NC DEPARTMENT OF TRANSPORTATION



DIVISION OF HIGHWAYS STRUCTURE MANAGEMENT UNIT

Structure Safety Report

Supplemental Element Inspection

INSPECTION DATE: 01/17/2019

| DIVISION: 13 | COUNTY: BUNCOMBE | STRUCTUR | RE NUMBER: 100382 | FREQUENCY: | None |
|-------------------|---------------------------|-----------------|----------------------|-------------------|------------|
| FACILITY CARRIED | US25,US70 | | | | |
| LOCATION: .4 MI.S | .JCT.SR1727 | | | | |
| FEATURE INTERSE | CTED: US19,US23,BYP | | | | |
| LATITUDE: 35° 42 | ' 16.86" | LONGITUDE: 8 | 2° 34' 21.06" | | |
| SUPERSTRUCTURE | REINFORCED CONC. FL | OOR ON I-BEAMS(| WIDENED); (LATEX M | OD. CONC. OVERLAY | <i>(</i>) |
| SUBSTRUCTURE: E | E.BTS:RC CAPS/H-PILES;INT | .BTS:RC POST&BE | AM/PILE FTGS. | | |
| SPANS: 4 SPAN | S. SEE SPAN PROFILE SHE | ET FOR SPAN DET | AILS | | |
| FRACTURE CR | | SHORING SC | OUR CRITICAL | SCOUR PLAN OF | ACTION |
| NBI GRADES: | DECK 7 SUPERSTR | RUCTURE 6 S | | CULVERT N | |
| POSTED SV: Not | Posted | | POSTED TTST: Not Pos | sted | |
| | | | | | |

OTHER SIGNS PRESENT:



LOOKING WEST

| INSPECTED BY ME RENFRO | SIGNATURE | Meph | ASSISTED BY | BA WILCOX |
|---------------------------|-----------|------|-------------|-----------|
|---------------------------|-----------|------|-------------|-----------|

11894060 13B.101111 WEIGHT LIMIT

DELINEATORS

Number Required

0

0

0

0

0

S-N

| Span 2 | | Beam 9 | | | | | | |
|--------------------------|--|---------------------------------|--------------------|------------------|-----------------|-----------------|--------------|-------------|
| Plate Girc | der | | | | | | | |
| Element Number 107 | Steel Or | Element Name pen Girder/Beam | Total Qty 59 | CS1 Qty 53 | CS2 Qty 6 | CS3 Qty 0 | CS4 Qty | |
| 515 | ' | otective Coating | 0 | 0 | 0 | 0 | - | Square Feet |
| Element Number [| Defect Type | Defect Des | cription | | CS | CS Qty | Maint Qty | |
| 107 Corros | 07 Corrosion PREVIOUSLY NOTED 1/16" - 1/8" PITTING ON THE WEB AND FLANGES AT BEARING ON BENTS 1 AND 2 HAS BEEN CLEANED AND PAINTED OVER. | | | | 2 | 6 | | Feet |

General Comments

| Span | 2 | | Beam 10 | | | | | | |
|-------------------|--------|--|---|---|---------------|------------|------------|--------------|------------|
| Plate | Girder | | | | | | | | |
| Elem Numl | •••• | Element Name | | Total Qty | CS1 Qty | CS2 Qty | CS3 Qty | CS4 Qty | |
| 107 | | Steel Open Girder/Beam | 59 | 1 | 14 | 29 | 15 F | eet | |
| 515 | | Steel Protective Coating 591 | | | 591 | 0 | 0 | 0 S | quare Feet |
| Element Number | Defect | Туре | Defect Descriptio | n | | CS | CS Qty | Maint Qty | |
| 107 | Damage | IMPACT DAMAGE 1 VERTICAL DISTOR HORIZONTAL DEFL TO 20" TEAR IN WE DIAPHRAGM AND E | TION UP TO 2.5" IN ECTION UP TO 1", ELD BETWEEN INTE | (3) LOCATION AND CAUSIN ERMEDIATE | , | 4 | 15 | 15 | Feet |
| 107 | Damage | BEAM 10 BOWED L BOWED UPWARD A FEET, AT INDENTIO INDENTION 3 FOR | AT INDENTION 1 FO ON 2 FOR A LENGT | OR A LENGTH H OF 18", ANI | OF 2 | 3 | 6 | 6 | Feet |
| 107 | Damage | BEAM 10 IS OUT O FEET. THE BEAM IS PLUMB 1" | | - | | 3 | 20 | 20 | Feet |
| 107 | Damage | THREE INDENTION INDENTION 1 IS 4" MEASURED 17' FR 3" LONG X 1" WIDE BENT 2. INDENTIOI 26'4" FROM INTERI | LONG X 5" WIDE IN OM INTERIOR BEN MEASURED 23'2" F N 3 IS 3" LONG X 1" | I BEAM 10 T 2. INDENTIC FROM INTERI | ON 2 IS OR | 3 | 3 | 3 | Feet |

2

2

2

6

3

5

Feet

3 Feet

5 Feet

PREVIOUSLY NOTED 1/16" - 1/8" PITTING ON THE WEB

3' OF IMPACT SCRAPES TO UNDERSIDE OF BOTTOM

20' FROM INERIOR BENT 2 FOR A LENGTH OF 6". SCATTERED SCRAPES ON BOTTOM FLANGE OF BEAM 10 MEASURED 28' FROM INTERIOR BENT 2 AND MEASURED

CLEANED AND PAINTED OVER.

FLANGE, AT 1/3 POINT.

30' FROM INTERIOR BENT 2

AND FLANGES AT BEARING ON BENTS 1 AND 2 HAS BEEN

SCRAPES ON BOTTOM FLANGE OF BEAM 10. MEASURED

General Comments

Corrosion

Damage

Damage

107

107

107

| Span 2 | | Wearing Surface | | | | | | |
|-------------------|-----------------|--------------------|--------------|------------|------------|------------|--------------|-------------|
| Asphalt | Wearing Surface | | | | | | | |
| Element Number | Element Name | 9 | Total Qty | CS1 Qty | CS2 Qty | CS3 Qty | CS4 Qty | |
| 510 | Wearing Surface | | 4,081 | 3,981 | 100 | 0 | 0 | Square Feet |
| Element Number | Defect Type | Defect Description | | | CS | CS Qty | Maint Qty | |

Date: 01/17/2019

Condition Photos



DIAPHRAGM 3 BAY 9 IN SPAN 2 IS CRACKED AND SEPERATED FROM BEAM 10. THE CRACK IS A TOTAL LENGTH OF 20" FROM THE BOTTOM OF THE DIAPHRAGM.



DIAPHRAGM 3 BAY 9 IS OUT OF PLUMB SOUTHWARD FOR 1"

11894060 13B.101111

Date: 01/17/2019



DIAPHRAGM 4 BAY 9 IN SPAN 2 IS CRACKED AND SEPERATED FROM BEAM 10. THE CRACK IS A TOTAL LENGTH OF 8" FROM THE BOTTOM OF THE DIAPHRAGM.



DIAPHRAGM 4 BAY 9 IS OUT OF PLUMB SOUTHWARD FOR 3/4"

Date: 01/17/2019

Condition Photos



OVERVIEW OF NDENTION AT POINT OF IMPACT FOR BEAM 10. INDENTION IS 4" LONG X 5" WIDE IN BEAM 10 MEASURED 17' FROM INTERIOR BENT 2



CLOSE UP OF NDENTION AT POINT OF IMPACT FOR BEAM 10. INDENTION IS 4" LONG X 5" WIDE IN BEAM 10 MEASURED 17' FROM INTERIOR BENT 2

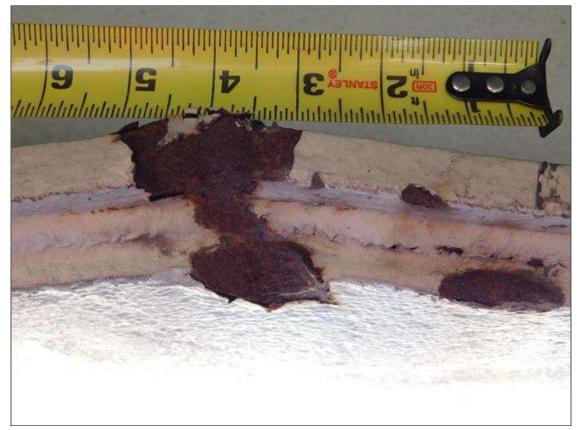
11894060 13B.101111

Buncombe and Burke Counties

Date: 01/17/2019



SCRAPES ON BOTTOM FLANGE OF BEAM 10 FOR A TOTAL LENGTH OF 6". MEASURED 20' OUT FROM INTERIOR BENT 2



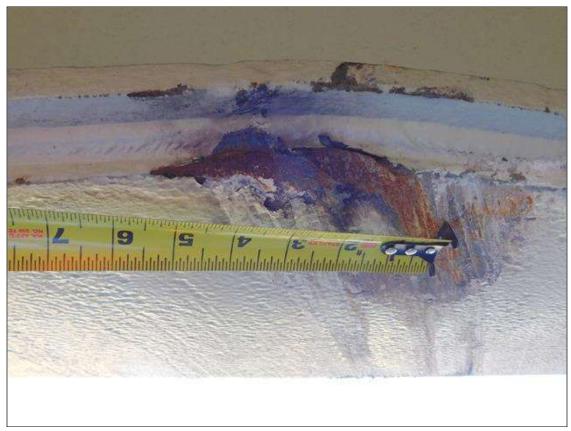
CLOSE UP OF INDENTION AT POINT OF IMPACT FOR BEAM 10. INDENTION IS 3" LONG X 1" WIDE MEASURED 23'2" FROM INTERIOR BENT 2

Date: 01/17/2019

Condition Photos



OVERVIEW OF INDENTION AT POINT OF IMPACT FOR BEAM 10. INDENTION IS 3" LONG X 1" WIDE MEASURED 23'2" FROM INTERIOR BENT 2



CLOSE UP OF INDENTION AT POINT OF IMPACT FOR BEAM 10. INDENTION IS 3" LONG X 1" WIDE MEASURED 26'4" FROM INTERIOR BENT 2.

11894060 13B.101111

Date: 01/17/2019



OVERVIEW OF INDENTION AT POINT OF IMPACT FOR BEAM 10. INDENTION IS 3" LONG X 1" WIDE MEASURED 26'4" FROM INTERIOR BENT 2.



SCATTERED SCRAPES ON BOTTOM FLANGE OF BEAM 10. MEASURED 28' FROM INTERIOR BENT 2

Date: 01/17/2019

Condition Photos



SCATTERED SCRAPES ON BOTTOM FLANGE OF BEAM 10. MEASURED 30' FROM INTERIOR BENT 2



BEAM 10 IS OUT OF PLUMB WESTWARD FOR 1" FOR A TOTAL LENGTH OF 20 FEET

Structure: 100382

County: BUNCOMBE

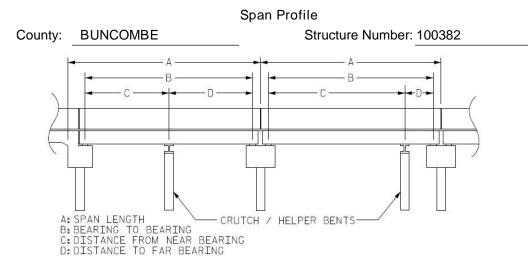
Date: 01/17/2019

Structure Photos



LOOKING WEST

Structure Data Worksheet



| Span Number | Span Length | Bearing to Bearing | Crutch/ Helper Bent | Distance to Near Bearing | Distance to Far Bearing |
|----------------|----------------|-----------------------|------------------------|-----------------------------|----------------------------|
| 1 | 51.730 | 50.000 | | | |
| 2 | 58.940 | 57.940 | | | |
| 3 | 58.667 | 57.667 | | | |
| 4 | 58.430 | 56.667 | | | |



NC DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

ATTENTION: IMPACT DAMAGE REPORT ON SPAN 3/ RATINGS FOR SPAN 3 ONLY/REFER TO SPAN 2 BEAMS ARE CONTINUOUS/ PRIORITY MAINTENANCE REQUESTED X 2

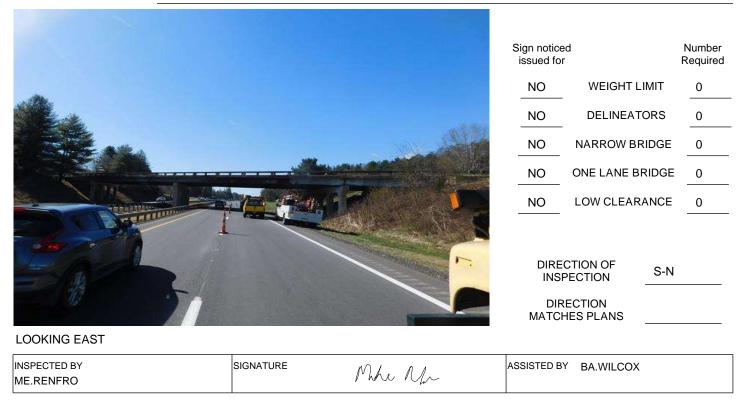
Structure Safety Report

Supplemental Element Inspection

INSPECTION DATE: 03/05/2019

| DIVISION: 13 C | OUNTY: BUNCOMBE | STRUCTURE NUMBER: 1004 | FREQUENCY: | None |
|----------------------------|---------------------------|----------------------------|---------------|----------|
| FACILITY CARRIED: | SR2207 | | MILE POST: | |
| LOCATION: .1 MI.N.J | CT.SR2135 | | | |
| FEATURE INTERSECT | ED: I-26 | | | |
| LATITUDE: <u>35° 43' 3</u> | 5.23" | LONGITUDE: 82° 33' 18.98" | | |
| SUPERSTRUCTURE: | RC.FL.ON CONT.I-BMS&NON | I.CONT.I-BMS | | |
| SUBSTRUCTURE: E.E | BTS:RC CAPS/H-PILES;BTS1& | 2:RCP&BBT3:RCP&B/PILE FTG. | | |
| SPANS: 4 SPANS. | SEE SPAN PROFILE SHEET F | OR SPAN DETAILS | | |
| FRACTURE CRIT | | | SCOUR PLAN OF | - ACTION |
| NBI GRADES: | DECK 6 SUPERSTRUCT | | 6 CULVERT N | |
| POSTED SV: Not Po | sted Not Posted | POSTED TTST: No | ot Posted Not | Posted |
| | | | | |

OTHER SIGNS PRESENT: NONE



11894060 13B.101111

Buncombe and Burke Counties

515 Effectiveness (Steel Protective Coatings)

LONG. CONFIRMED BY SPECIAL INSPECTION ON 3/5/19LOSS OF PAINT ALLOWING SURFACE CORROSION ON22,000Square FeetTHE BEAM

Protective Coatings) THE BEAM. General Comments

UNABLE TO VERIFY EXTENT OF IMPACT DAMAGE IN SPAN 3 DUE TO LACK OF TRAFFIC CONTROL.

| Spa | in 2 | Plate Girder 3 | | | | | | |
|-----------------|--|---|---------------------|------------------|-------------------|-----------------|-------------------|-------------|
| Plat | e Girder | | | | | | | |
| | ment nber Steel Op | Element Name ben Girder/Beam | Total Qty 197 | CS1 Qty -3 | CS2 Qty 195 | CS3 Qty 0 | CS4 Qty 5 F | eet |
| 515 | Steel Pr | otective Coating | 2,000 | 0 | 1,992 | 0 | 8 S | quare Feet |
| Elemer Numbe | Dofoot Typo | Defect Descript | on | | CS | CS Qty | Maint Qty | |
| 107 | Corrosion | 14" X 10" AREA OF CORROSION WIT WITH UP TO 1/4" DIAMETER HOLES BOTTOM OF WEB IS DISTORTED AN BUCKLE, AT BENT 1. (PM) | THROUGH WEI | В, ́ | 4 | 2 | 2 | Feet |
| 107 | Corrosion | 3' OF CORROSION WITH SECTION L REMAINING ALONG WEST SIDE OF BENT 3. (PM) | , | | 4 | 3 | 3 | Feet |
| 107 | Corrosion | FULL LENGTH FRECKLED RUST ALC FLANGE AND SCATTERED ALONG T | | ОМ | 2 | 194 | | Feet |
| 107 | Damage | INDENTION IN BEAM 3 STARTING A BENT 3. 1" LONG BY 1/4" DEEP | 45' FROM INT | ERIOR | 2 | 1 | | Feet |
| 515 | Effectiveness (Steel Protective Coatings) | LOSS OF PAINT ALLOWING SURFACT SECTION LOSS ON THE BEAM. | E CORROSION | I WITH | 4 | 8 | 8 | Square Feet |
| 515 | Effectiveness (Steel Protective Coatings) | LOSS OF PAINT ALLOWING SURFACT SECTION LOSS ON THE BEAM. | E CORROSION | I WITH | 2 | 1,992 | 1,992 | Square Feet |
| | General Comments | | | | | | | |

Span 2

Plate Girder 4

Plate Girder

| Eleme Numbe | | Element Name | Total | CS1 Qty | CS2 Qty | CS3 | CS4 Qty | |
|---|--------------------------|---|---------|------------|------------|--------------|------------|-------------|
| | | | Qty | Qty | , | Qty | , | |
| 107 | Steel C | Dpen Girder/Beam | 197 | 0 | 195 | 0 | 2 | Feet |
| 515 | Steel Protective Coating | | 2,000 0 | |) 1,996 | 0 | 4 | Square Feet |
| Element Number Defect Type Defect Descriptio | | ect Description | | CS | CS Qty | Maint Qty | | |
| 107 Corrosion | | 18" OF CORROSION WITH SECTION LOSS, 1/2" REMAINING ALONG WEST SIDE OF BOTTOM FLANGE, AT BENT 3, (PM) | | | 4 | 2 | - | 2 Feet |

| | | ALONG WEST SIDE OF BOTTOM FLANGE, AT BENT 3. (PM) | | | | |
|-----|----------------------|---|---|-------|--------------|--------|
| 107 | Corrosion | FULL LENGTH FRECKLED RUST ESPECIALLY ALONG THE | 2 | 195 | Feet | |
| | | BOTTOM FLANGE AND SCATTERED ALONG THE WEB. | | | | |
| 515 | Effectiveness (Steel | LOSS OF PAINT ALLOWING SURFACE CORROSION WITH | 4 | 4 | 4 Square | e Feet |
| | Protective Coatings) | SECTION LOSS ON THE BEAM. | | | | |
| 515 | Effectiveness (Steel | LOSS OF PAINT ALLOWING SURFACE CORROSION ON | 2 | 1,996 | 1,996 Square | e Feet |
| | Protective Coatings) | THE BEAM. | | | | |

General Comments

| Span 2 | | Beam 5 | | | | | | |
|--------------------------|--|--------------------|---------------------|-----------------|-------------------|-----------------|-----------------|-------------|
| Plate Gi | rder | | | | | | | |
| Element Number 107 | Element Name Steel Open Girder/Beam | | Total Qty 197 | CS1 Qty 0 | CS2 Qty 197 | CS3 Qty 0 | CS4 Qty 0 | |
| 515 | Steel Protective Coating | | 2,000 | 0 | 2,000 | 0 | 0 | Square Feet |
| Element Number | Defect Type | Defect Description | | | CS | CS Qty | Maint Qty | |

11894060 13B.101111

| Structure | Number: <u>100407</u> | | | Insp | ection Da | ate: <u>03/05/2019</u> |
|-----------|--|--|---|-------|-----------|------------------------|
| 107 | Corrosion | FULL LENGTH FRECKLED RUST ESPECIALLY ALONG THE BOTTOM FLANGE AND SCATTERED ALONG THE WEB. | 2 | 194 | | Feet |
| 107 | Damage | SPAN 3 BEAM 5 SWEPT EASTWARD 1" FOR A LENGTH OF 5' AT 47' -10" OUT FROM IB 3. CONFIRMED BY SPECIAL INSPECTION ON 3/5/19. | 2 | 1 | 1 | Feet |
| 107 | Damage | IMPACT DAMAGE TO BEAM 5 AT 49.833' FROM IB 3, 2' LONG BY 1/2" HIGH BY 1" DEEP. CONFIRMED BY SPECIAL INSPECTION ON 3/5/19 | 2 | 2 | 2 | Feet |
| 515 | Effectiveness (Steel Protective Coatings) | LOSS OF PAINT ALLOWING SURFACE CORROSION ON THE BEAM. | 2 | 2,000 | 2,000 | Square Feet |
| | General Comments | | | | | |

UNABLE TO VERIFY EXTENT OF IMPACT DAMAGE IN SPAN 3 DUE TO LACK OF TRAFFIC CONTROL.

| Spa | n 2 | Beam 6 | | | | | | |
|-----------------|---|--|--|----------------------------------|-------------------|--------|--------------|-------------|
| Plat | e Girder | | | | | | | |
| | ElementTotalCS1NumberElement NameQtyQty107Steel Open Girder/Beam197-1 | | CS2 Qty 152 | CS3 Qty 46 | CS4 Qty 0 F | Feet | | |
| 515 | Steel | Steel Protective Coating 2,000 47 | | | 1,803 | 0 | 150 \$ | Square Feet |
| Elemen Numbe | Defect Tune | Defect Description | | | | CS Qty | Maint Qty | |
| 107 | Damage | SPAN 3 BOTTOM FLANGE OF BEAM 2" FROM IB 3. 3/4" LONG. CONFIRME INSPECTION ON 3/5/19 | - |) AT 47- | 3 | 1 | 1 | Feet |
| 107 | Damage | SPAN 3 IMPACT DAMAGE TO BOTTO PLATE/INDENTTION, ONE AT 43' FRO DEEP BY 3/8" HIGH. ONE AT 44'-10" F BY 1" DEEP BY 1/2" HIGH. IMPACT DA FLANGE. ONE AT 43'-10" FROM IB 3, BY 1/2" DEEP. ONE AT 44'-10" FROM DEEP BY 1" HIGH. CONFIRMED BY S ON 3/5/19 | 0M IB 3, 11" LON ROM IB 3, 3'-8" AMAGE TO BOT 4" LONG BY 1/2 IB 3, 3'-7"' LONG | LONG TOM " HIGH G BY 1" | 3 | 9 | 9 | Feet |
| 107 | Damage | BEAM SWEPT EASTWARD 1.5" FOR / 29-6" OUT FROM INTERIOR BENT 3. (SPECIAL INPSECTION ON 3/5/19 | | | 3 | 35 | 35 | Feet |
| 107 | Damage | SPAN 3 CRACK IN BOTTOM PLATE O IB 3, 3/4" LONG. CRACK IN BOTTOM I 47-5"FROM IB 3, 1" LONG. CONFIRME INSPECTION ON 3/5/19 | FLANGE OF BE | - | 3 | 1 | 1 | Feet |
| 107 | Corrosion | TOP OF THE EXTERIOR BOTTOM FL/ CORROSION WITH 1/16" PITTING FO | | - | 2 | 151 | | Feet |
| 107 | Damage | SPAN 3 INDENTION IN BEAM 6 STARTING AT 44' 4" FROM INTERIOR BENT 3. 1" LONG BY 1/4"" DEEP. SCRAPE ON WEB IN BEAM 6 AT 45' FROM INTERIOR BENT 3. 20" LONG WITH 1/4" DEEP INDENTION | | | 2 | 1 | | Feet |
| 515 | Effectiveness (Stee Protective Coatings | | E CORROSION | WITH | 4 | 150 | 151 | Square Feet |
| 515 | Effectiveness (Stee Protective Coatings | | E CORROSION | ON | 2 | 1,803 | 1,803 | Square Feet |
| | General Comments | | | | | | | |
| | | DIEV EVTENT OF IMPACT DAMAGE IN SI | | | | | N | |

UNABLE TO VERIFY EXTENT OF IMPACT DAMAGE IN SPAN 3 DUE TO LACK OF TRAFFIC CONTROL.

| Span 2 | | Left Bridge I | Rail | | | | | |
|--------------------------|----------------------|---|--------------------|-----------------|-----------------|------------------|----------------------|--|
| Concret | e Railing | | | | | | | |
| Element Number 331 | Reinfor | Element Name ced Concrete Bridge Railing | Total Qty 99 | CS1 Qty 0 | CS2 Qty 0 | CS3 Qty 99 | CS4 Qty 0 Feet | |
| Element Number | Defect Type | Defect Descri | ption | | CS | CS Qty | Maint Qty | |
| 331 Crao Othe | cking (RC and er) | C and FULL LENGTH HORIZONTAL CRACK UP TO 1/16" WITH RUST STAINING AND 1/2" DEEP POPOUTS WITH EXPOSED REINFORCING ALONG INSIDE FACE OF BOTTOM OF RAIL. | | 3 | 99 | 99 Fe | eet | |

General Comments

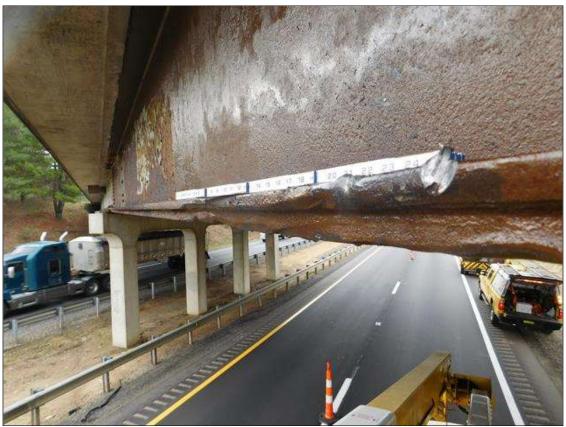
Structure: 100407

County: BUNCOMBE

Date: 03/05/2019



Span 3 : BEAM SWEPT EASTWARD 1.5" FOR A LENGTH OF 35' AT 29-6" OUT FROM INTERIOR BENT 3. CONFIRMED BY SPECIAL INPSECTION ON 3/5/19



Span 3 : PREVIOUS IMPACT DAMAGE TO BEAM 6



Span 3 : INDENTION IN BEAM 6 STARTING AT 44' 4" FROM INTERIOR BENT 3. 1" LONG BY 1/4"" DEEP



Span 3 : PREVIOUS IMPACT DAMAGE TO BEAM 5 AT 49.833' FROM IB 3, 2' LONG BY 1/2" HIGH BY 1" DEEP. CONFIRMED BY SPECIAL INSPECTION ON 3/5/19

Date: 03/05/2019



Span 3 : BEAM 5 SWEPT EASTWARD 1" FOR A LENGTH OF 5' AT 47' -10" OUT FROM IB 3. CONFIRMED BY SPECIAL INSPECTION ON 3/5/19.



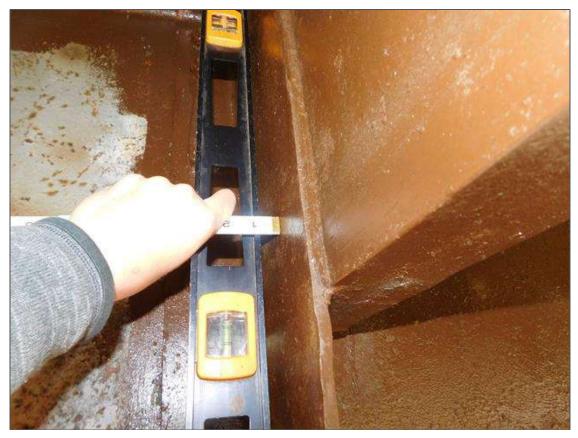
Span 3 : INDENTION IN BEAM 3 STARTING AT 45' FROM INTERIOR BENT 3. 1" LONG BY 1/4" DEEP

Date: 03/05/2019

Condition Photos



DIAPHRAGM 4 BAY 4 SWEPT NORTHWARD 1/4"



PREVIOUS IMPACT DAMAGE TO DIAPHRAGM 4 BAY 5. SWPET NORTHWARD 1/2"

Structure: 100407

County: BUNCOMBE

Date: 03/05/2019

Structure Photos



LOOKING EAST



NC DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS STRUCTURE MANAGEMENT UNIT

Structure Safety Report

Supplemental Element Inspection

INSPECTION DATE: 03/20/2019

| DIVISION: 13 | COUNTY: BUNCOMBE | STRUCTURE NUMBER: 100412 | FREQUENCY: None | |
|--------------------|------------------------------|-----------------------------|----------------------|--|
| FACILITY CARRIED: | US19,23NBL | US19,23NBL (FUTURE 26 (E/W) | | |
| LOCATION: 1.5 MI.I | N.JCT.SR2137 | | | |
| FEATURE INTERSEC | CTED: NC197 | | | |
| LATITUDE: 35° 45 | 31.58" | DNGITUDE: 82° 32' 35.69" | | |
| SUPERSTRUCTURE | REINFORCED CONCRETE FLO | DOR ON CONT.I-BEAMS | | |
| SUBSTRUCTURE: E | | RCP&B/PILE FOOTING | | |
| | S. SEE SPAN PROFILE SHEET FO | R SPAN DETAILS | | |
| | | | SCOUR PLAN OF ACTION | |
| NBI GRADES: | DECK 7 SUPERSTRUCT | IRE SUBSTRUCTURE | CULVERT N | |
| POSTED SV: Not F | Posted | POSTED TTST: Not Po | sted | |
| | | | | |

OTHER SIGNS PRESENT: NONE



| | ign notice ssued fo | | • • | lumber equired |
|---|------------------------|-----------------|-----|-------------------|
| | NO | WEIGHT LIMIT | | 0 |
| | NO | DELINEATORS | | 0 |
| _ | NO | NARROW BRIDGE | _ | 0 |
| _ | NO | ONE LANE BRIDGE | _ | 0 |
| _ | NO | LOW CLEARANCE | _ | 0 |

| DIRECTION OF INSPECTION | E-W | |
|----------------------------|-----|--|
| DIRECTION | | |

LOOKING SOUTH

| INSPECTED BY SIGNATURE M.RENFRO | ASSISTED BY bA.WILCOX |
|---------------------------------|-----------------------|
|---------------------------------|-----------------------|

11894060 13B.101111

Element Condition and Maintenance Data

| Structure | Number: <u>100412</u> | | | | | Ins | spection D | 0ate: 03/20/2019 |
|----------------|--------------------------------|--|--|------------|------------|------------|--------------|------------------|
| Spa | an 1 | Deck | | | | | | |
| Rei | inforced Concrete | Deck | | | | | | |
| | ement mber | Element Name | Total Qty | CS1 Qty | CS2 Qty | CS3 Qty | CS4 Qty | |
| 12 | Reinfor | ced Concrete Deck | 1,513 | 741 | 772 | 0 | 0 5 | Square Feet |
| Eleme Numbe | Defect Type | Defect Descri | ption | | CS | CS Qty | Maint Qty | |
| 12 | Cracking (RC and Other) | 120 square feet hairline longitudinal, cracks | 20 square feet hairline longitudinal, transverse and diagonal acks | | 2 | 120 | 120 | Square Feet |
| 12 | Cracking (RC and Other) | 500 square feet hairline longitudinal a bottom of deck | and transverse cra | cks on | 2 | 500 | 500 | Square Feet |
| 12 | Damage | | IMPACT DAMAGE : THERE IS A 7 1/2" LONG X 1" DEEP SPALL ABOVE DIAPHRAGM 2, BAY 1, SPAN 2 . | | 2 | 1 | | Square Feet |
| 12 | Delamination/Spall | (5) up to 9" x 1" x 1" deep spalls at E | ind Bent 1 | | 2 | 1 | 1 | Square Feet |
| 12 | Efflorescence/Rust Staining | TRANSVERSE HAIRLINE CRACKS STAINING. | WITH EFFLORES | CENCE | 2 | 150 | | Square Feet |
| | General Comments | | | | | | | |

Span 1

Beam 1

Plate Girder

| Element | | Total | CS1 | CS2 | CS3 | CS4 |
|---------|--------------------------|-------|-------|-----|-----|---------------|
| Number | Element Name | Qty | Qty | Qty | Qty | Qty |
| 107 | Steel Open Girder/Beam | 147 | 0 | 75 | 72 | 0 Feet |
| 515 | Steel Protective Coating | 1,389 | 1,163 | 81 | 145 | 0 Square Feet |

| Elemen Numbei | Defect Type | Defect Description | CS | CS Qty | Maint Qty | |
|------------------|--|--|----|--------|--------------|-------------|
| 107 | Corrosion | IMPACT DAMAGE : BEAM1 SPAN 2 . BEAM IS DEFLECTED 1'-2" SOUTHWARD . POINT OF IMPACT DAMAGE AT 29'-9" OUT FROM INT. BENT 1 ,1'-0" LONG X 2" HIGH INDINTION WITH A 2" LONG HAIRLINE CRACK BETWEEN THE BOTTOM FLANGE AND COVER PLATE . THERE IS A 1" WIDE X 4" LONG X 1/16" DEEP SCRAPE / INDINTION WEST SIDE OF POINT OF IMPACT. ALSO A 2 1/2" LONG X 3/4" SCRAPE/ INDINTION EAST SIDE OF POINT OF IMPACT. 2" WIDE X 1" HIGH X 1/16" DEEP SCRAPE/INDINTION ON THE WEB AT 2" UP FROM POINT OF IMPACT. SCATTERED SCRAPES AT WEST SIDE OF POINT OF IMPACT. | 3 | 72 | 72 | Feet |
| 107 | Corrosion | 1' surface rust on bottom flange and web in Span 3 at End Bent 2 | 2 | 1 | | Feet |
| 107 | Corrosion | 1' surface rust on bottom flange in Span 1 at End Bent 1 | 2 | 1 | | Feet |
| 107 | Corrosion | CORROSION WITH UP TO 1/16" PITTING ON THE TOP SURFACE OF THE LEFT HALF OF THE BOTTOM FLANGE. | 2 | 73 | | Feet |
| 515 | Effectiveness (Steel Protective Coatings) | PAINT SYSTEM HAS COMPLETELY DETERIORATED, ALLOWING CORROSION WITH UP TO 1/16" PITTING ON THE TOP OF THE LEFT HALF OF THE FLANGE. | 3 | 145 | 145 | Square Feet |
| 515 | Damage | IMPACT DAMAGE : PAINT PEELING OFF DO TO COLLISION DAMAGE | 2 | 30 | | Square Feet |
| 515 | Effectiveness (Steel Protective Coatings) | Substantially effective | 2 | 1 | 1 | Square Feet |
| 515 | Peeling/Bubbling/Crack ing (steel Protective Coatings) General Comments | FINISH COAT PEELED AWAY FROM BEAMS AT END BENTS AND INTERIOR BENTS. | 2 | 50 | 50 | Square Feet |

PREVIOUS INPACT DAMGE 3 INDITIONS UP TO 1" LONG AT 43'-11" OUT FROM INT. BENT 1

Date: 03/20/2019



POINT OF IMPACT 1' LONG X 2" HIGH 29'-9" OUT FROM INT. BENT 1 (P/M)



POINT OF IMPACT 1' LONG X 2" HIGH 29'-9" OUT FROM INT. BENT 1 (P/M)



23

1" WIDE X4" LONG SCRAPE/ INDINTION WEST SIDE OF POINT OF IMPACT



Date: 03/20/2019

Condition Photos



BEAM 1 DEFLECTED 1'-2" SOUTH WARD



SCRAPE IN BOTTOM OF WEB 2" ABOVE POINT OF IMPACT, 2" WIDE X 1" HIGH X 1/16" DEEP



2" WIDE X 1/2" DEEP X 1" LONG INDINTION IN THE BOTTOM COVERPALE AT POINT OF IMPACT.



6" LONG SCRAPE ON BOTTOM OF BEAM AT POINT OF IMPACT

Date: 03/20/2019

Condition Photos



2" LONG HAIRLINE CRACK BETWEEN COVERPLATE AND BOTTOM FLANGE AT POINT OF IMPACT



2 1/2" LONG X 3/4" WIDE SCRAPE/INDINTION EAST SIDE OF POINT OF IMPACT.

Date: 03/20/2019



SCATTERED SCRAPES ON BOTTOM OF BEAM 1



SCATTERED SCRAPES ON BOTTOM OF BEAM 1

Date: 03/20/2019

Condition Photos



DIAPHRAGM 2 BAY 2 BENT AND TWISTED EAST WARD ON THE NORTH SIDE WITH A 1' HIGH X 2" WIDE RIP IN BOTTOM 1"



DIAPHRAGM 2 BAY 2 BENT AND TWISTED EAST WARD ON THE NORTH SIDE WITH A 1' HIGH X 2" WIDE RIP IN BOTTOM 1"

11894060 13B.101111

Date: 03/20/2019



2" LONG CRACK IN TOP OF RIP IN DIAPGRAGM 2 BAY 2



SPALLING IN BOTTOM OF DECK, 7 1/2" LONG X 1 1/2" DEEP ABOVE DIAPHRAGM 2 AT POINT OF IMPACT



DIAPHRAGM 2 BAY 1 BENT EAST WARD FOR 11" NORTH SIDE



DIAPHRAGM 2 BAY 1 SOUTH SIDE BENT WESTWARD UP TO 5"



BEAM 1 SPAN 2 IMPACT DAMAGE

Date: 03/20/2019

Condition Photos



Date: 03/20/2019

Condition Photos



Date: 03/20/2019

Condition Photos





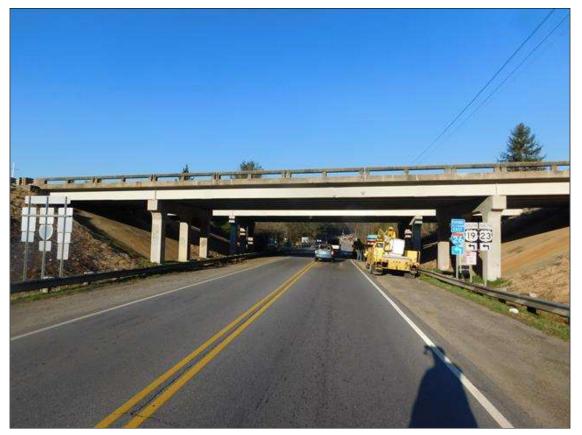
Date: 03/20/2019



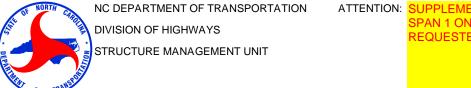
BAY 1 SPAN 2 : DIAPHRAGM 2 BAY 1 SPAN 2 IS BENT AND TWISTED WITH A 1' HIGH X 2" WIDE RIP AT ITS BASE . THERE IS ALSO A 2" LONG CRACK AT THE TOP OF THIS RIP. NORTH SIDE DIAPHRAGM 2 BENT EASTWARD 11". SOUTH SIDE IS BENT WESTWARD UP TO 5". A PRIORITY MAINTENANCE HAS BEE REQUESTED FOR THIS CONDITIONS.

Date: 03/20/2019

Structure Photos



LOOKING SOUTH



Structure Safety Report

Supplemental Element Inspection

INSPECTION DATE: 01/17/2019

| DIVISION: 13 | COUNTY: | BURKE | STRUCT | URE NUMBER: | 110112 | FREQU | JENCY: | None |
|-------------------|------------|------------------------|-----------|---------------|------------|------------|--------|--------|
| FACILITY CARRIED: | SR1142 | | | | | MILE POST: | | 100 |
| LOCATION: .45 MI. | N.JCT.SR1 | 197 | | | | | | |
| FEATURE INTERSEC | CTED: 140 | | | | | | | |
| LATITUDE: 35° 43' | 4.64" | LON | NGITUDE: | 81° 45' 8.86" | | | | |
| SUPERSTRUCTURE | REINFO | DRCED CONCRETE FLOO | OR ON I-B | EAMS | | | | |
| SUBSTRUCTURE: E | .BTS:RC (| CAPS/PPC PILES;INT.BTS | S:RC P&B/ | PPC PILE FTG | iS. | | | |
| SPANS: 4 SPANS | 6. SEE SP/ | AN PROFILE SHEET FOR | R SPAN DE | TAILS | | | | |
| FRACTURE CRI | TICAL | | NG | SCOUR CRITIC | CAL | | LAN OF | ACTION |
| NBI GRADES: | DECK | 6 SUPERSTRUCTUR | E 5 | SUBSTRUCTL | IRE 6 | CULVERT | N | |
| POSTED SV: Not F | Posted | | | POSTED TTS | T: Not Pos | sted | | |
| | | | | | | | | |

OTHER SIGNS PRESENT: NONE



| ign notice issued fo | | | Number Required |
|-------------------------|-------------|-------|--------------------|
| NO | WEIGHT | LIMIT | 0 |
| NO | DELINEATORS | | 0 |
| NO | NARROW B | 0 | |
| NO | ONE LANE E | 0 | |
| NO | LOW CLEA | 0 | |
| | | | |
| DIRE INS | | | |

DIRECTION MATCHES PLANS

LOOKING EAST

| INSPECTED BY SIGNATURE M.L. M.L. M.L. | ASSISTED BY BA.WILCOX |
|---------------------------------------|-----------------------|
|---------------------------------------|-----------------------|

11894060 13B.101111

Buncombe and Burke Counties

Element Condition and Maintenance Data

| | | | Deele | | | | | | |
|--|--|---|---|---|--|---|--|---|---|
| Span 1 | | | Deck | | | | | | |
| Reinforced Co | oncrete I | Deck | | | | | | | |
| Element Number | | Element Name | | Total | CS1 | CS2 | CS3 | CS4 | |
| 12 | Reinforce | ed Concrete Deck | | Qty 1,938 | Qty 438 | Qty 1,500 | Qty 0 | Qty 0 | Square Feet |
| | | | | , | | , | | | - 1 |
| Element Number Defect | t Туре | | Defect Description | | | CS | CS Qty | Maint Qty | |
| 12 Cracking (R Other) | C and | SPAN 1 BOTTOM C | OF DECK HAS SCATTE | RED CRA | CKS | 2 | 1,500 | 1,50 | 0 Square Feet |
| General Com | nments | WITH SOME EFFEC | J VISIBLE. | | | | | | |
| | | | | | | | | | |
| Span 1 | | | Beam 1 | | | | | | |
| Plate Girder | | | | | | | | | |
| Element | | | | Total | CS1 | CS2 | CS3 | CS4 | |
| Number | e | Element Name | | Qty | Qty | Qty | Qty | Qty | |
| 107 | • | en Girder/Beam | | 61 | 31 | 0 | 30 | | Feet |
| 515 | Steel Pro | otective Coating | | 570 | 570 | 0 | 0 | 0 | Square Feet |
| Element Number Defect | t Type | | Defect Description | | | CS | CS Qty | Maint Qty | |
| 107 Damage | | | THE SOUTH MOST 30 | | TED 1" | 3 | 30 | • | 0 Feet |
| | | | TERED SCARPS WITH DUGH OUT A 7' LONG 2 | | | | | | |
| | | AT 12' OUT FROM | END BENT 1 (POINT O | F IMPACT |). THERE | | | | |
| | | | /2" WIDE X 1/16" DEEF AT 12' OUT FROM END | | | | | | |
| | | | | | | | | | |
| General Corr | nments | | | | | | | | |
| General Com | nments | | | | | | | | |
| General Com | nments | | Beam 2 | | | | | | |
| | nments | | Beam 2 | | | | | | |
| Span 1 | nments | | Beam 2 | Total | CS1 | CS2 | CS3 | CS4 | |
| Span 1 Plate Girder Element Number | | Element Name | Beam 2 | Total Qty | CS1 Qty | Qty | Qty | Qty | |
| Span 1 Plate Girder Element Number 107 | Steel Op | Element Name en Girder/Beam | Beam 2 | Total Qty 61 | CS1 Qty 61 | Qty 0 | Qty 0 | Qty 0 | Feet |
| Span 1 Plate Girder Element Number | Steel Op | Element Name | Beam 2 | Total Qty | CS1 Qty | Qty | Qty | Qty 0 | |
| Span 1 Plate Girder Element Number 107 515 Element | Steel Op Steel Pro | Element Name en Girder/Beam | | Total Qty 61 | CS1 Qty 61 | Qty 0 0 | Qty 0 25 | Qty 0 0 Maint | Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect | Steel Op Steel Pro | Element Name en Girder/Beam otective Coating | Defect Description | Total Qty 61 | CS1 Qty 61 | Qty 0 | Qty 0 | Qty 0 0 | Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect | Steel Op Steel Pro | Element Name en Girder/Beam | Defect Description | Total Qty 61 | CS1 Qty 61 | Qty 0 0 CS | Qty 0 25 CS Qty | Qty 0 0 Maint | Feet Square Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect 515 Damage | Steel Op Steel Pro | Element Name en Girder/Beam otective Coating | Defect Description | Total Qty 61 | CS1 Qty 61 | Qty 0 0 CS | Qty 0 25 CS Qty | Qty 0 0 Maint | Feet Square Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect 515 Damage | Steel Op Steel Pro | Element Name en Girder/Beam otective Coating SCATTERED SCRA | Defect Description | Total Qty 61 | CS1 Qty 61 | Qty 0 0 CS | Qty 0 25 CS Qty | Qty 0 0 Maint | Feet Square Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect 515 Damage General Corr | Steel Op Steel Pro t Type | Element Name en Girder/Beam otective Coating SCATTERED SCRA | Defect Description PS ON BEAM 1 | Total Qty 61 | CS1 Qty 61 | Qty 0 0 CS | Qty 0 25 CS Qty | Qty 0 0 Maint | Feet Square Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect 515 Damage General Corr Span 1 | Steel Op Steel Pro t Type | Element Name en Girder/Beam otective Coating SCATTERED SCRA | Defect Description PS ON BEAM 1 | Total Qty 61 | CS1 Qty 61 | Qty 0 0 CS | Qty 0 25 CS Qty | Qty 0 0 Maint | Feet Square Feet Square Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect 515 Damage General Com Span 1 Fixed Bearing Element Number | Steel Op Steel Pro | Element Name ben Girder/Beam otective Coating SCATTERED SCRA | Defect Description PS ON BEAM 1 | Total Qty 61 570 | CS1 Qty 61 545 CS1 Qty | Qty 0 CS 3 CS2 Qty | Qty 0 25 CS Qty 25 CS3 Qty | Qty 0 Maint Qty CS4 Qty | Feet Square Feet Square Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect 515 Damage General Corr Span 1 Fixed Bearing Element Number 313 | Steel Op Steel Pro t Type nments | Element Name en Girder/Beam otective Coating SCATTERED SCRA Element Name earing | Defect Description PS ON BEAM 1 | Total Qty 61 570 Total Qty 1 | CS1 Qty 61 545 CS1 Qty 0 | CS 3 CS 2 CS 2 Qty 1 | Qty 0 25 CS Qty 25 CS 3 Qty 0 | Qty 0 Maint Qty CS4 Qty 0 | Feet Square Feet Square Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect 515 Damage General Com Span 1 Fixed Bearing Element Number | Steel Op Steel Pro t Type nments | Element Name ben Girder/Beam otective Coating SCATTERED SCRA | Defect Description PS ON BEAM 1 | Total Qty 61 570 | CS1 Qty 61 545 CS1 Qty | Qty 0 CS 3 CS2 Qty | Qty 0 25 CS Qty 25 CS3 Qty | Qty 0 Maint Qty CS4 Qty 0 | Feet Square Feet Square Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect 515 Damage General Corr Span 1 Fixed Bearing Element Number 313 515 Element Defect Damage | Steel Op Steel Pro t Type nments Fixed Be Steel Pro | Element Name en Girder/Beam otective Coating SCATTERED SCRA Element Name earing | Defect Description PS ON BEAM 1 Near Bearing | Total Qty 61 570 Total Qty 1 | CS1 Qty 61 545 CS1 Qty 0 | Qty 0 CS 3 CS2 Qty 1 0 | Qty 0 25 CS Qty 25 CS3 Qty 0 1 | Qty 0 0 Maint Qty CS4 Qty 0 0 0 Maint | Feet Square Feet Square Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect 515 Damage General Corr Span 1 Fixed Bearing Element Number 313 515 Element Number Defect | Steel Op Steel Pro t Type nments Fixed Be Steel Pro | Element Name een Girder/Beam otective Coating SCATTERED SCRA Element Name earing otective Coating | Defect Description NPS ON BEAM 1 Near Bearing Defect Description | Total Qty 61 570 Total Qty 1 1 | CS1 Qty 61 545 CS1 Qty 0 0 | CS 3 CS 2 CS 2 Qty 1 | Qty 0 25 CS Qty 25 CS3 Qty 0 | Qty 0 Maint Qty CS4 Qty 0 0 | Feet Square Feet Square Feet Each Square Feet |
| Span 1 Plate Girder Element Number 107 515 Element Number Defect 515 Damage General Corr Span 1 Fixed Bearing Element Number 313 Corrosion | Steel Op Steel Pro t Type mments Fixed Be Steel Pro | Element Name otective Coating SCATTERED SCRA Element Name earing otective Coating | Defect Description PS ON BEAM 1 Near Bearing | Total Qty 61 570 Total Qty 1 1 D SURFAC | CS1 Qty 61 545 CS1 Qty 0 0 0 | Qty 0 CS 3 CS2 Qty 1 0 CS | Qty 0 25 CS Qty 25 CS Qty 0 1 CS Qty | Qty 0 0 Maint Qty 0 0 0 Maint Qty | Feet Square Feet Square Feet |



Span 1 Beam 1: IMPACT DAMAGE - THE SOUTH MOST 30' DEFLECTED 1" EASTWARD . SCATTERED SCARPES WITH 1/6" INDENTIONS THROUGH OUT A 7' LONG X 2'-7" HIGH AREA AT 12' OUT FROM END BENT 1 (POINT OF IMPACT).

Date: 01/17/2019



Span 1 Beam 1: IMPACT DAMAGE - THERE IS A 1-'8" LONG X 1/2" WIDE X 1/16" DEEP SCRAP ON THE BOTTOM FLANGE AT 12' OUT FROM END BENT 1 .



Span 1 Beam 1: IMPACT DAMAGE - THE SOUTH MOST 30' DEFLECTED 1" EASTWARD .

Date: 01/17/2019

Condition Photos



Span 1 Beam 1: IMPACT DAMAGE - THE SOUTH MOST 30' DEFLECTED 1" EASTWARD . SCATTERED SCAREPS WITH 1/6" INDENTIONS THROUGH OUT A 7' LONG X 2'-7" HIGH AREA AT 12' OUT FROM END BENT 1 (POINT OF IMPACT).



Span 1 Beam 1: IMPACT DAMAGE - THE SOUTH MOST 30' DEFLECTED 1" EASTWARD . SCATTERED SCARPES WITH 1/6" INDENTIONS THROUGH OUT A 7' LONG X 2'-7" HIGH AREA AT 12' OUT FROM END BENT 1 (POINT OF IMPACT).



IMPACT DAMAGE - DIAPHRAGM 1 BAY 1 LEFT SIDE THE LOWER 8" OF DIAPHRAGM IS DEFLECTED NORTHWARD UP TO 2"



IMPACT DAMAGE - DIAPHRAGM 1 BAY 1 LEFT SIDE THE LOWER 8" OF DIAPHRAGM DEFLECTED NORTHWARD UP TO 2"

Date: 01/17/2019



End Bent 1 Abutment/Backwall : 1'3" WIDE X 1' HIGH X 2" DEEP SPALL ON THE LEFT SIDE OF BEAM 1, WITH ONE REBAR EXPOSED .

County: BURKE

Date: 01/17/2019

Structure Photos



LOOKING EAST