIL POSTS	2	6		Square Feet
515	Effectiveness (Steel Protective Coatings)	PROTECTIVE COATING HAS LIMITED EFFECTIVENESS AT ALL RAIL POSTS	3	45	45	Square Feet

General Comments

Span 1**Near Bearing 1****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty		
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1	Each	
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1	Square Feet	
General Comments							

Span 1**Far Bearing 1****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty		
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1	Each	
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1	Square Feet	
General Comments							

Span 1**Near Bearing 2****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty		
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1	Each	
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1	Square Feet	
General Comments							

Span 1**Far Bearing 2****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty		
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1	Each	
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1	Square Feet	

General Comments**Span 1 Near Bearing 3****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
316	Other Bearings	1	0	0	1	0 Each
515	Steel Protective Coating	1	0	0	0	1 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1 Each
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1 Square Feet

General Comments**Span 1 Far Bearing 3****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
316	Other Bearings	1	0	0	1	0 Each
515	Steel Protective Coating	1	0	0	0	1 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1 Each
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1 Square Feet

General Comments**Span 1 Near Bearing 4****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
316	Other Bearings	1	0	0	1	0 Each
515	Steel Protective Coating	1	0	0	0	1 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1 Each
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1 Square Feet

General Comments**Span 1 Far Bearing 4****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
316	Other Bearings	1	0	0	1	0 Each
515	Steel Protective Coating	1	0	0	0	1 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
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Inspection Date: 10/03/2017

General Comments

Other Bearing

General Comments

Other Bearing

General Comments

Other Bearing

General Comments

Span 1**Far Bearing 6****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty		
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1	Each	
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1	Square Feet	
General Comments							

Span 1**Near Bearing 7****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty		
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1	Each	
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1	Square Feet	
General Comments							

Span 1**Far Bearing 7****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty		
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1	Each	
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1	Square Feet	
General Comments							

Span 1**Near Bearing 8****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
316	Other Bearings	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty		
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1	Each	
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1	Square Feet	

General Comments**Span 1 Far Bearing 8****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
316	Other Bearings	1	0	0	1	0 Each
515	Steel Protective Coating	1	0	0	0	1 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
316	Corrosion	SEVERE CORROSION WITH FLAKING RUST	3	1	1 Each
515	Effectiveness (Steel Protective Coatings)	PAINT FAILED	4	1	1 Square Feet

General Comments**End Bent 1 Abutment****Timber Abutment**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
216	Timber Abutment	25	9	0	16	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
216	Decay/Section Loss	2 FT X 2" X FULL DEPTH DECAY WITH SOIL SPILL THROUGH BETWEEN PILES 1 AND 2 (PRIORITY MAINTENANCE)	3	2	2 Feet
216	Decay/Section Loss	2 FT X 4" X FULL DEPTH DECAY OF BULKHEAD BETWEEN BEAMS 5 AND 6 (PRIORITY MAINTENANCE)	3	2	2 Feet
216	Decay/Section Loss	DECAY OF TOP BULKHEAD BOARD AT SOUTHEAST CORNER	3	6	6 Feet
216	Decay/Section Loss	DECAY OF TOP BULKHEAD BOARD AT SOUTHWEST CORNER	3	6	6 Feet

General Comments**End Bent 1 Cap 1****Timber Pier Cap**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
235	Timber Pier Cap	20	20	0	0	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
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General Comments

STEEL CHANNEL ON TOP OF CAP IS SEVERELY CORRODED WITH PACK RUST

End Bent 2 Abutment**Timber Abutment**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
216	Timber Abutment	25	19	0	6	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
216	Decay/Section Loss	DECAY OF TOP BULKHEAD BOARD AT NORTHEAST CORNER	3	6	6 Feet

General Comments**End Bent 2****Cap 1****Timber Pier Cap**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
235	Timber Pier Cap	20	19	0	1	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
235	Decay/Section Loss	4" X 6" X 3" DECAY AT EAST END OF CAP	3	1	1	Feet

General Comments

STEEL CHANNEL ON TOP OF CAP IS SEVERELY CORRODED WITH PACK RUST

Elements Verified

Location	Name	Component	Element Name	Amount
Span 1	Deck	Timber Deck	Timber Deck	804
Span 1	Beam 1	Plate Girder	Steel Open Girder/Beam	40
Span 1	Beam 2	Plate Girder	Steel Open Girder/Beam	40
Span 1	Beam 3	Plate Girder	Steel Open Girder/Beam	40
Span 1	Beam 4	Plate Girder	Steel Open Girder/Beam	40
Span 1	Beam 5	Plate Girder	Steel Open Girder/Beam	40
Span 1	Beam 6	Plate Girder	Steel Open Girder/Beam	40
Span 1	Beam 7	Plate Girder	Steel Open Girder/Beam	40
Span 1	Beam 8	Plate Girder	Steel Open Girder/Beam	40
Span 1	Left Bridge Rail	Steel Rail	Metal Bridge Railing	41
Span 1	Right Bridge Rail	Steel Rail	Metal Bridge Railing	41
Span 1	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	767
Span 1	Far Bearing 1	Other Bearing	Other Bearings	1
Span 1	Near Bearing 1	Other Bearing	Other Bearings	1
Span 1	Near Bearing 2	Other Bearing	Other Bearings	1
Span 1	Far Bearing 2	Other Bearing	Other Bearings	1
Span 1	Far Bearing 3	Other Bearing	Other Bearings	1
Span 1	Near Bearing 3	Other Bearing	Other Bearings	1
Span 1	Near Bearing 4	Other Bearing	Other Bearings	1
Span 1	Far Bearing 4	Other Bearing	Other Bearings	1
Span 1	Far Bearing 5	Other Bearing	Other Bearings	1
Span 1	Near Bearing 5	Other Bearing	Other Bearings	1
Span 1	Near Bearing 6	Other Bearing	Other Bearings	1
Span 1	Far Bearing 6	Other Bearing	Other Bearings	1
Span 1	Far Bearing 7	Other Bearing	Other Bearings	1
Span 1	Near Bearing 7	Other Bearing	Other Bearings	1
Span 1	Near Bearing 8	Other Bearing	Other Bearings	1
Span 1	Far Bearing 8	Other Bearing	Other Bearings	1
End Bent 1	Cap 1	Timber Pier Cap	Timber Pier Cap	20
End Bent 1	Pile 1	Timber Pile	Timber Pile	1
End Bent 1	Pile 2	Timber Pile	Timber Pile	1
End Bent 1	Pile 3	Timber Pile	Timber Pile	1
End Bent 1	Abutment	Timber Abutment	Timber Abutment	25
End Bent 2	Cap 1	Timber Pier Cap	Timber Pier Cap	20
End Bent 2	Pile 1	Timber Pile	Timber Pile	1
End Bent 2	Pile 2	Timber Pile	Timber Pile	1
End Bent 2	Pile 3	Timber Pile	Timber Pile	1
End Bent 2	Abutment	Timber Abutment	Timber Abutment	25

General Inspection Notes

Bent 1

Cap 1

STEEL CHANNEL ON TOP OF CAP IS SEVERELY CORRODED WITH PACK RUST

National Bridge and NC Inspection Items

Structure Number: 110145

Inspection Date: 10/03/2017

National Bridge Inventory Items

Item	Grade Scale	Grade
Item 58: Deck	0 - 9 , N	5
Item 59: Superstructure	0 - 9 , N	4
Item 60: Substructure	0 - 9 , N	5
Item 61: Channel and Channel Protection	0 - 9 , N	7
Item 62: Culvert	0 - 9 , N	N
Item 71: Waterway Adequacy	0 - 9 , N	7
Item 72: Approach Roadway Alignment	0 - 9 , N	6

Note: If NBI Inspection Item is not present, code NBI item with "N"

NC SMU Inspection Items

Item	Grade Scale	Grade	Maint. Qty.	Maint. Code
Deck Debris	G, F, P, or C	G	0	3376
Drainage System	G, F, P, or C	G	0	3332
Utilities	G, F, P, or C			
Slope Protection	G, F, P, or C		0	3352
Scour	G, F, P, or C	G		
Wingwall	G, F, P, or C		0	3350
Field Scour Evaluation		O		
Drift	G, F, P, or C	G	0	3366
Fender System	G, F, P, or C		0	3364
Movable Span Machinery	G, F, P, or C			
Response to Live Load	G, F, P, or C	F		
Estimated Remaining Life	0 - 100 Years	2		
Superstructure Paint Code		U		

Note: If NC SMU Inspection Item is not present, leave NC SMU item blank

Inspection Information

Item	Grade Scale	Grade
Regulatory Sign Noticed Issued	YES/NO	Y
Priority Maintenance Request Submitted	YES/NO	Y
Inspection Time	Hours	5
Traffic Control Time	Hours	0
Snooper Time	Hours	0
Ladder Used	YES/NO	N
Bucket Truck Used	YES/NO	N
Boat Used	YES/NO	N
Other Equipment Used	YES/NO	N

National Bridge and NC SMU Inspection Item Details

Structure Number: 110145

Inspection Date: 10/03/2017

Item	Superstructure - Item 59	Grade	4	Maint Code		Qty.	0
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Details REDUCED FROM GRADE 5 TO 4 DUE TO WIDESPREAD SECTION LOSS THROUGHOUT STEEL BEAMS.

Item	Regulatory Sign Notice Issued	Grade	Y	Maint Code		Qty.	0
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Details MISSING POSTING SIGNS

Item	Presently Posted	Grade	Y	Maint Code		Qty.	0
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Details NO POSTING SIGNS PRESENT. SHOULD BE POSTED SV 19 TONS TTST 24 TONS.

Item	Response to live load	Grade	F	Maint Code		Qty.	0
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Details SOME DECK BOARDS ARE LOOSE AND RATTLE UNDER LIVE LOADING

Item	Field Scour Evaluation	Grade	O	Maint Code		Qty.	0
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Details CHANGED FROM "U" TO "O"
NO SCOUR AT THIS TIME. NO PLANS AVAILABLE, BUT SILL ELEVATION IS KNOWN FOR END BENT 1 AND PILE LENGTHS HAVE BEEN ESTIMATED FOR END BENT 2. REFER TO BRIDGE SCOUR REPORT DATED 2/11/2010.

Item	General Comments and Misc Items	Grade		Maint Code		Qty.	0
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Details APPROACH ROADWAY: IMPACT DAMAGE TO APPROACH GUARDRAIL AT NORTHEAST CORNER 2 FT LONG
POST SPACING AT APPROACH GUARDRAIL IS 12 FT



Span 1 Wearing Surface: REFLECTIVE TRANSVERSE CRACKS THROUGHOUT



Span 1 Wearing Surface: 8" X 2" X 2" DEEP POT HOLE AT CENTERLINE BRIDGE AT MID SPAN WITH 4 FT X 5 FT ASPHALT PATCH



Span 1 Deck: TIMBER EDGE BOARDS BOTH SIDES ARE LOOSE AND WARPED FULL LENGTH



Span 1 Right Bridge Rail: MISSING BOLTS AT RAIL POST #3



APPROACH ROADWAY: IMPACT DAMAGE TO APPROACH GUARDRAIL AT NORTHEAST CORNER 2 FT LONG



Span 1 Left Bridge Rail: SURFACE CORROSION ON ALL RAIL POSTS



Span 1 Right Bridge Rail: SURFACE CORROSION AT ALL RAIL POSTS



End Bent 1 Abutment/Backwall : DECAY OF TOP BULKHEAD BOARD AT SOUTHEAST CORNER



End Bent 1 Abutment/Backwall : DECAY OF TOP BULKHEAD BOARD AT SOUTHWEST CORNER



End Bent 2 Abutment/Backwall : DECAY OF TOP BULKHEAD BOARD AT NORTHEAST CORNER



Span 1 Beam 8: SEVERE CORROSION OF BOTTOM FLANGE FOR 10 FT AT MID SPAN AND 10 FT AT END BENT
2. REMAINING BOTTOM FLANGE IS $\frac{7}{16}$ " X $5 \frac{7}{8}$ " AT MID SPAN. BOTTOM FLANGE SHOWN (PRIORITY MAINTENANCE)



Span 1 Beam 8: SEVERE CORROSION OF TOP FLANGE FULL LENGTH WITH FLAKING RUST AND SECTION LOSS. REMAINING TOP FLANGE IS 1/4" X 5" THROUGHOUT. NORTH SIDE TOP FLANGE SHOWN (PRIORITY MAINTENANCE)



Span 1 Beam 8: SEVERE CORROSION OF TOP FLANGE FULL LENGTH WITH FLAKING RUST AND SECTION LOSS. REMAINING TOP FLANGE IS 1/4" X 5" THROUGHOUT. SOUTH SIDE TOP FLANGE SHOWN (PRIORITY MAINTENANCE)



Span 1 Right Bridge Rail: HEAVY CORROSION OF POST OUTRIGGER AT ALL LOCATIONS WITH SECTION LOSS AT TOP FLANGE UP TO 50%.



Span 1 Beam 7: HEAVY CORROSION AT BOTTOM FLANGE AT END BENT 2 WITH FLAKING RUST AND SECTION LOSS 3 FT LONG X 7/16" X 5 7/8" REMAINING. (PRIORITY MAINTENANCE)



Span 1 Beam 7: HEAVY CORROSION WITH FLAKING RUST AND SECTION LOSS AT TOP FLANGE AT MID SPAN
6 FT X 1/4" X 5" REMAINING (PRIORITY MAINTENANCE)



Span 1 Beam 7: REMAINING LENGTH OF BEAM HAS SURFACE RUST ON BOTH FLANGES AND WEB FULL
LENGTH



Span 1 Beam 6: HEAVY CORROSION TOP FLANGE AT MID SPAN WITH FLAKING RUST AND SECTION LOSS WITH 8 FT X 3/8" X 5 1/2" REMAINING. (PRIORITY MAINTENANCE)



Span 1 Beam 6: SURFACE RUST THROUGHOUT WEB AND BOTH FLANGES FULL LENGTH



Span 1 Beam 5: SURFACE RUST THROUGHOUT WEB AND BOTH FLANGES WITH SOME RUST SCALE ON TOP FLANGE BUT NO SECTION LOSS



Span 1 Beam 4: HEAVY CORROSION OF BOTTOM FLANGE AT END BENT 2 WITH FLAKING RUST AND SECTION LOSS 2 FT X 3/8" X 5 7/8" REMAINING. (PRIORITY MAINTENANCE)



Span 1 Beam 4: HEAVY CORROSION OF TOP FLANGE WITH FLAKING RUST AND SECTION LOSS FULL LENGTH WITH 3/8" X 5 1/2" REMAINING. SOUTH SIDE SHOWN (PRIORITY MAINTENANCE)



Span 1 Beam 4: HEAVY CORROSION OF TOP FLANGE WITH FLAKING RUST AND SECTION LOSS FULL LENGTH WITH 3/8" X 5 1/2" REMAINING. NORTH SIDE SHOWN (PRIORITY MAINTENANCE)



Span 1 Beam 3: HEAVY CORROSION OF TOP FLANGE FULL LENGTH WITH FLAKING RUST AND SECTION LOSS 3/8" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)



Span 1 Beam 3: HEAVY CORROSION OF TOP FLANGE FULL LENGTH WITH FLAKING RUST AND SECTION LOSS 3/8" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)



Span 1 Beam 2: SURFACE CORROSION AND RUST SCALE FULL LENGTH AT TOP FLANGE AND SURFACE RUST OF WEB AND BOTTOM FLANGE



Span 1 Beam 1: HEAVY CORROSION OF TOP FLANGE EXTENDING FROM END BENT 2 WITH FLAKING RUST AND SECTION LOSS WITH 6 FT X 7/16" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)



Span 1 Beam 1: SURFACE CORROSION WITH SOME RUST SCALE FULL LENGTH BOTH FLANGES AND WEB



Span 1 Left Bridge Rail: RAIL POST OUTRIGGERS HAVE SEVERE CORROSION WITH SECTION LOSS OF TOP FLANGE AND WEB UP TO 50% AT ALL LOCATIONS



End Bent 2 Cap 1: 4" X 6" DEEP DECAY AT EAST END OF CAP



Span 1 Beam 3 Near Bearing 3: SEVERE CORROSION WITH FLAKING RUST



End Bent 1 Abutment/Backwall : 2 FT X 2" X FULL DEPTH DECAY WITH SOIL SPILL THROUGH BETWEEN PILES 1 AND 2 (PRIORITY MAINTENANCE)



End Bent 1 Abutment/Backwall : 2 FT X 4" X FULL DEPTH DECAY OF BULKHEAD BETWEEN BEAMS 5 AND 6 (PRIORITY MAINTENANCE)



End Bent 2 Cap 1: 4" X 6" X 3" DECAY AT EAST END OF CAP



LOOKING NORTH



SOUTHEAST APPROACH GUARDRAIL



RIGHT RAIL



SOUTHWEST APPROACH GUARDRAIL



LEFT RAIL



LOOKING SOUTH



NORTHWEST APPROACH GUARDRAIL



NORTHEAST APPROACH GUARDRAIL



LOOKING UPSTREAM (WEST)



LOOKING DOWNSTREAM (EAST)



DOWNSTREAM (EAST) PROFILE



END BENT 1 PROFILE



END BENT 2 PROFILE



UPSTREAM (WEST) PROFILE

Stream Bed Soundings

(Profile diagram on following sheet)

County **BURKE**

Structure Number: **110145**

Inspection Date **10/03/2017**

Sounding recorded from: **Top of Bridge Rail**

Highwater Mark Distance

Location of Highwater Mark

Distance (Station) ft.	Downstream Sounding ft.	Upstream Sounding ft.	Description
0.000	3.200	0.000	FILL FACE
0.300	3.200	0.000	TOP OF WING
0.310	5.000	0.000	TOP OF CAP
1.200	5.000	0.000	
1.210	9.300	8.200	Water Surface/Water Edge (WSWE)
1.320	9.700	0.000	
3.500	9.800	0.000	
4.500	9.700	0.000	
6.500	9.600	0.000	
16.000	9.200	0.000	
24.500	9.100	0.000	
29.000	9.700	0.000	
33.000	9.000	0.000	Water Surface/Water Edge (WSWE)
39.490	7.000	7.500	STREAM FACE
39.500	5.000	0.000	TOP OF CAP
40.390	5.000	0.000	
40.400	3.200	0.000	TOP OF WING
40.700	3.200	0.000	FILL FACE

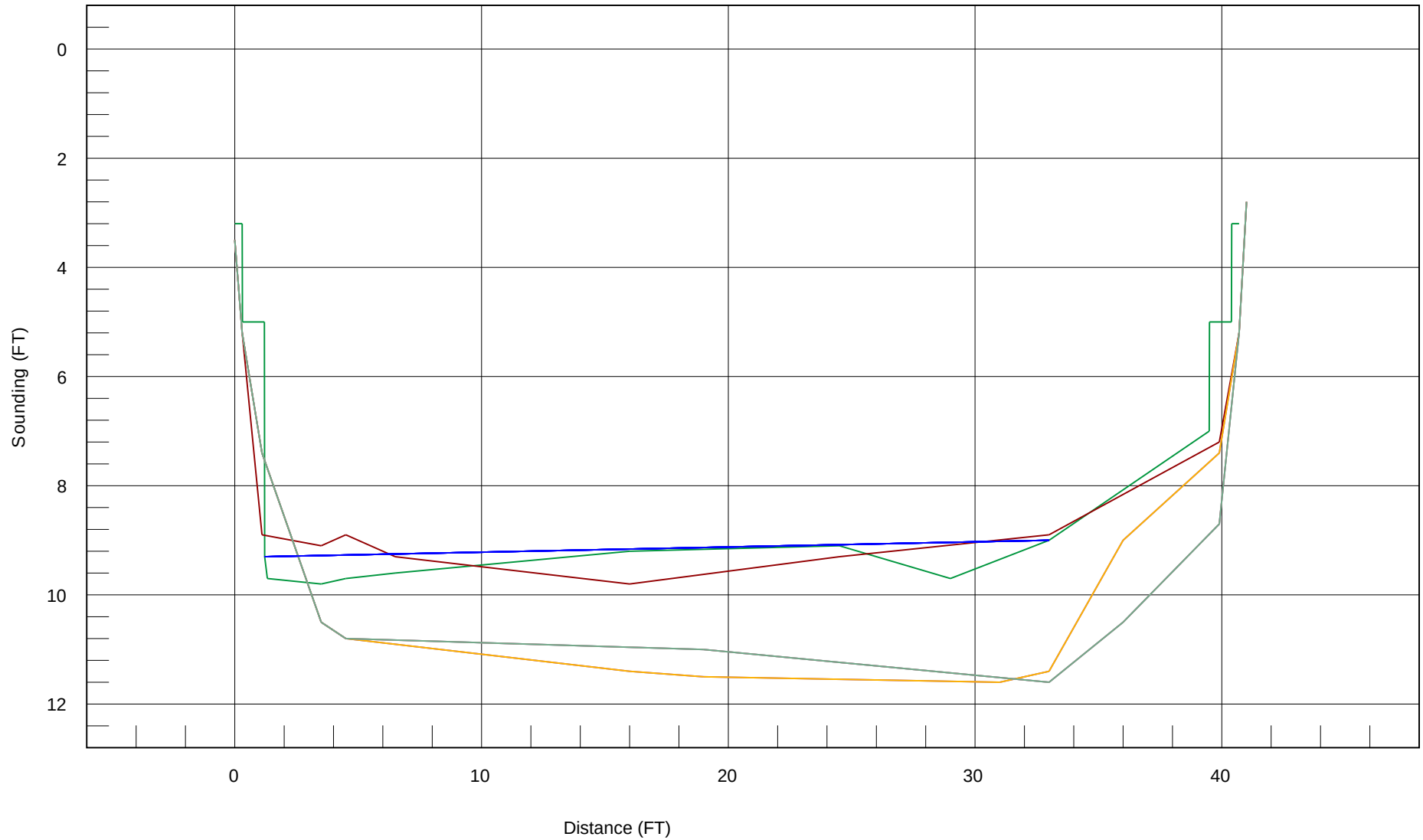
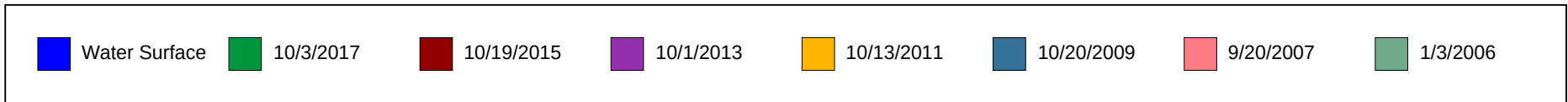
Bridge: 110145

County: BURKE

Date: 10/03/2017

STREAMBED PROFILE (Downstream)

Top of Rail = 0FT (Sounding)



NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL

Run Date: 01/16/2018

IDENTIFICATION					
(1) STATE NAME -NORTH CAROLINA	BRIDGE	110145		SUFFICIENCY RATING =	10.8
(8) STRUCTURE NUMBER(FEDERAL)		00000000230145		STATUS =	Structurally Deficient
(5) INVENTORY ROUTE (ON/UNDER) - ON		31014300			
(2) STATE HIGHWAY DEPARTMENT DISTRICT		1			
(3) COUNTY CODE	23	(4) PLACE CODE	0		
(6) FEATURE INTERSECTED -	BRISTOL CREEK				
(7) FACILITY CARRIED	SR1430				
(9) LOCATION	.05 MI.N.JCT.SR1431				
(11)MILEPOINT		0			
(16)LAT	35° 49' 37.67"	(17)LONG	81° 39' 14.70"		
(98)BORDER BRIDGE STATE CODE		PCT SHARE			
(99)BORDER BRIDGE STRUCTURE NO					
STRUCTURE TYPE AND MATERIAL				CLASSIFICATION	
(43) STRUCTURE TYPE MAIN:	Steel			(112)NBIS BRIDGE SYSTEM -	YES
TYPE -	Stringer Mutlibeam or Girder	CODE	302	(104)HIGHWAY SYSTEM	Is not on NHS 0
(44) STRUCTURE TYPE APPR :				(26) FUNCTIONAL CLASS -	Local 09
TYPE -		CODE	000	(100)STRAHNET HIGHWAY -	Not a STRAHNET Route 0
(45) NUMBER OF SPANS IN MAIN UNIT			1	(101)PARALLEL STRUCTURE -	No Parallel Structure N
(46) NUMBER OF APPROACH SPANS				(102)DIRECTION OF TRAFFIC -	2-way Traffic 2
(107)DECK STRUCTURE TYPE -	8	CODE		(103)TEMPORARY STRUCTURE -	
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(110)DESIGNATED NATIONAL NETWORK -	Not on the National Network 0
(A) TYPE OF WEARING SURFACE -		CODE		(20) TOLL	On Free Road 3
(B) TYPE OF MEMBRANE -		CODE		(31) MAINTAIN -	State Highway Agency 01
(C) TYPE OF DECK PROTECTION -		CODE		(22) OWNER -	State Highway Agency 01
				(37) HISTORICAL SIGNIFICANCE -	Not Eligible 5
				CONDITION	
				(58) DECK	5
				(59) SUPERSTRUCTURE	4
				(60) SUBSTRUCTURE	5
				(61) CHANNEL & CHANNEL PROTECTION	7
				(62) CULVERTS	N
				LOAD RATING AND POSTING	
				(31) DESIGN LOAD	Unknown 0
				(63) OPERATING RATING METHOD -	Allowable Stress 2
				(64) OPERATING RATING -	HS-8 14
				(65) INVENTORY RATING METHOD -	Load Factor 1
				(66) INVENTORY RATING -	HS-4 8
				(70) BRIDGE POSTING -	Posting Required 0
				(41) STRUCTURE OPEN, POSTED ,OR CLOSED	P
				DESCRIPTION -	Posted for Load
				APPRAISAL	
				(67) STRUCTURAL EVALUATION	3
				(68) DECK GEOMETRY	2
				(69) UNDERCLEARANCES,VERTI & HORIZ	N
				(71) WATERWAY ADEQUACY	7
				(72) APPROACH ROADWAY ALIGNMENT	6
				(36) TRAFFIC SAFETY FEATURES	0110
				(113)SCOUR CRITICAL BRIDGES	3
				PROPOSED IMPROVEMENTS	
				(75) TYPE OF WORK -	CODE
				(76) LENGTH OF STRUCTURE IMPROVEMENT	
				(94) BRIDGE IMPROVEMENT COST	
				(95) ROADWAY IMPROVEMENT COST	
				(96) TOTAL PROJECT COST	
				(97) YEAR OF IMPROVEMENT COST ESTIMATE	
				(114)FUTURE ADT	3200
				(115) YEAR FUTURE ADT	2025
				INSPECTIONS	
				(90) INSPECTION DATE	10/03/2017
				(92) CRITICAL FEATURE INSPECTION :	(93) CFI DATE
				A) FRACTURE CRIT DETAIL -	NO A)
				B) UNDERWATER INSP -	NO B)
				C) OTHER SPECIAL INSP	NO C)
				SCOUR	
NAVIGATION DATA					
(38) NAVIGATION CONTROL -	No Navigational Control	CODE	0		
(111)PIER PROTECTION -		CODE			
(39) NAVIGATION VERTICAL CLEARANCE			0		
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR			FT		
(40) NAVIGATION HORIZONTAL CLEARANCE			0 FT		

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 01/16/2018

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
BURKE	13	1	110145	41	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1430	BRISTOL CREEK

LOCATED :	BRIDGE NAME :	CITY :
.05 MI.N.JCT.SR1431		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	1600 2014	LT 253 RT 253

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1958	BMU			Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :		
			TAN	90	ON 2	UNDER	0

NAVIGATION :			HT. CRN. TO BED :		WATER DEPTH :		
VC 0 FT	HC 0 FT		7 FT		1		FT

SUPERSTRUCTURE :	TIMBER FLOOR ON I-BEAMS
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SUBSTRUCTURE :	E.BT1:TIM.CAPS/TIM.POST&SILL;E.BT2:TIM.CAPS/TIM.PILES
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SPANS :	1 @ 40'-6
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BEAMS OR GIRDERS :	8 LINES 18 I-BEAMS @ VAR.CENTERS
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FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
3X4 TIM/3 AWS		19.833 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
18.917 FT	18.917 FT	LT 0 FT RT 0 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	DATE
HS-4	HS-8	Bm 8	SV 10	10	01/11/2018

SYSTEM :	GREEN LINE ROUTE :
Secondary S.R. Route	N

UNDER ROUTES AND CLEARANCES

REMARKS :

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 110145

County BURKE

Date: 10/03/2017

These Repairs Should Be Made Within Twelve Months From Date Of This Inspection

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
 3352	Maint Slope Protection	SF	2	POSTING SIGNS ARE MISSING. BRIDGE SHOULD BE POSTED SV 19 TONS TTST 24 TONS.	
 3314	Maintain Steel Superstructure Components	LF	40	Span 1 Beam 3: HEAVY CORROSION OF TOP FLANGE FULL LENGTH WITH FLAKING RUST AND SECTION LOSS 3/8" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)	
 3314	Maintain Steel Superstructure Components	LF	2	Span 1 Beam 4: HEAVY CORROSION OF BOTTOM FLANGE AT END BENT 2 WITH FLAKING RUST AND SECTION LOSS 2 FT X 3/8" X 5 7/8" REMAINING. (PM)	
 3314	Maintain Steel Superstructure Components	LF	38	Span 1 Beam 4: HEAVY CORROSION OF TOP FLANGE WITH FLAKING RUST AND SECTION LOSS FULL LENGTH WITH 3/8" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)	
 3314	Maintain Steel Superstructure Components	LF	8	Span 1 Beam 6: HEAVY CORROSION TOP FLANGE AT MID SPAN WITH FLAKING RUST AND SECTION LOSS WITH 8 FT X 3/8" X 5 1/2" REMAINING. (PM)	
 3314	Maintain Steel Superstructure Components	LF	6	Span 1 Beam 7: HEAVY CORROSION WITH FLAKING RUST AND SECTION LOSS AT TOP FLANGE AT MID SPAN 6 FT X 1/4" X 5" REMAINING (PRIORITY MAINTENANCE)	
 3314	Maintain Steel Superstructure Components	LF	40	Span 1 Beam 8: SEVERE CORROSION OF TOP FLANGE FULL LENGTH WITH FLAKING RUST AND SECTION LOSS. ALSO AT BOTTOM FLANGE FOR 10 FT AT MID SPAN AND 10 FT AT END BENT 2. REMAINING TOP FLANGE IS 1/4" X 5" THROUGHOUT. REMAINING BOTTOM FLANGE IS 7/16" X 5 7/8" AT MID SPAN. (PRIORITY MAINTENANCE)	
3314	Maintain Steel Superstructure Components	LF	6	Span 1 Beam 1: HEAVY CORROSION OF TOP FLANGE EXTENDING FROM END BENT 2 WITH FLAKING RUST AND SECTION LOSS WITH 6 FT X 7/16" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)	

Key

 Priority Maintenance Item

 Critical Finding Item

 Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 110145

County BURKE

Date: 10/03/2017

These Repairs Should Be Made Within Twelve Months From Date Of This Inspection

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3314	Maintain Steel Superstructure Components	LF	3	Span 1 Beam 7: HEAVY CORROSION AT BOTTOM FLANGE AT END BENT 2 WITH FLAKING RUST AND SECTION LOSS 3 FT LONG X 7/16" X 5 7/8" REMAINING. (PRIORITY MAINTENANCE)	
3346	Repair / Maintain Timber Wings & Blkhds	SF	2	End Bent 1 Abutment/Backwall : 2 FT X 4" X FULL DEPTH DECAY OF BULKHEAD BETWEEN BEAMS 5 AND 6 (PRIORITY MAINTENANCE)	
3346	Repair / Maintain Timber Wings & Blkhds	SF	2	End Bent 1 Abutment/Backwall : 2 FT X 2" X FULL DEPTH DECAY WITH SOIL SPILL THROUGH BETWEEN PILES 1 AND 2 (PRIORITY MAINTENANCE)	

Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 110145 County BURKE

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3352	Maint Slope Protection	2 SF
Location:		
Slope Bent/Span No. 1 POSTING SIGNS		
Priority Level	Status	
Critical Finding	Division Maintenance Work Completed	
Submitted Date:	Submitted By:	Assisted By:
10/04/2017	GREG COLS	ALLYSON ORR
Details		
POSTING SIGNS ARE MISSING. BRIDGE SHOULD BE POSTED SV 19 TONS TTST 24 TONS.		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	40 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
10/04/2017	GREG COLS	
Details		
Span 1 Beam 3: HEAVY CORROSION OF TOP FLANGE FULL LENGTH WITH FLAKING RUST AND SECTION LOSS 3/8" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 110145

County BURKE

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	2 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
10/04/2017	GREG COLS	
Details		
Span 1 Beam 4: HEAVY CORROSION OF BOTTOM FLANGE AT END BENT 2 WITH FLAKING RUST AND SECTION LOSS 2 FT X 3/8" X 5 7/8" REMAINING. (PM)		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	38 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
10/04/2017	GREG COLS	
Details		
Span 1 Beam 4: HEAVY CORROSION OF TOP FLANGE WITH FLAKING RUST AND SECTION LOSS FULL LENGTH WITH 3/8" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 110145

County BURKE

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	8 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
10/04/2017	GREG COLS	
Details		
Span 1 Beam 6: HEAVY CORROSION TOP FLANGE AT MID SPAN WITH FLAKING RUST AND SECTION LOSS WITH 8 FT X 3/8" X 5 1/2" REMAINING. (PM)		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	6 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
10/04/2017	GREG COLS	
Details		
Span 1 Beam 7: HEAVY CORROSION WITH FLAKING RUST AND SECTION LOSS AT TOP FLANGE AT MID SPAN 6 FT X 1/4" X 5" REMAINING (PRIORITY MAINTENANCE)		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 110145

County BURKE

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	40 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
10/04/2017	GREG COLS	
Details		
Span 1 Beam 8: SEVERE CORROSION OF TOP FLANGE FULL LENGTH WITH FLAKING RUST AND SECTION LOSS. ALSO AT BOTTOM FLANGE FOR 10 FT AT MID SPAN AND 10 FT AT END BENT 2. REMAINING TOP FLANGE IS 1/4" X 5" THROUGHOUT. REMAINING BOTTOM FLANGE IS 7/16" X 5 7/8" AT MID SPAN. (PRIORITY MAINTENANCE)		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	6 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Recommended	Routine Maintenance	
Submitted Date:	Submitted By:	Assisted By:
10/04/2017	GREG COLS	
Details		
Span 1 Beam 1: HEAVY CORROSION OF TOP FLANGE EXTENDING FROM END BENT 2 WITH FLAKING RUST AND SECTION LOSS WITH 6 FT X 7/16" X 5 1/2" REMAINING (PRIORITY MAINTENANCE)		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 110145

County BURKE

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	3 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Recommended	Routine Maintenance	
Submitted Date:	Submitted By:	Assisted By:
10/04/2017	GREG COLS	
Details		
Span 1 Beam 7: HEAVY CORROSION AT BOTTOM FLANGE AT END BENT 2 WITH FLAKING RUST AND SECTION LOSS 3 FT LONG X 7/16" X 5 7/8" REMAINING. (PRIORITY MAINTENANCE)		

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	2 SF
Location:		
Bent/Span No.		
Priority Level	Status	
Recommended	Routine Maintenance	
Submitted Date:	Submitted By:	Assisted By:
10/04/2017	GREG COLS	
Details		
End Bent 1 Abutment/Backwall : 2 FT X 4" X FULL DEPTH DECAY OF BULKHEAD BETWEEN BEAMS 5 AND 6 (PRIORITY MAINTENANCE)		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 110145 County BURKE

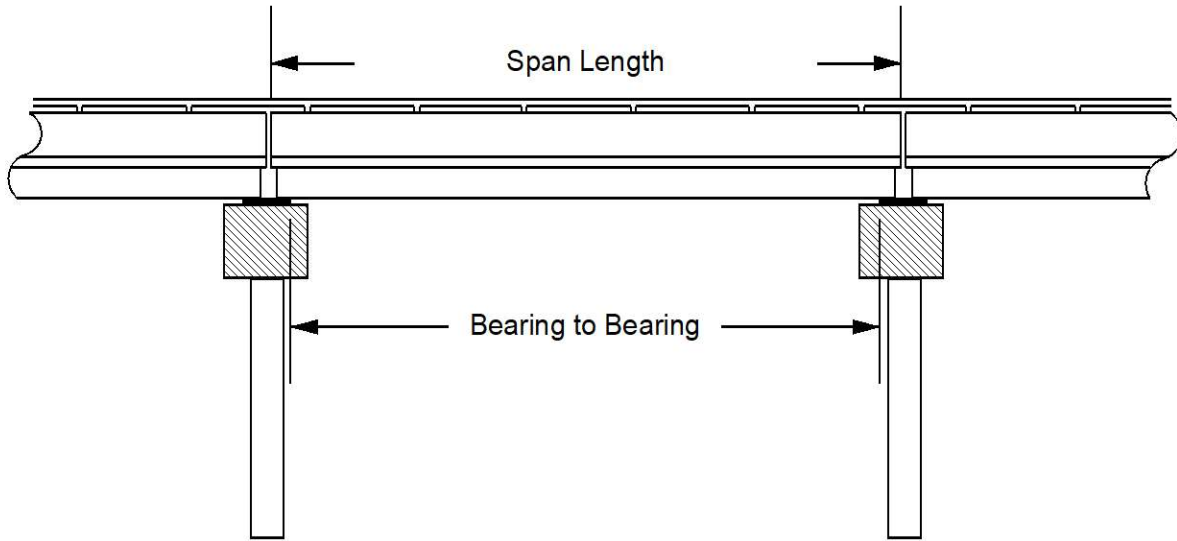
THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	2 SF
Location:		
Bent/Span No.		
Priority Level	Status	
Recommended	Routine Maintenance	
Submitted Date:	Submitted By:	Assisted By:
10/04/2017	GREG COLS	
Details		
End Bent 1 Abutment/Backwall : 2 FT X 2" X FULL DEPTH DECAY WITH SOIL SPILL THROUGH BETWEEN PILES 1 AND 2 (PRIORITY MAINTENANCE)		

Structure Data Worksheet

Spans

County: BURKE Structure No: 110145 Date: 10/03/2017 Inspected By: GRC



Span No	Span Length	Bearing to Bearing	Comments
1	40.500'	39.167'	NBIS=38.333'

Bridge Inspection Field Sketch



MEASUREMENTS TAKEN AT 4 FT NORTH OF ABUTMENT 2

Roadway	15.5 ft Wide	2 Paved Lanes	Looking North
Left Shoulder	2 ft Wide		2ft Unpaved
Right Shoulder	3 ft Wide		3 ft Unpaved
Left Guardrail	2 ft from road		
Right Guardrail	3 ft from road		

MODIFIED BY GRC / AKO 10/3/2017

Title

APPROACH

Description

APPROACH RDWY.

Bridge No: 110145

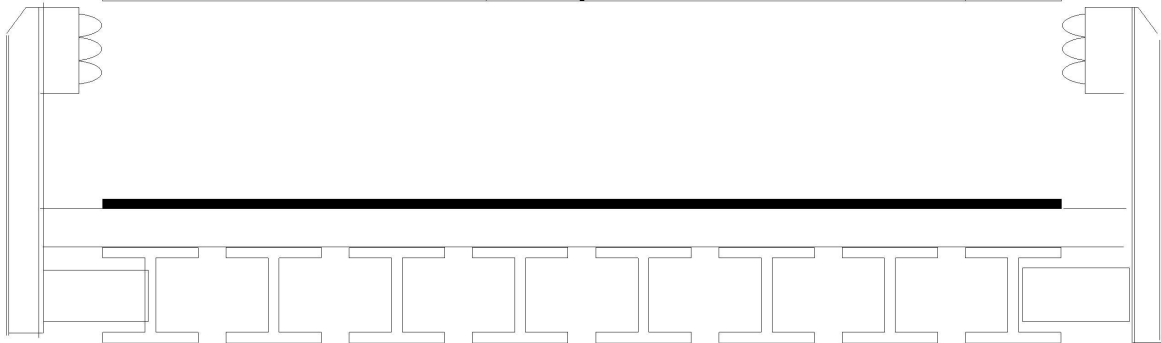
Drawn By: DJA

Date: 09/19/07

File Name: S0146007782

Bridge Inspection Field Sketch

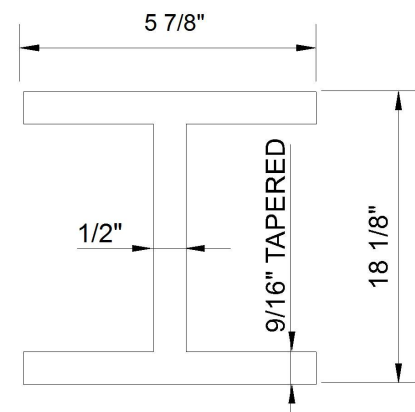
Deck Width/Out to Out	19.833 ft	Wearing Surface	0.25ft
Between Rails	18.917ft	Median Width	
Curb Height		Median Height	
Top Rail to Deck/Wearing Surface	2.792ft	Left Guardrail Width	
Clear Roadway	18.917ft	Right Guardrail Width	
Left Bridge Rail	Type 25	Right Bridge Rail	Type 25



Measurements for Span #	1		
Deck Thickness	0.333	Left Overhang	1.417
Top of Rail to Bottom of Beam	5.167	Right Overhang	1.417

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	2.250ft	
2	Steel I Beam	2.500ft	
3	Steel I Beam	2.500ft	
4	Steel I Beam	2.500ft	
5	Steel I Beam	2.500ft	
6	Steel I Beam	2.500ft	
7	Steel I Beam	2.250ft	
8	Steel I Beam		

NOTE: EXTERIOR BAYS HAVE 3" X 12" CHANNEL DIAPHRAGMS AT RAIL POST CONNECTIONS



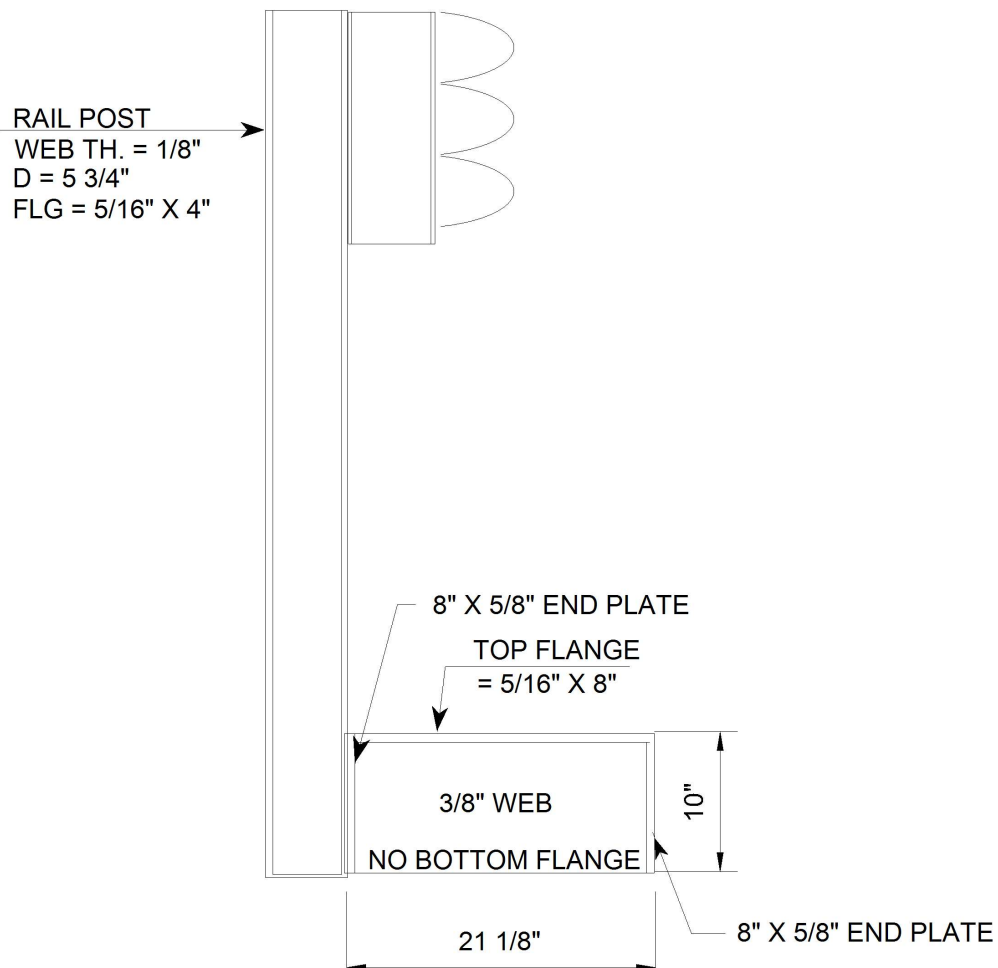
MODIFIED BY GRC / AKO 10/3/2017 - CHANGED DECK THICKNESS

BEAM SIZE

Title		Description	
CROSS SECTION THRU DECK		SUPERSTRUCTURE DETAILS	
Bridge No: 110145	Drawn By: DJA	Date: 09/19/07	File Name: S0146007783

Bridge Inspection Field Sketch

RAIL POSTS AT 6'-8" AVG. CENTERS
(TOTAL OF 6 POSTS EACH SIDE)



RE-DRAWN BY GRC / AKO 10/3/2017

Title

RAIL POST & BLOCK SKETCH

Description

DETAILS OF TYP. RAIL POST & BLOCK

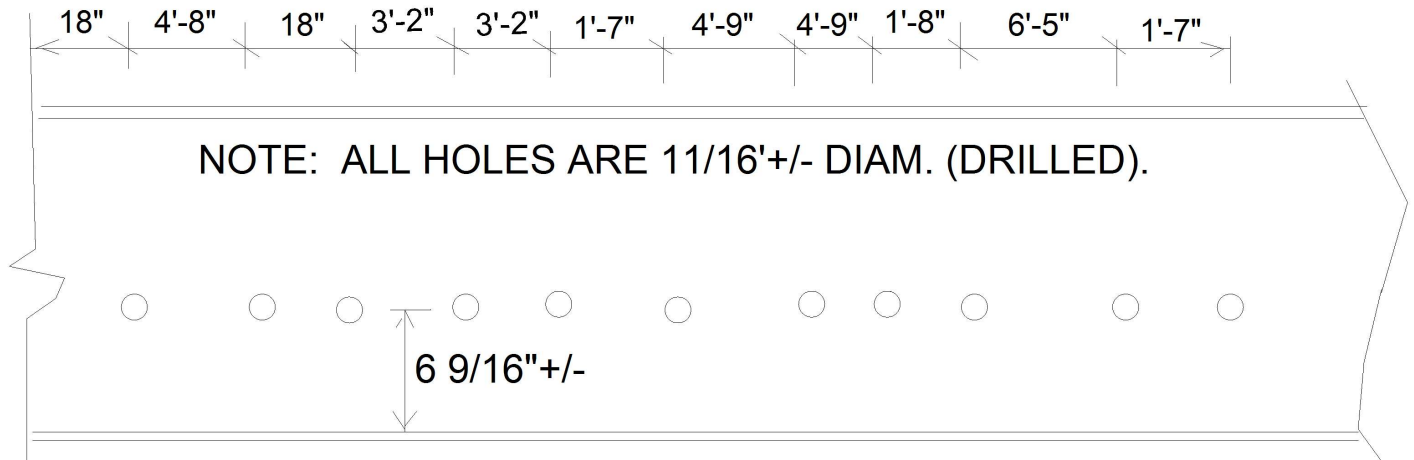
Bridge No: 110145

Drawn By: DJA

Date: 09/19/07

File Name: S0146007784

Bridge Inspection Field Sketch



C/L BRG. ON
END BT. #2

BEAMS 1 AND 8

NOTE: BEAMS #2 - #7 HAVE 3/4" DIAMETER HOLES IN THE WEB AT MID SPAN

MODIFIED BY GRC / AKO 10/3/2017 - ADDED INFORMATION FOR OTHER BEAMS

Title

HOLES IN BEAM WEBS

Description

LOCATIONS & DIMENSIONS OF HOLES IN WEBS

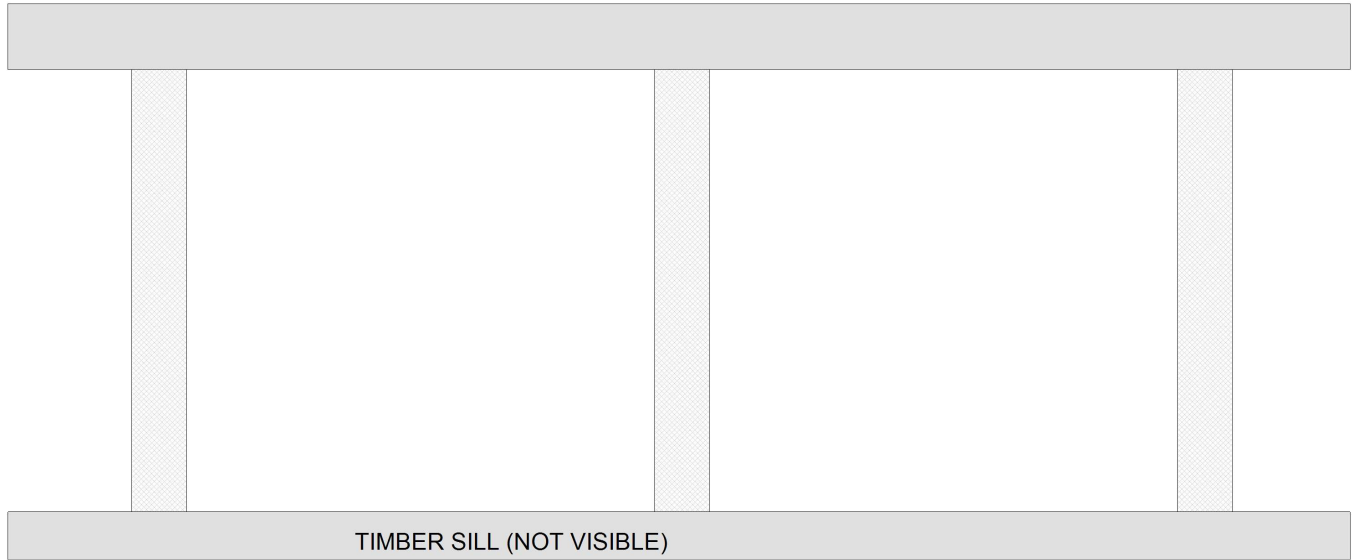
Bridge No: 110145

Drawn By: DJA

Date: 09/19/07

File Name: S0146007785

Bridge Inspection Field Sketch



Cap Information			Material Timber							
Length 20 ft.	Width 0.823 ft.	Height 0.979 ft.	Left Overhang 2.25 ft.	Right Overhang 2.167 ft.	Left Beam to End of Cap. 1.500 ft.	Right Beam to End of Cap. 1.500 ft.				
Subcap Information			Material							
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.					
Sill Information			Material							
Length	Width	Height								
Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1	Timber	7.792 ft.	0.813 ft.	0.813 ft.		Vertical	No	No	No	No
2	Timber	7.792 ft.	0.813 ft.	0.813 ft.		Vertical	No	No	No	No
3	Timber		0.813 ft.	0.813 ft.		Vertical	No	No	No	No
Bent/Abutment #: 1			Similar Bents:							

NOTE: 3' X 12" BRG. CHANNEL ON CAP (5/16" FLG. / TOE & 1/4" WEB)

MODIFIED BY GRC / AKO 10/3/2017 - RE-GENERATED WITH NEWEST WIZARD

Title ABUTMENT #1		Description SUBSTRUCTURE DETAILS	
Bridge No: 110145	Drawn By: DJA	Date: 09/19/07	File Name: S0146007786

Bridge Inspection Field Sketch



Cap Information			Material Timber							
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.				
18.583 ft.	0.792 ft.	1.01 ft.	1.5 ft.	1.5 ft.	.792 ft.	.792 ft.				
Subcap Information			Material							
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.					
Sill Information			Material							
Length	Width	Height								
Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1	Timber	7.792 ft.	0.813 ft.			Vertical	Yes	No	No	No
2	Timber	7.792 ft.	0.813 ft.			Vertical	Yes	No	No	No
3	Timber		0.813 ft.			Vertical	Yes	No	No	No
Bent/Abutment #: 2 Similar Bents:										

NOTE: 3" X 12' BRG. CHANNEL ON CAP (5/16" FLG. / TOE & 1/4' WEB)

MODIFIED BY GRC / AKO 10/3/2017 - RE-GENERATED WITH NEW WIZARD. UPDATED BEAM TO END OF CAP DIMENSIONS. REMOVED SILL. PILES ARE DRIVEN, ACCORDING TO SCOUR REPORT FROM 2010.

Title		Description	
ABUTMENT #2		SUBSTRUCTURE DETAILS	
Bridge No: 110145	Drawn By: DJA	Date: 09/19/07	File Name: S0146007787