



## Hamilton County

### Regular Inspection Report

Location: 33-I0075-01.91

Federal ID: 33I00750019

Maintenance Responsibility:

State of Tennessee

Description:

4 Span Bridge

I-75

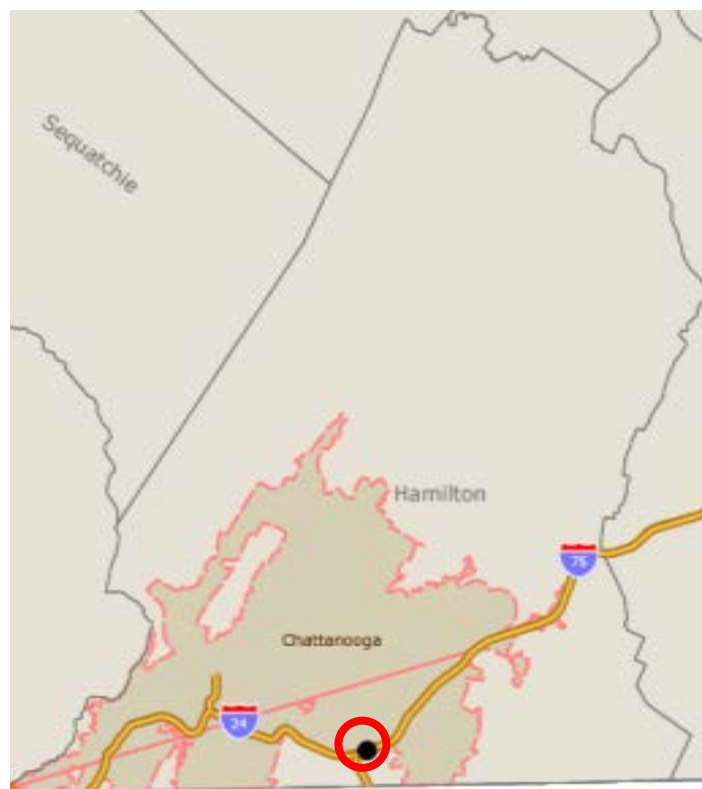
OVER

South Chickamauga Creek

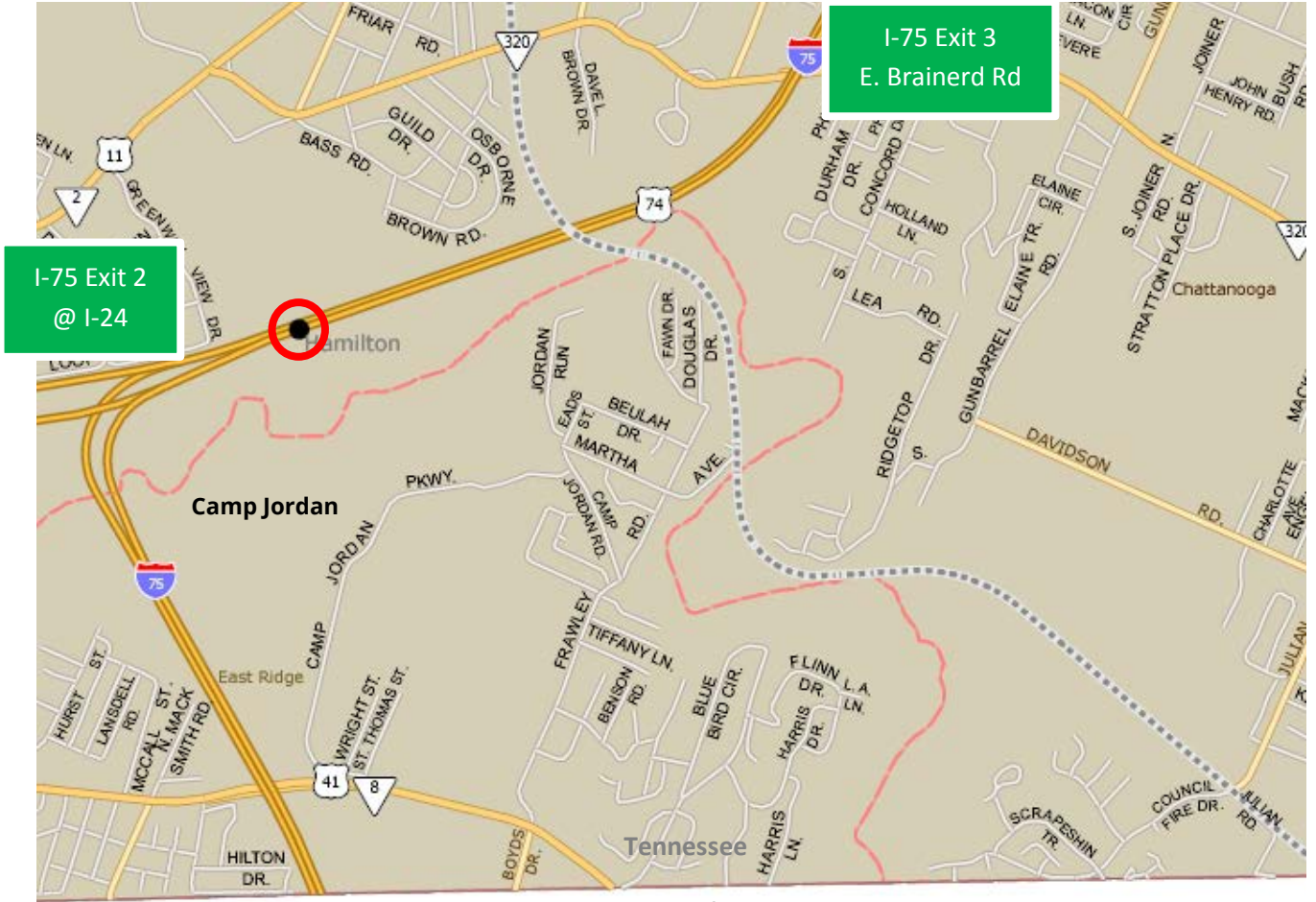
Inspection Date: July 19, 2016

Overall Condition Rating:

**FAIR**





# LOCATION MAP



Georgia



 Direction of Inspection Route     Direction of Flow

**BRIDGE MAINTENANCE RECOMMENDATIONS**



Tennessee Department  
of Transportation

COUNTY: HAMILTON  
 LOCATION: 33-I0075-01.91-  
 CO. SEQ.: 1 SPEC. CASE: 0  
 MILEPOST: 1.92

CROSSING: SOUTH CHICKAMAUGA CREEK  
 FED. BRIDGE NO.: 33I00750019  
 MAINT. DIST.: 33

REPAIR LIST NO.: N  
 DATE ADDED: 08/08/2002  
 REVISED: 07/25/2016

FACILITY CARRIED:	I75	NUMBER OF MAIN SPANS:	4
HIGHWAY SYSTEM:	02-INTERSTATE URBAN	NUMBER OF APPROACH SPANS:	0
BRIDGE WIDTH (CURB TO CURB):	124 FT 4 IN	BRIDGE LENGTH (FT):	266
BRIDGE WIDTH (OUT TO OUT):	129 FT 11 IN	MAXIMUM SPAN LENGTH (FT):	67
APPROACH ROADWAY (W/SHOULDERS):	124 FT 0 IN	SKEW ANGLE (DEGREES):	90
MAINTAINED BY:	STATE HIGHWAY AGENCY		
MAIN SPAN MATERIAL:	PRESTRESSED CONCRETE		
MAIN SPAN DESIGN TYPE:	BOX BEAM OR GIRDERS - MULTIPLE		
APPROACH SPAN MATERIAL:	OTHER OR NOT APPLICABLE		
APPROACH SPAN DESIGN TYPE:	OTHER OR NOT APPLICABLE		
INSPECTION DATE:	07/19/2016	GENERAL CONDITION:	FAIR
EVALUATION DATE:	08/12/2014	STRUCTURALLY DEFICIENT:	NO
PPRM PIN NUMBER:		SUFFICIENCY RATING:	78.0
H TRUCK RATING @ INV.:	20 TONS		

<b>SUGGESTED ROUTINE MAINTENANCE AND COMMENTS</b>
CLEAR DRAINS IN SPAN NO. 4 , RT.
Approach 1 - SBL - Repair potholes
CLEAR APPROACH DRAINS
REPAIR BRIDGERAIL ON RIGHT SIDE OF SPAN NO.2, 3 & 4.

<b>GENERAL COMMENTS:</b>



STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

# Bridge Condition Coding Form

Revised 07/25/2016

Bridge Number:   
(Includes Item 5A)

Feature Intersected:

Evaluation Status:

County:

Route:

Special Case:

County Sequence:

Log Mile:

## CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	CONDITION CODING GUIDELINES (Values for Coding Items 58, 59, 60 and 62)			
90	LAST INSPECTION DATE	<input type="text" value="07/19/2016"/>	N NOT APPLICABLE 9 EXCELLENT CONDITION 8 VERY GOOD CONDITION - NO PROBLEMS NOTED. 7 GOOD CONDITION - SOME MINOR PROBLEMS. 6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS. 5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR. 4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR. 3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOUSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT. 2 CRITICAL CONDITION - ADVANCED DETERIORATION OF PRIMARY STRUCTURAL ELEMENTS. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT OR SCOUR MAY HAVE REMOVED SUBSTRUCTURE SUPPORT. UNLESS CLOSELY MONITORED IT MAY BE NECESSARY TO CLOSE THE BRIDGE UNTIL CORRECTIVE ACTION IS TAKEN. 1 "IMMINENT" FAILURE CONDITION - MAJOR DETERIORATION OR SECTION LOSS PRESENT IN CRITICAL STRUCTURAL COMPONENTS OR OBVIOUS VERTICAL OR HORIZONTAL MOVEMENT AFFECTING STRUCTURAL STABILITY. BRIDGE IS CLOSED TO TRAFFIC BUT CORRECTIVE ACTION MAY PUT IT BACK IN LIGHT SERVICE. 0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.			
	EARLIEST DATE OF NEXT REGULAR INSPECTION	<input type="text" value="05/20/2018"/>				
		<input type="text" value="/ /"/>				
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN.				
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN.				
36	TRAFFIC SAFETY FEATURES					
	Br. Rail	Trans.	Appr. Rail	Terminal	SPEED LIMIT	
	1	0	0	0	55	
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
41	STRC OPEN/CLOSED/POSTED	A				
	A K P	<input type="text"/>				
58	DECK	6				
59	SUPERSTRUCTURE	6				
60	SUBSTRUCTURE	7				
61	CHANL/CHANL PROTECTION	7				
62	CULVERT AND RETAIN WALL	N				
71	WATERWAY ADEQUACY	7				
72	APPROACH RDWY ALIGNMENT	8				
521	OVERALL CONDITION	FAIR				
16	LATITUDE	17 LONGITUDE				
	N 35° .4460'	W 85° 12.1330'				
	<input type="text"/>	<input type="text"/>				
	<input type="text" value="/ /"/>					
	TEAM LEADER SIGNATURE	REVIEW DATE				

# Photographs

Bridge ID#: 33I00750019

Date: 07/19/2016



BRIDGE # - SPAN 1 - BEAM DD



LOOKING AHEAD - NB

# Photographs



LOOKING AHEAD - SB



LOOKING BACK - NB

# Photographs



LOOKING BACK - SB



LEFT SIDEVIEW - OUTLET

# Photographs



UPSTREAM



DOWNSTREAM



# Photographs



**SUPER/SUB STRUCTURE - LEFT**



**SUPER/SUB STRUCTURE - CENTER**

# Photographs



**SUPER/SUB STRUCTURE - RIGHT**



**SPAN 1 - LEFT - PATCHED CRACKS/DELAMS**

# Photographs



APPROACH 1 - NB



APPROACH 1 - SB

# Photographs



APPROACH 1 - SB - POTHOLE



WEARING SURFACE - NB

# Photographs



WEARING SURFACE - SB



TRAFFIC SAFETY FEATURES

# Photographs



APPROACH 2 - NB



APPROACH 2 - SB

# Photographs



SPAN 3 - LEFT - CRACK REPAIRS



SPAN 3 - BEAM U - REBAR SPALL

# Photographs



**SPAN 4 - BEAM A - ABUTMENT 2 - SHEAR CRACK**



**SPAN 4 - BEAM A - ABUTMENT 2 - SHEAR CRACK**



# Photographs



SPAN 4 - BEAM A - MID SPAN - SPALLS



SPAN 4 - BEAM L - REBAR SPALLS

# Photographs



**SPAN 4 - BEAM L - REBAR SPALLS**



**SPAN 4 - RIGHT - DRAIN CLOGGED**

## Photographs



SPAN 4 - RIGHT - BRIDGE RAIL - COLLISION DAMAGE

# BRIDGE INSPECTION REPORT

Page No. \_\_\_\_\_

Form BIR 3.0  
(Rev. 9-22-98)  
DT-0069

Field Report No. 23 Date 7/19/2016  
Previous Report No. 22 Date 7/8/2014  
Plans: DESIGN

Bridge No. 33100750019  
Eleven Digit No.

Bridge Location No. 33 - I0075 - 0191  
Co. Route Log Mile

I75 over SOUTH CHICKAMAUGA CREEK  
Facility Carried by Structure Crossing Structure Name (If Named)  
Year Constructed 1960 ACTUAL County \_\_\_\_\_ Maintenance District 21  
Year Widened 1992 ACTUAL Year Rehabilitated 1992 ACTUAL

## FEATURES

Wearing Surface CONCRETE Depth 8.3 (in.)  
Flared Width NO Median Width OPEN  
Navigational Control NO Bridge Skew 90°  
Structure Type (Main Span) PCBB  
Structure Type (Appr.Spans) NA  
No. Main Spans 4 No. Approach Spans 0  
Maximum Span Length 67.0 (\*\*.\* ft.)  
Total Length 266.0 (\*\*.\* ft.)

## TEAM LEADER

Tays

## INSPECTORS

Haas

## WIDTHS (\*.\* ft.)

Deck Out-to-Out 130.0  
Roadway Curb/Curb NA  
Roadway Rail/Rail 128.0  
Sidewalk Rt. NA Lt. NA  
\*Approach Roadway 2@48  
\*(Does Not Include Shoulders)  
Approach Shoulder Rt. 6.0  
Lt. 12.0

## CLEARANCES

Min. Vertical Clearance over Deck 99-99 (ft.-in.)  
Min. Vertical Under Clearance NA (ft.-in.)  
Min. Lateral Under Clearance Rt. NA (\*.\* ft.)  
Min. Lateral Under Clearance Lt. NA (\*.\* ft.)

FRACTURE CRITICAL: NO  
(If Yes, Include BIR 3.9)

NBIS Bridge Length (<25 ft.) \_\_\_\_\_ (ft.-in.)

## UNDERWATER INSPECTION

To Be Performed By: DOT FIELD TEAM Date \_\_\_\_\_

Change in Structural Condition: NO Major Repairs Made: NO BRIDGE is: OPEN

## COMMENTS:

ACCESS IS APPROVED THROUGH GOLF COURSE MAITENANCE TRAIL.  
2016 - Access - Levee trail behind Walmart

Supervising Bridge Inspector: Tays

BRIDGE RATING: FAIR

**PERFORMANCE EVALUATION**

Time of Day Inspected      AM      Weather Conditions Sunny 80 F  
 Vehicles Observed ALL TYPES

**LIVE LOAD BEHAVIOR**

Substructure	Yes/No	Comments
Horiz./ Vert. Defl.	NO	
Vibration	NO	
Superstructure		
Horiz./ Vert. Defl.	NO	
Vibration	NO	

**APPROACH**

	Rating	Comments
Alignment	GOOD	
Slab	FAIR	<i>NARROW CRACKS, SPALLS, DELAM, SETTLED, PATCHES</i>
Joints	FAIR	<i>MATERIAL LOSS</i>
Pavement	POOR	<i>Approach 1 - Left/Right potholes</i>
Embankment	GOOD	
Drains	FAIR	<i>FILLING W/ DIRT-VEGETATION</i>

**TRAFFIC SAFETY FEATURES**

	Rating	Standard/ SubStandard	Comments
Bridgerailing	POOR	STANDARD	<i>SIGNIFICANT DAMAGE AT RIGHT SIDE</i>
Transitions	FAIR	NONSTANDARD	<i>METAL BLOCKS</i>
Guardrail	FAIR	NONSTANDARD	<i>METAL BLOCKS</i>
Guardrail Terminal	FAIR	NONSTANDARD	<i>&gt; 100' from bridge end</i>

**SIGNING**

	Yes/ No/ Needed	Weight Limit Posted <u>NO</u>
Paddleboards	NO	Gross.....      _____ Tons
Vertical Clearance (<14'-6")	NO	2 Axle.....      _____ Tons
Narrow Bridge Signs	NO	3 or more Axles.. _____ Tons
One Lane Bridge Signs	NO	

Other Signs or Plaques:

Comments Regarding any  
 Problems with Signing:

**DECK**

	Rating	Comments
Wearing Surface	FAIR	NUMEROUS NARROW CRACKS. SPALL.
Deck - Structural Condition	GOOD	HL CRACKS W/ EFF.
Curbs	NONE	
Median	GOOD	CLOSED MEDIAN NON-MOUNTABLE
Sidewalks	NONE	
Parapet	N/A	
Railing	N/A	
Paint	NA	
Drains	GOOD	SPAN 4, RT, CLOSED
Lighting Standards	NONE	
Utilities	NONE	
Joint Leakage	NA	
Expansion Joints	NONE	

**SUPERSTRUCTURE**

Bearing Devices	GOOD	Abutments - None - Integral, Bents - Fixed
Girders or Beams	G-F	HL CRACKS, DELAMS, REBAR SPALLS, PATCHES, COLLISION SPALLS.
Floor Beams	NA	
Stringers	NA	
Diaphragms	GOOD	
Bracing	NA	
Trusses - General	NA	
Portals	NA	
Bracing	NA	
Paint	NA	
Alignment of Members	GOOD	

**TEXTURE COAT**

Condition Rating	<u>FAIR</u>	Needs Spot Painting	<u>YES</u>
Overall Appearance	<u>FAIR</u>	Needs Repainting	<u>NO</u>
Staining Rating	<u>FAIR</u>	Comments	
Fading Rating	<u>FAIR</u>		
Scaling Rating	<u>GOOD</u>		

**SUBSTRUCTURE**

**ABUTMENTS**

	Rating	Comments
Caps	GOOD	
Breastwall	GOOD	<i>HL-NARROW CRACKS, DELAM, SPALL.</i>
Wings	GOOD	
Backwall	GOOD	<i>HL CRACKS W/ EFF.</i>
Plumb	GOOD	
Footing	NA	
Piles	NV	
Embankment	GOOD	
Bearing Surface	GOOD	
Slope Paving	NA	
Rip Rap	GOOD	

**PIERS**

Caps	N/A	
Columns	N/A	
Plumb	N/A	
Footings	N/A	
Piles	N/A	
Bearing Surface	N/A	

**BENTS**

Caps	GOOD	<i>HL-SM cracks</i>
Columns	GOOD	<i>HL-SM cracks</i>
Plumb	GOOD	
Footings	GOOD	
Piles	NV	
Bearing Surface	GOOD	

Piles Need Replacement: \_\_\_\_\_

Piles To Be Replaced:





Inspection Team's Summary  
Bridge Location No. 33 - I0075 - 0191  
Inspection Date 7/19/2016  
Bridge Rating FAIR

Page No. \_\_\_\_

TYPE SERVICE: I 75 NBL & SBL  
OVER: SOUTH CHICKAMAUGA CREEK \*

On Tuesday, July 19, 2016, a Region Two bridge inspection team inspected this structure and found it to be in FAIR condition.

**TOP OF DECK**

*Traffic Safety Features*

Bridge Rail:	POOR	STANDARD	SIGNIFICANT DAMAGE AT RIGHT SIDE
Transitions:	FAIR	NONSTANDARD	METAL BLOCKS
Approach Rail:	FAIR	NONSTANDARD	METAL BLOCKS
Terminals:	FAIR	NONSTANDARD	> 100' from bridge end

*Wearing Surfaces*

Approach Pvm:	POOR	Approach 1 - Left/Right potholes
Deck - Wearing Surface:	FAIR	NUMEROUS NARROW CRACKS. SPALL.

**BOTTOM OF DECK**

Deck - Structural Condition: GOOD HL CRACKS W/ EFF.

**SUPERSTRUCTURE**

Beams:	G-F	HL CRACKS, DELAMS, REBAR SPALLS, PATCHES, COLLISION SPALLS.
Bearings:	GOOD	Abutments - None - Integral, Bents - Fixed

**SUBSTRUCTURE**

*Abutments*

Caps:	GOOD	
Breastwall:	GOOD	HL-NARROW CRACKS, DELAM, SPALL.
Wings:	GOOD	
Backwall	GOOD	HL CRACKS W/ EFF.
Bearing Surface:	GOOD	

*Bents*

Caps:	GOOD	HL-SM cracks
Columns:	GOOD	HL-SM cracks
Bearing Surface:	GOOD	

**UNDERCLEARANCE**

Min Vert Under Clear(ft-in): NA

**SPECIAL NOTES**



# RT. EDGE OF BRIDGE

**BRIDGE LOC. NO.:**

**33-I75-1.91**

**DATE: 07/17/2012**

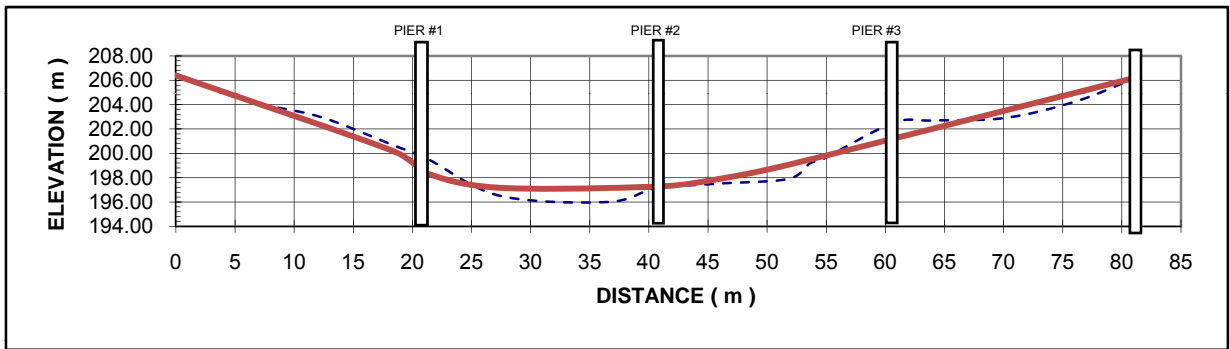
**OVER: SOUTH CHICKAMAUGA  
DOWNSTREAM**

No change: 2012

( m )	LOCATION	ELEV.'98	EL.2008
ABUT #1	0.00	206.40	206.40
	6.10	204.30	
	12.19	203.00	
PIER #1	18.29	200.70	200.21
	21.34	199.50	198.31
	27.43	196.50	197.16
PIER #2	36.58	196.00	
	40.54	197.10	197.26
	45.72	197.50	197.86
PIER #3	51.82	197.90	199.06
	53.64	199.20	
	54.86	199.60	
ABUT #2	60.66	202.50	
	64.01	202.70	
	70.10	202.90	
	76.20	204.30	
	81.08	206.20	206.20

BENCH MARK = 209.18 m  
RIGHT CORNER OF BRIDGE SEAT, ABUT #1

ELEVATION OF FOOTINGS		BOTTOM
PIER #1	195.07 m	
PIER #2	195.07 m	
PIER #3	195.68 m	



# LEFT EDGE OF BRIDGE

**BRIDGE LOC. NO.:**

**33-I75-1.91**

**DATE: 07/17/2012**

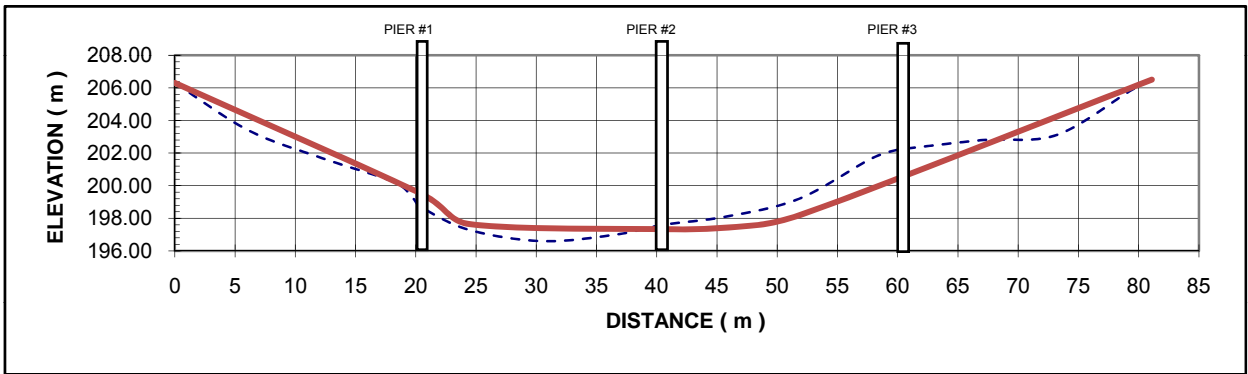
**OVER: SOUTH CHICKAMAUGA CREEK**  
UPSTREAM

No Change: 2012

( m )	LOCATION	ELEV.'98	EL.2008
ABUT #1	0.00	206.30	206.30
	6.10	203.40	
	12.19	201.70	
	18.29	200.20	
	19.81	199.20	
PIER #1	20.42	198.70	199.51
	24.38	197.30	197.65
	30.48	196.60	
	36.58	197.00	
PIER #2	40.54	197.60	197.33
	45.72	198.10	197.43
	51.82	199.20	198.18
	57.91	201.70	
PIER #3	60.66	202.30	
	60.96	202.30	
	67.06	202.80	
	73.15	203.10	
	79.25	205.80	
ABUT #2	81.08	206.50	206.50

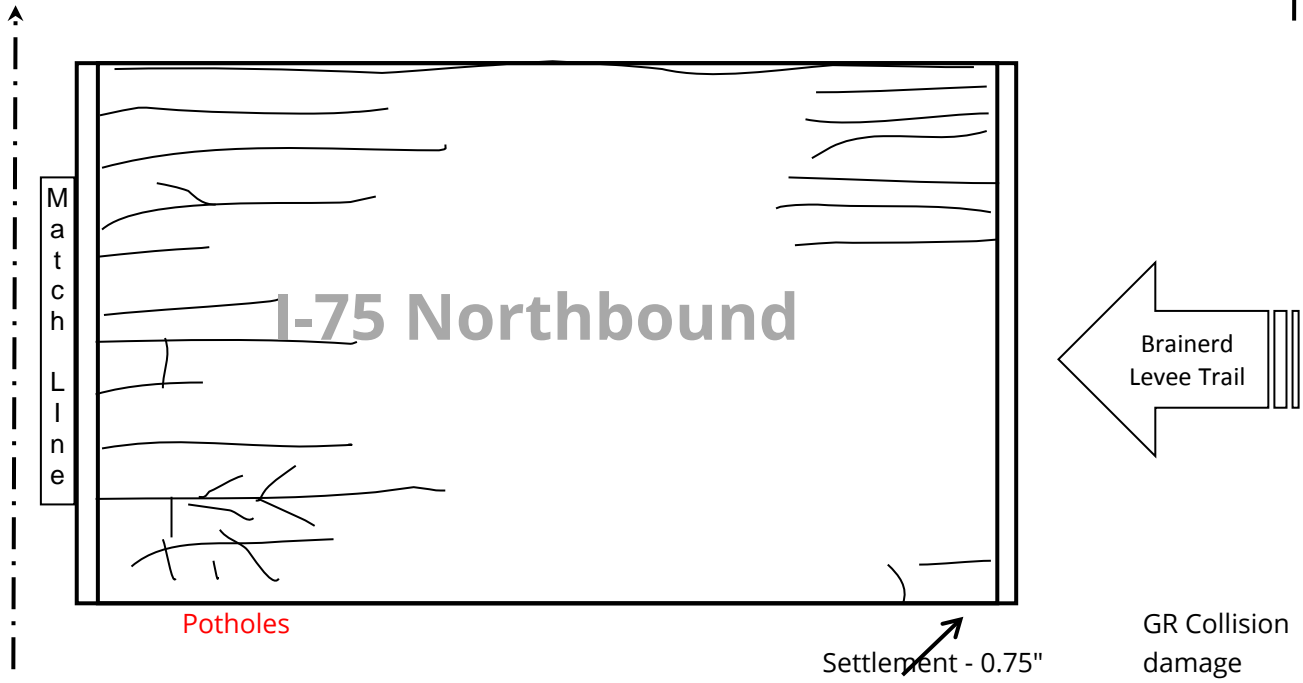
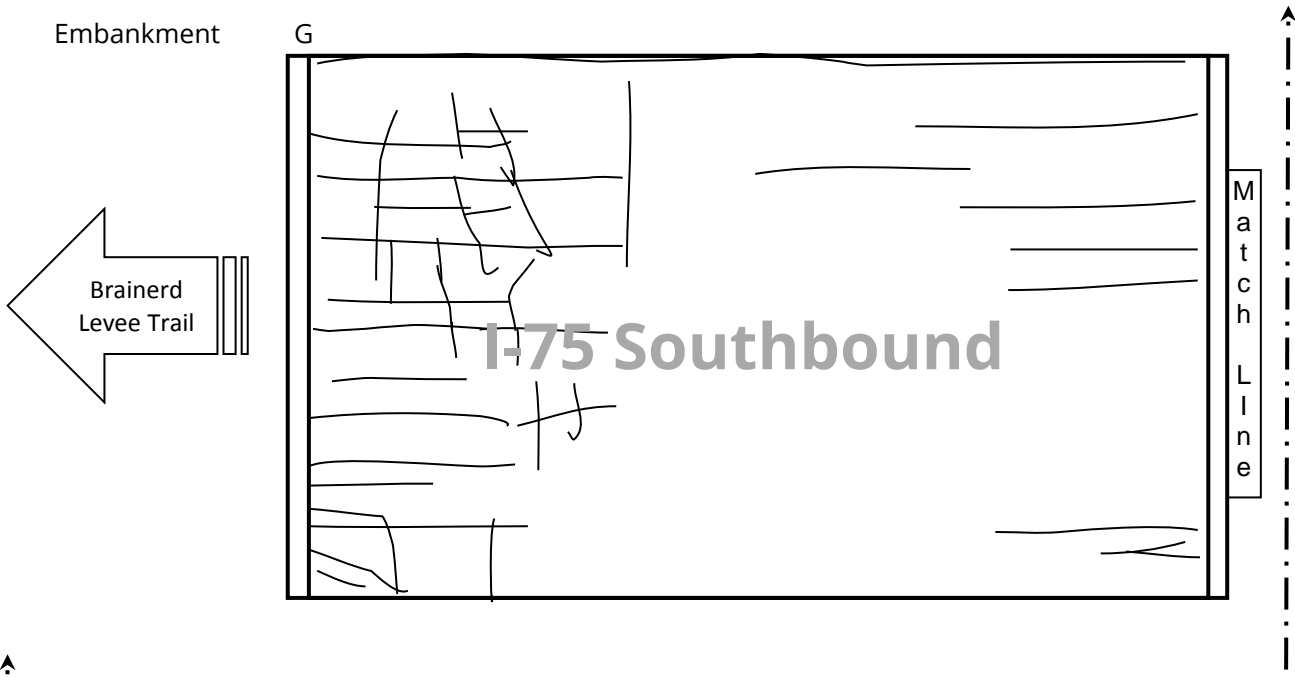
BENCH MARK = 209.18 m  
RIGHT CORNER OF BRIDGE SEAT, ABUT #1

ELEVATION OF FOOTINGS		BOTTOM
PIER #1	195.07 m	
PIER #2	195.07 m	
PIER #3	195.68 m	



2016 Changes in RED

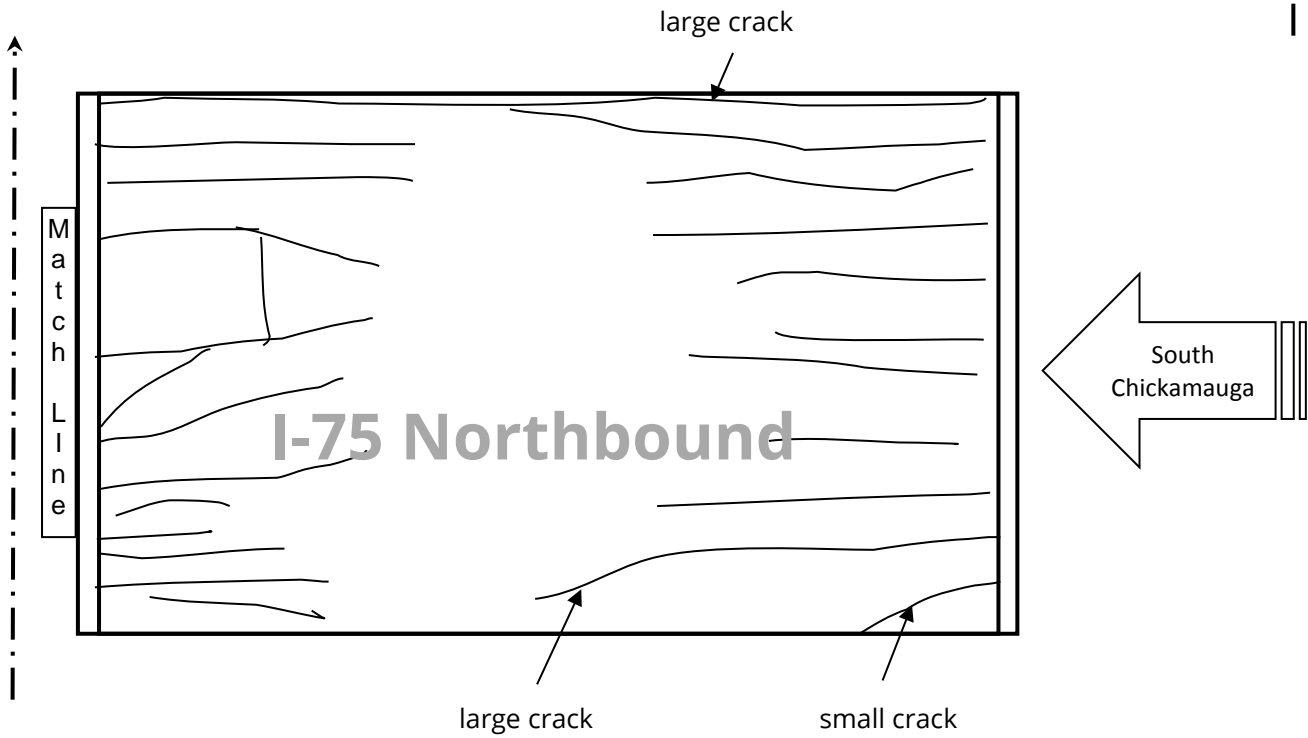
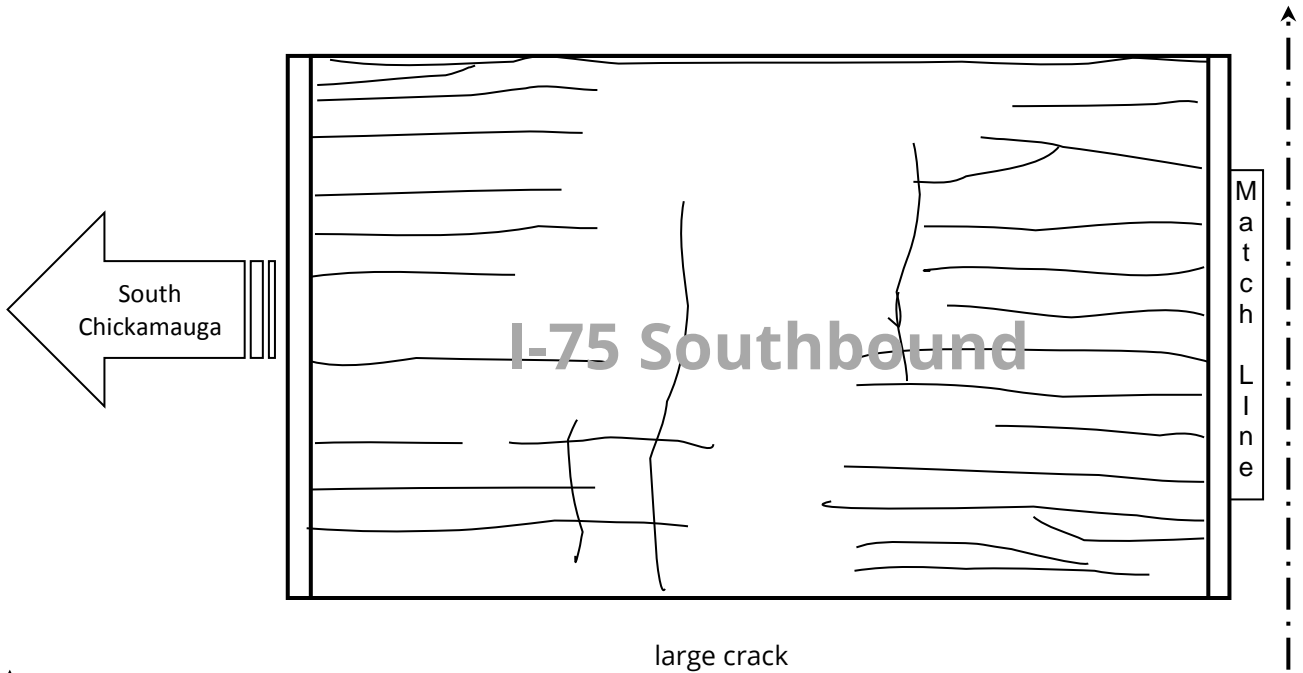
App Pvmt: P  
App Rail:  
Wearing Surface: F  
Bridge Rail: GF  
Embankment G



2016 Changes in RED

Wearing Surface: F

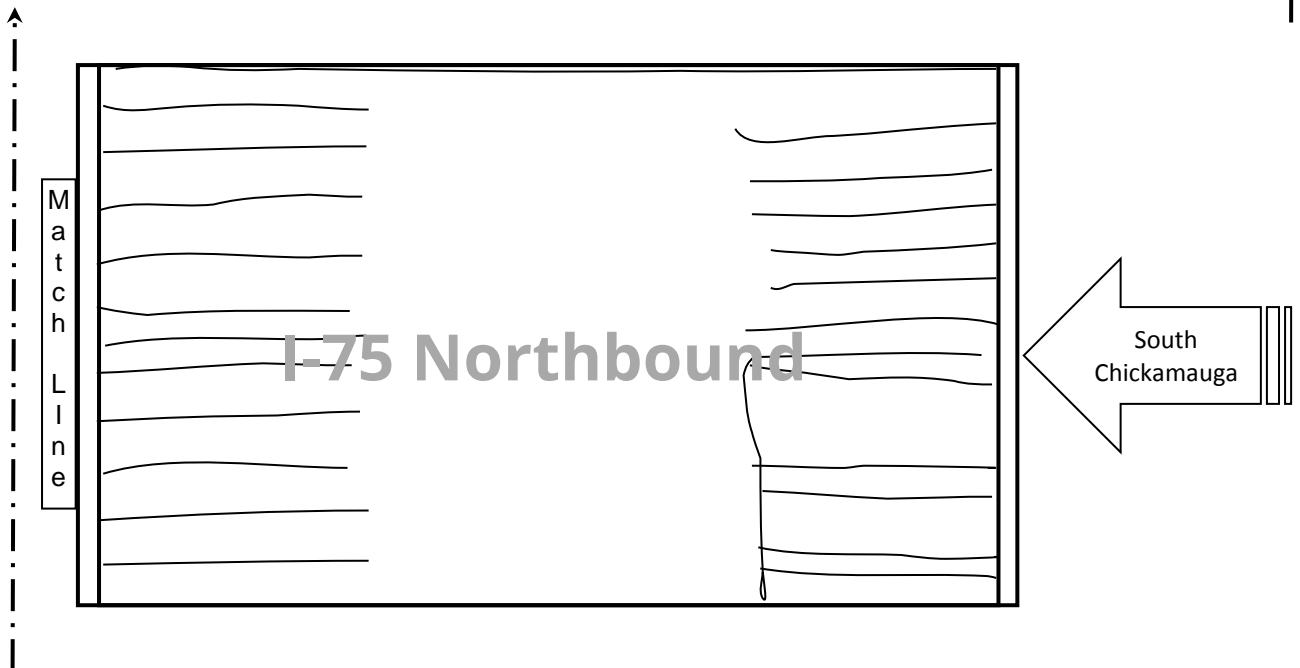
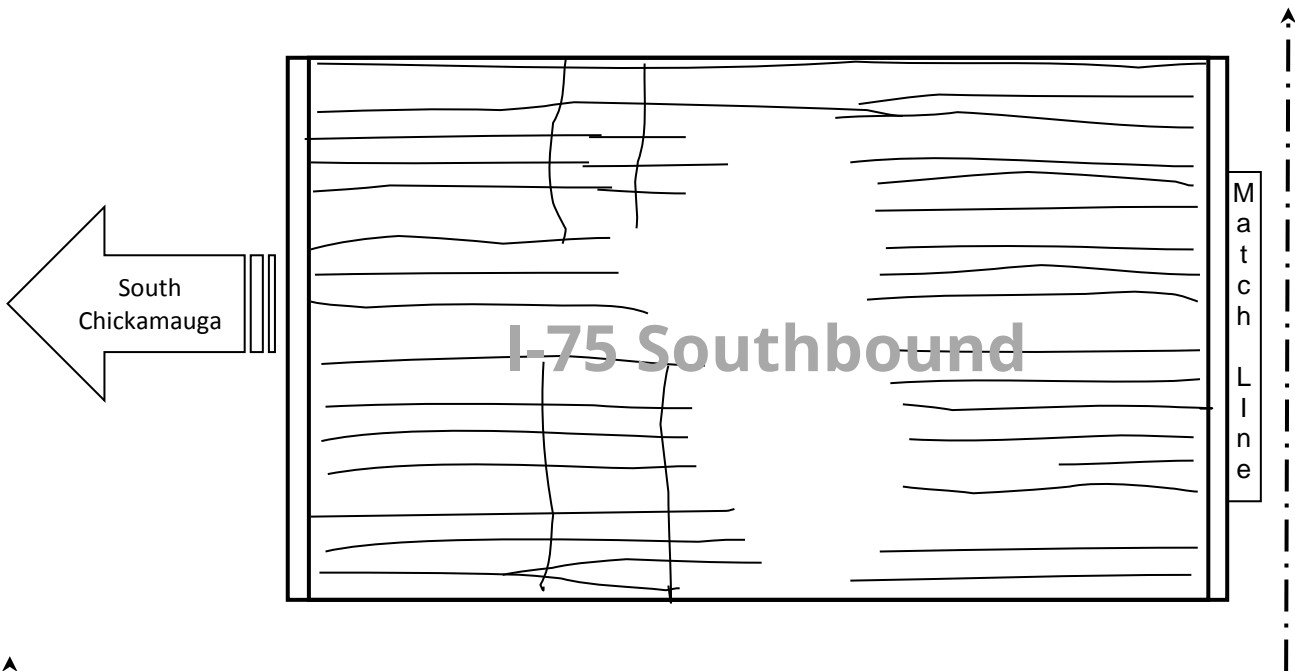
Bridge Rail: GF



2016 Changes in RED

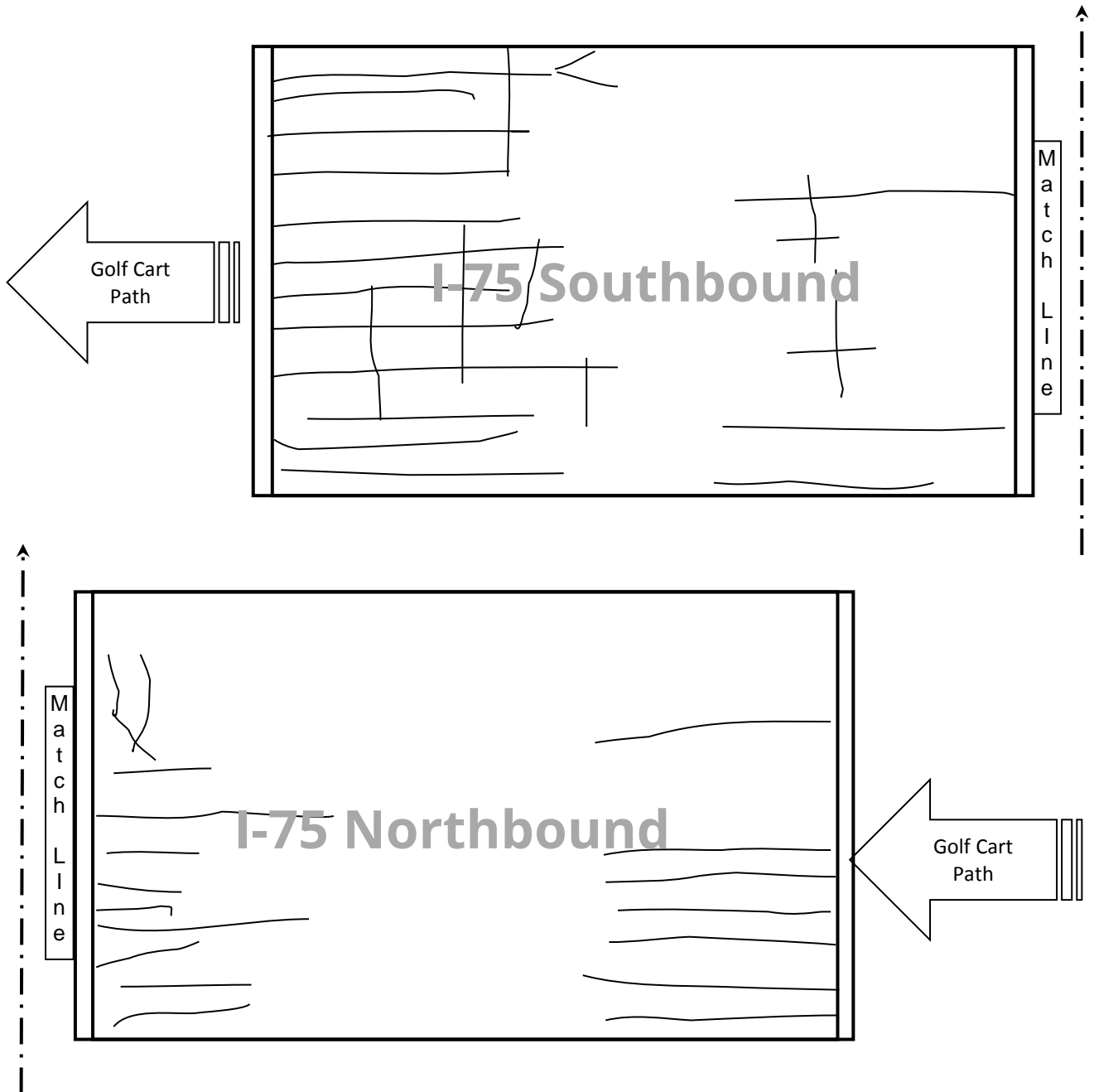
Wearing Surface: F

Bridge Rail: GF **Misaligned**



2016 Changes in RED

- Embankment G
- App Pvmt: GF
- App Rail: Nonstandard - metal blocks
- Wearing Surface; F
- Bridge Rail: GF **Damaged. Misaligned**

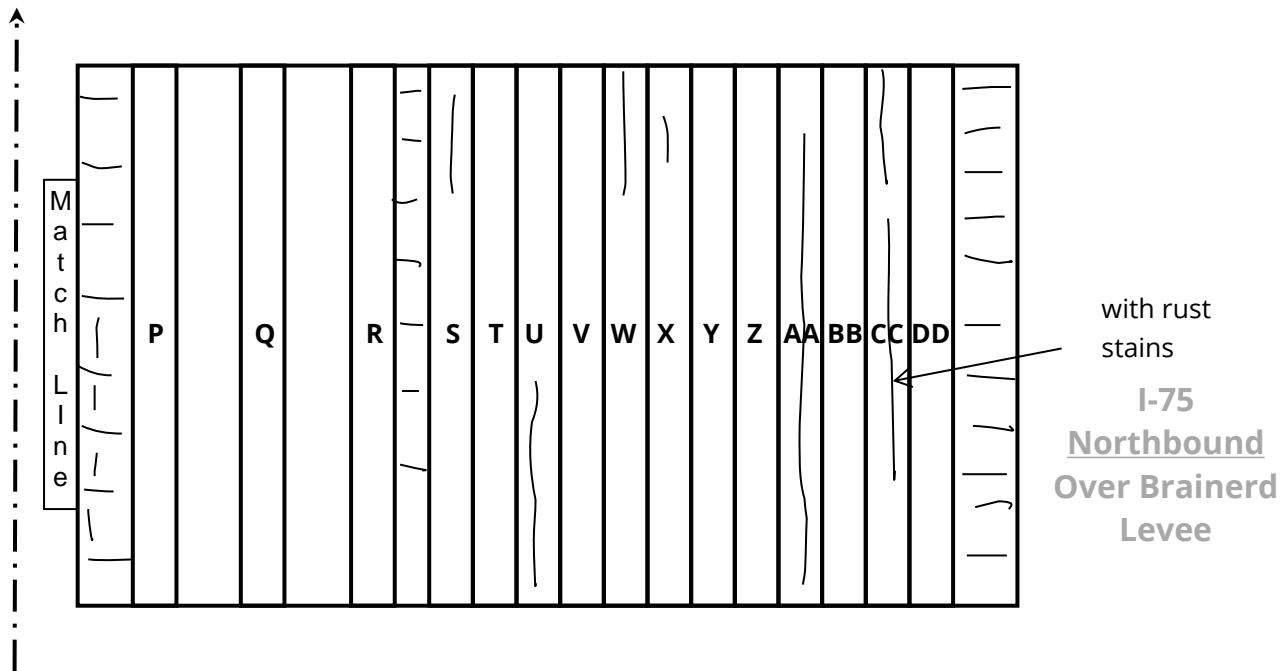
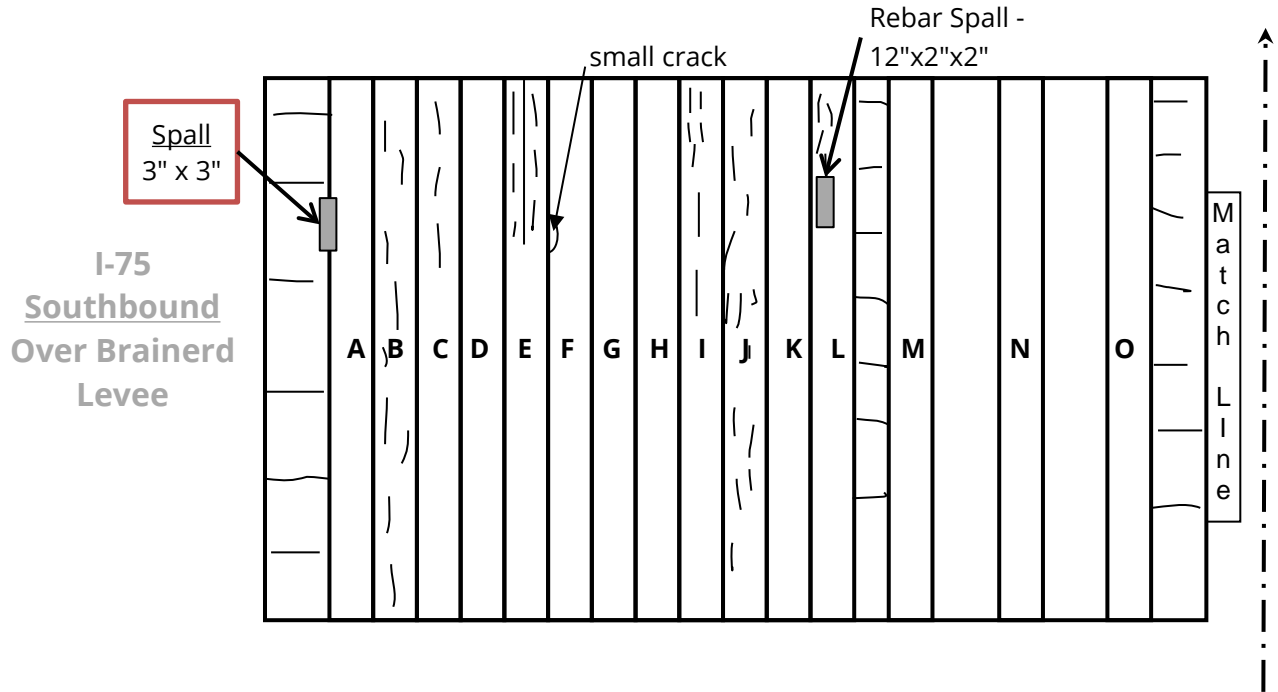




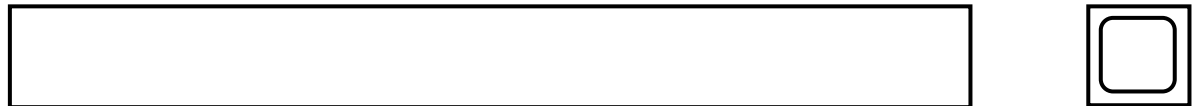
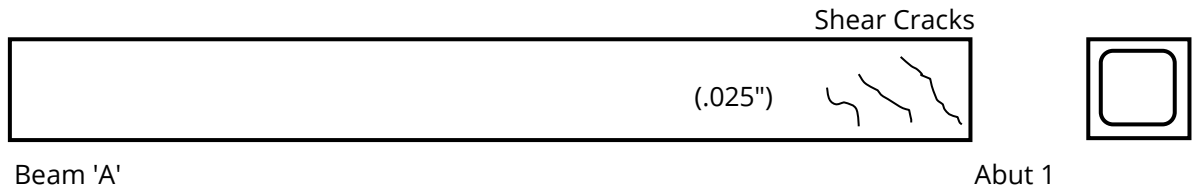
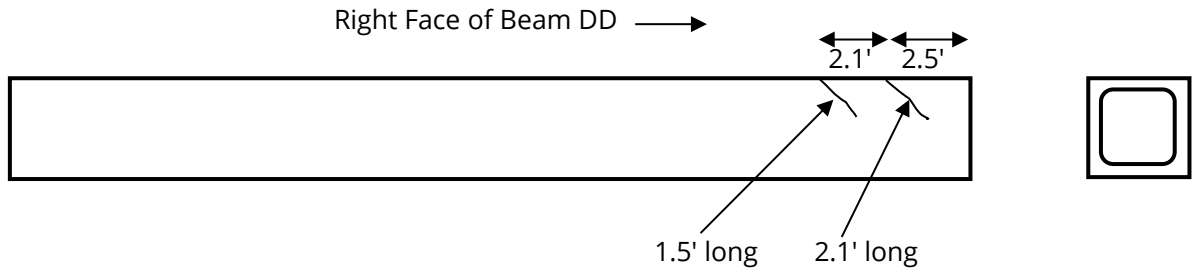
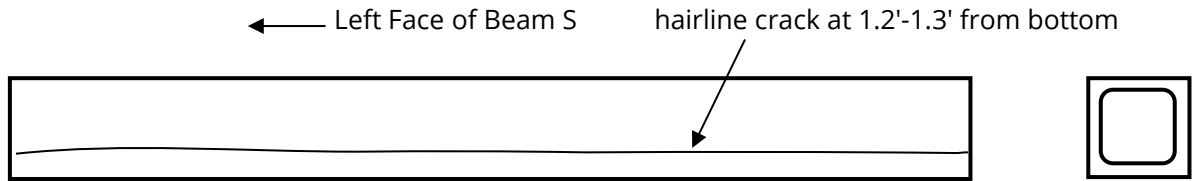
2016 Changes in RED

Beams: GF Several areas are patched

Deck: GF **Small rebar popouts throughout**



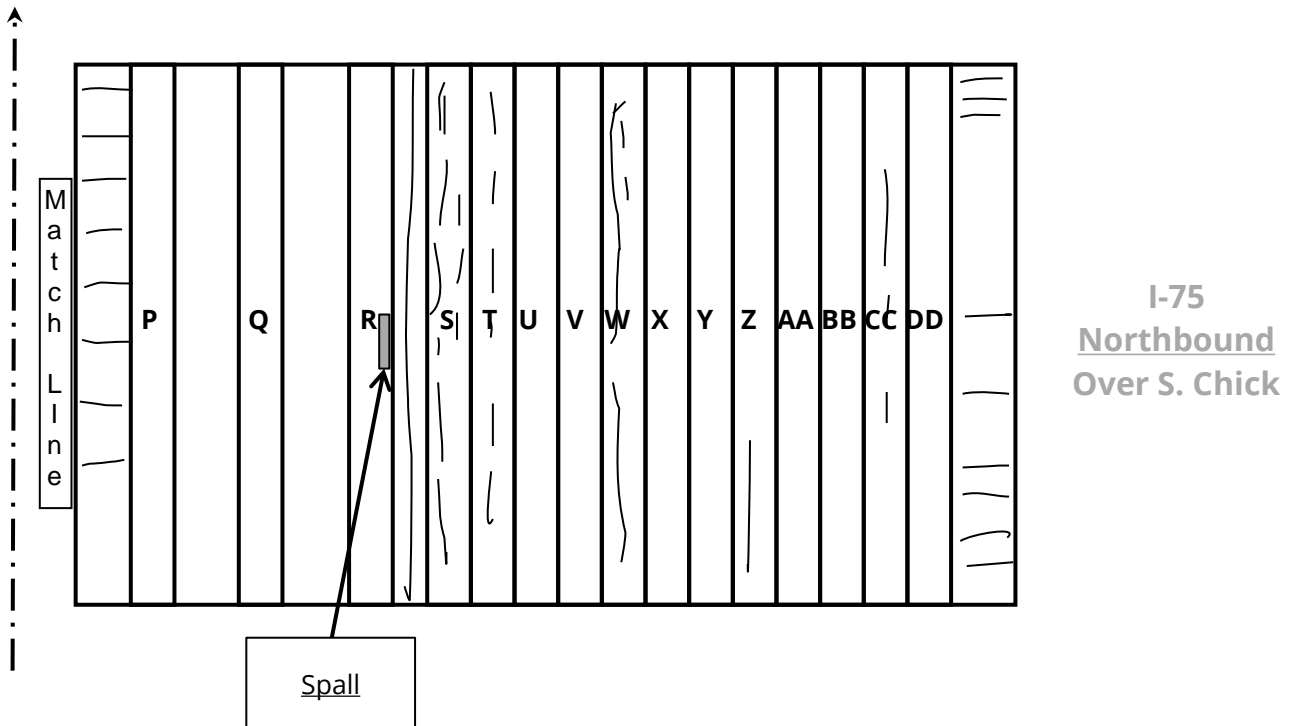
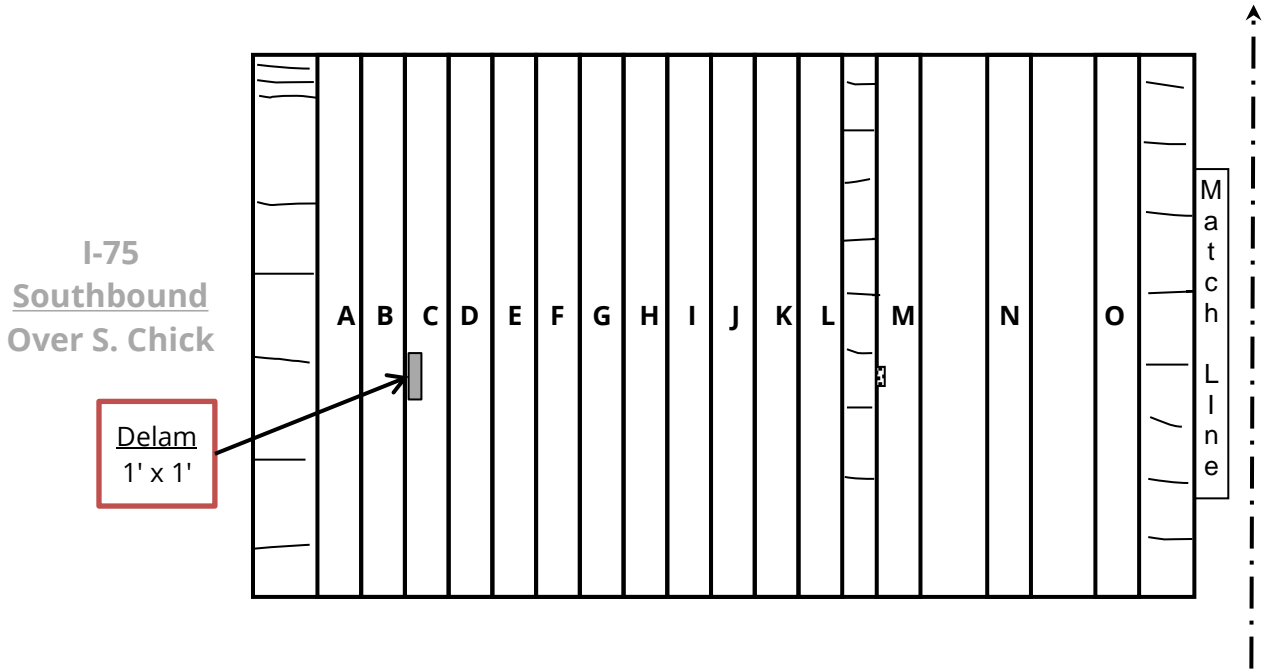
2016 Changes in RED



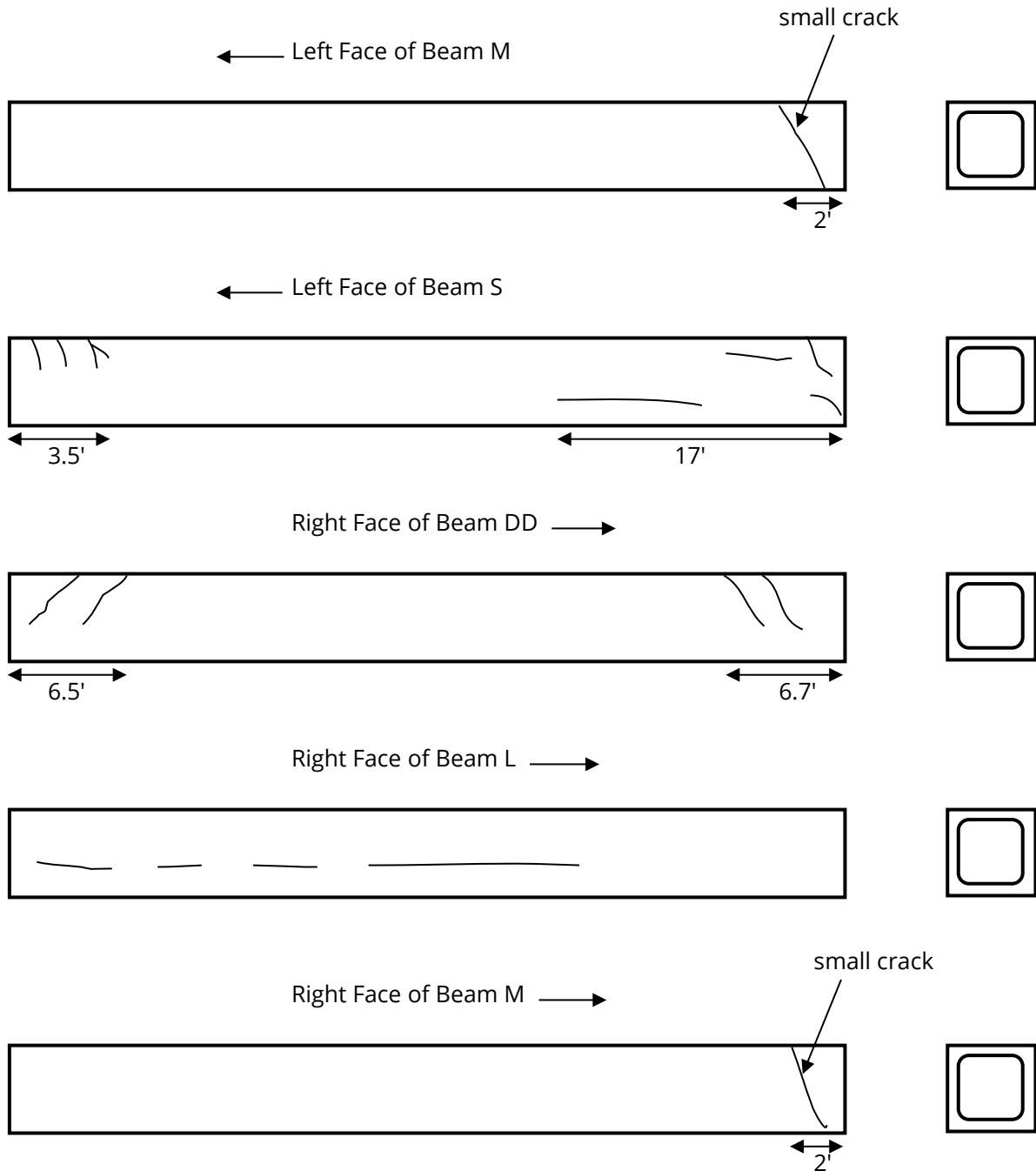
2016 Changes in RED

Beams: GF

Deck: GF



2016 Changes in RED

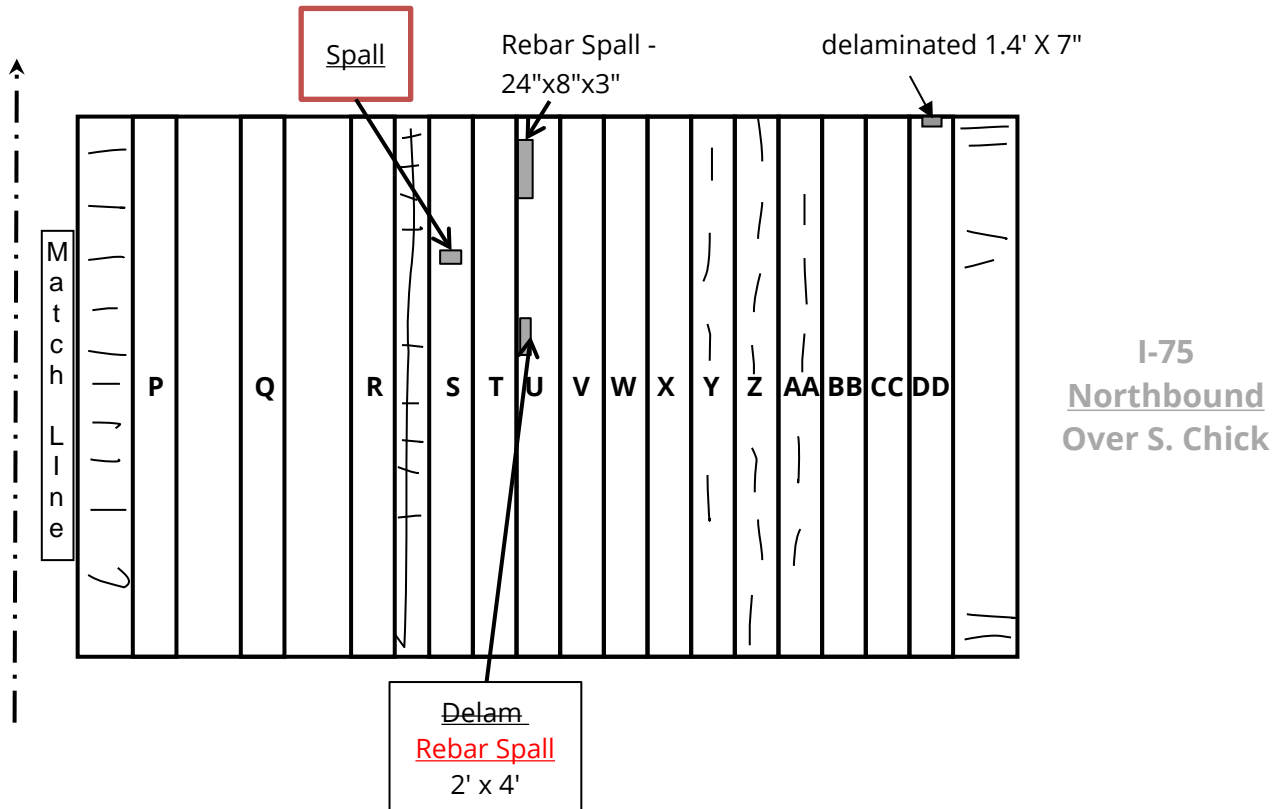
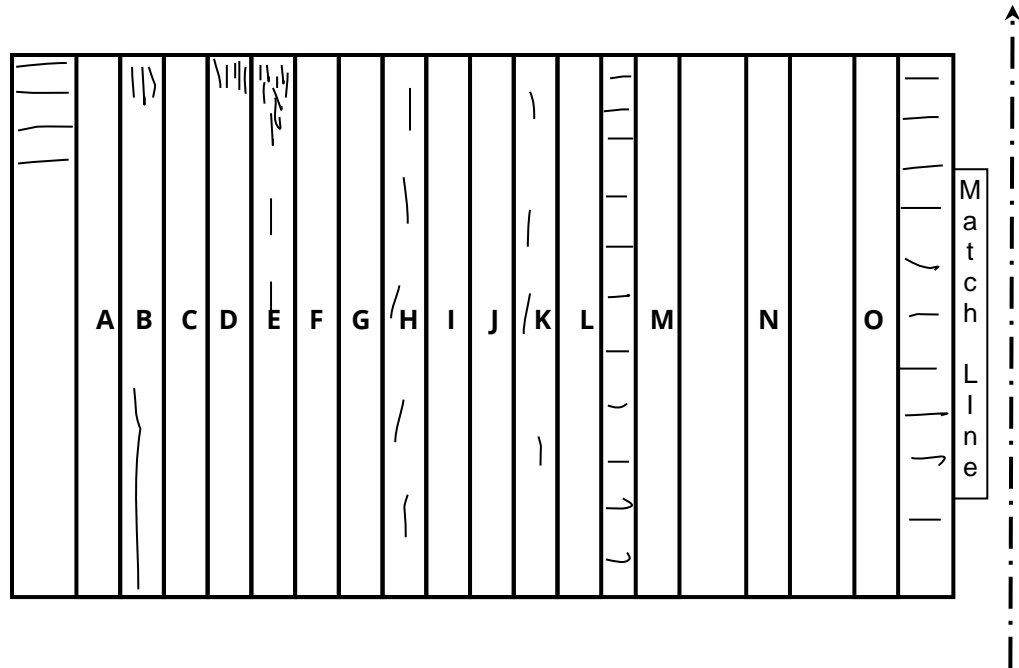


2016 Changes in RED

Beams: GF

Deck: GF

I-75  
Southbound  
Over S. Chick

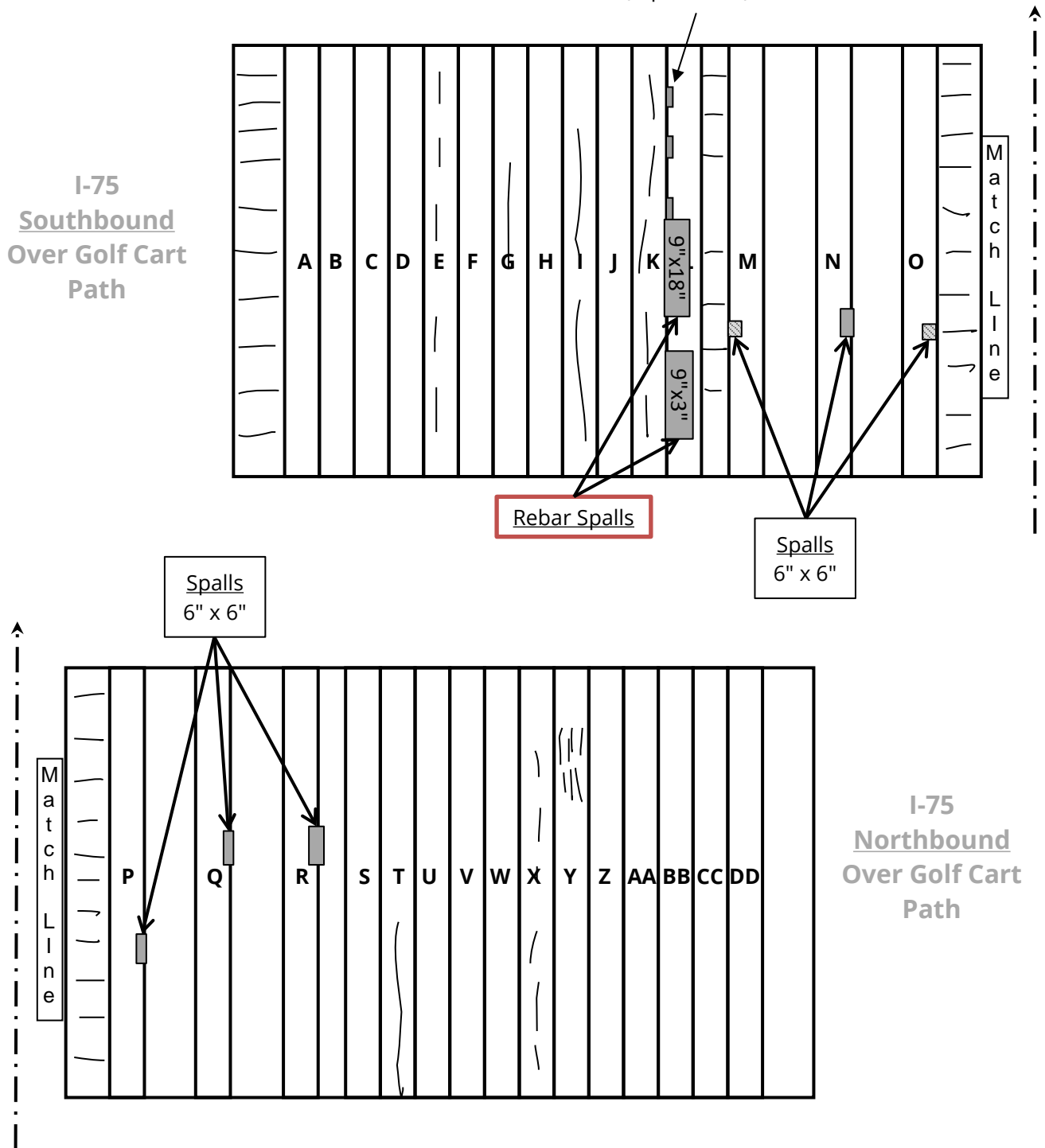


2016 Changes in RED

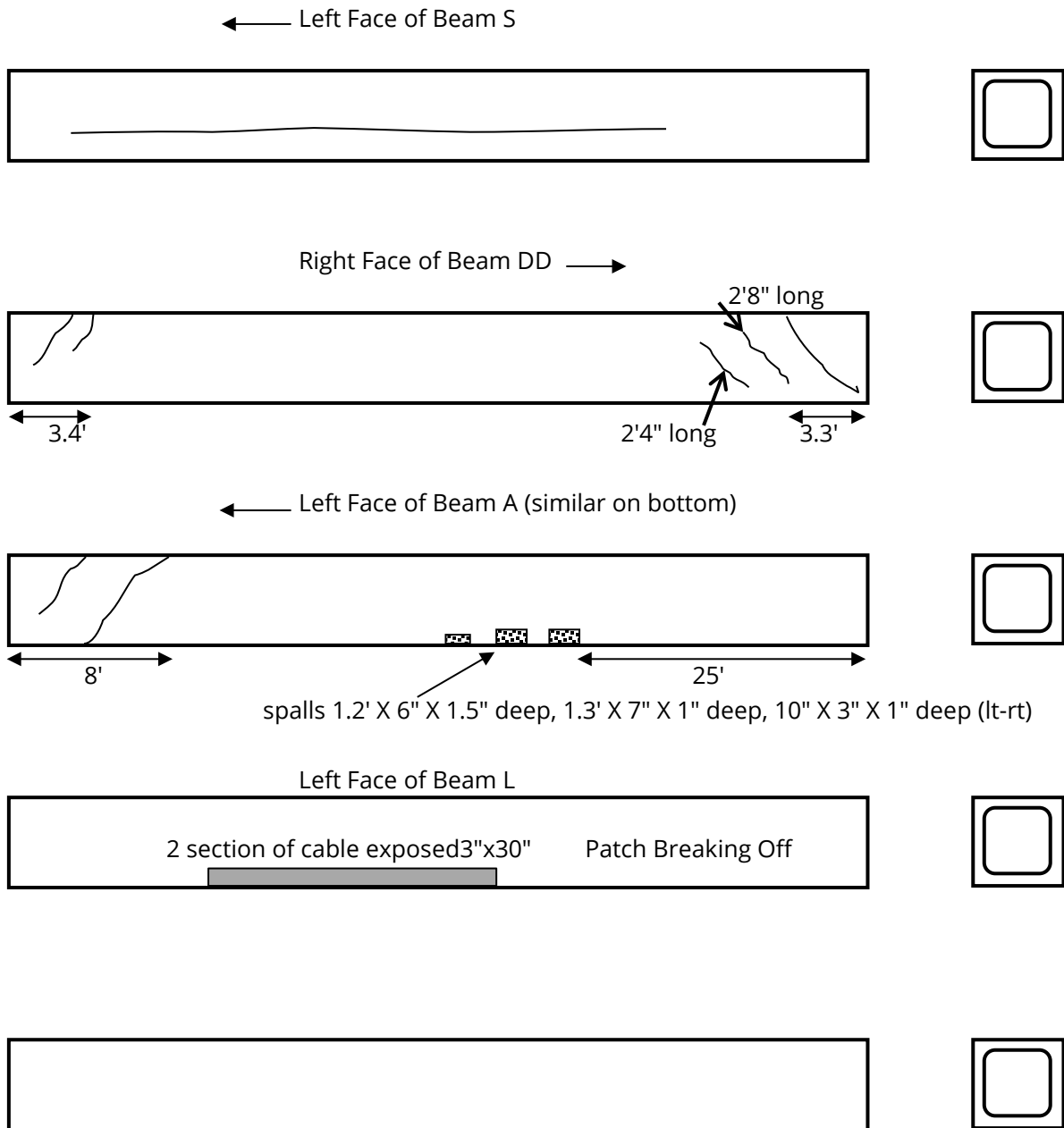
Beams: GF

Deck: GF

delaminated areas (top-bottom) 3" X 2', 5" X 1.7', & 4" X 4.5'

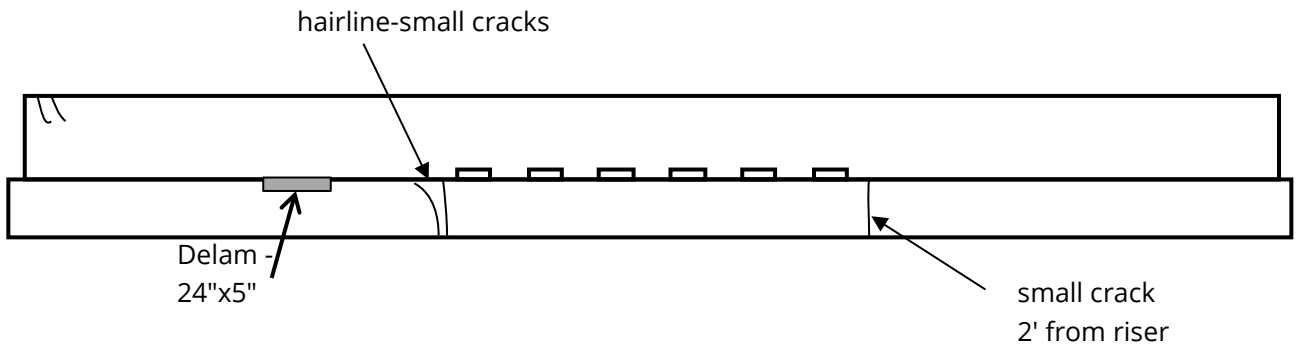
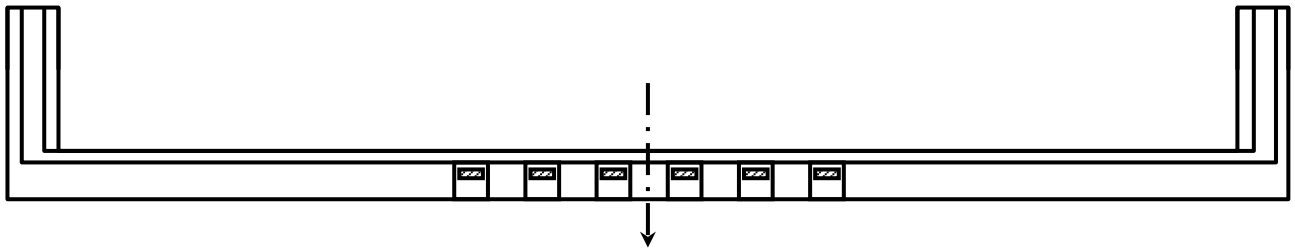


2016 Changes in RED



2016 Changes in RED

Wings: G  
Walls: G  
Bearings: None Integral





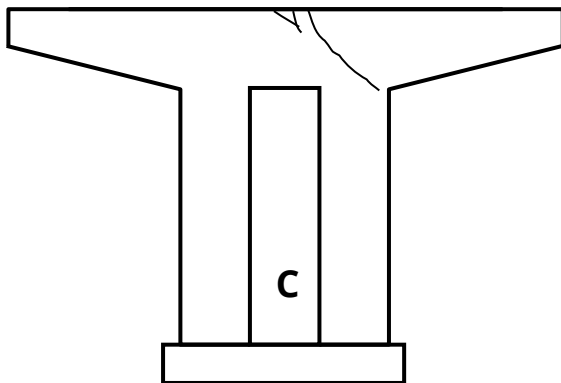
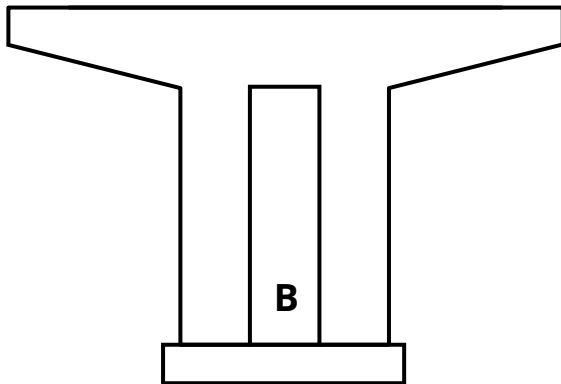
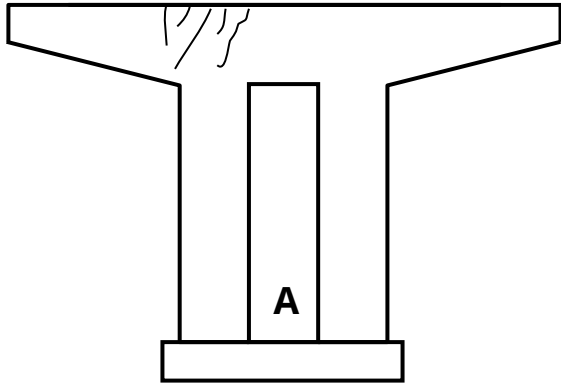
2016 Changes in RED

Columns: G

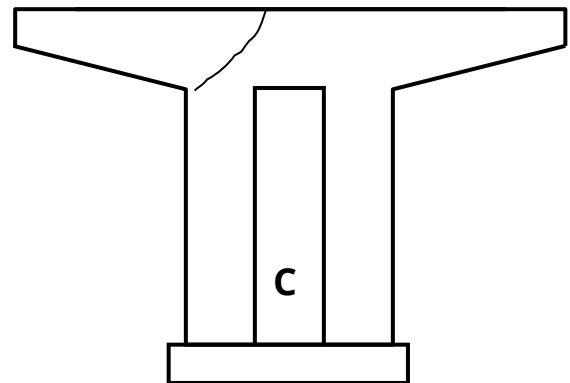
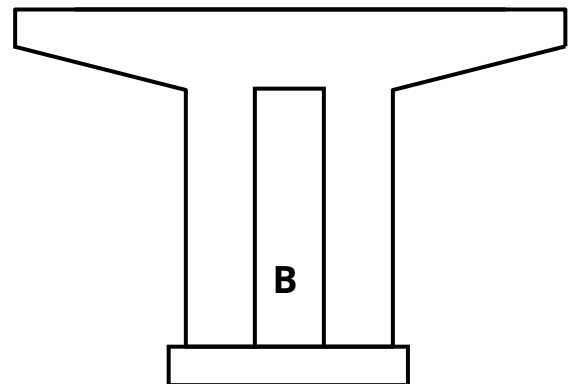
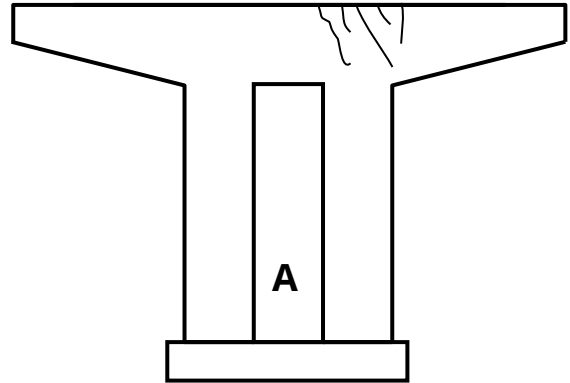
Cap: G

Bearings: G Fixed

Looking Ahead



Looking Back



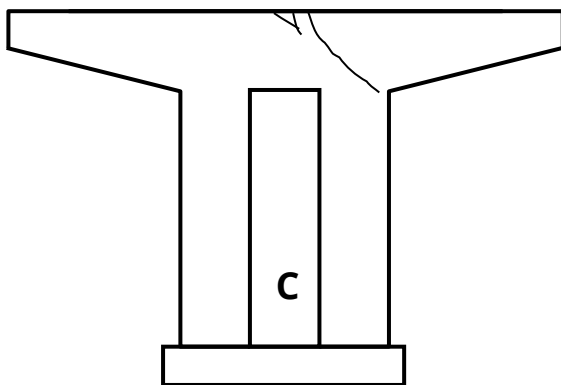
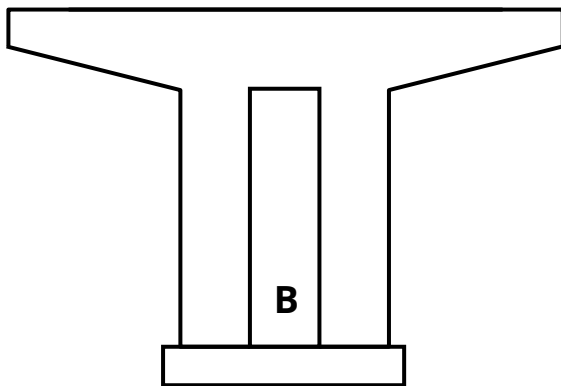
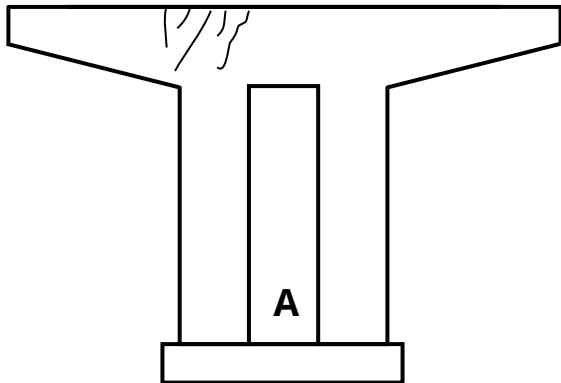
2016 Changes in RED

Columns: G

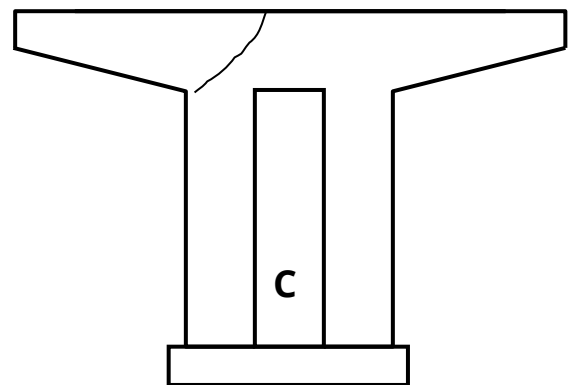
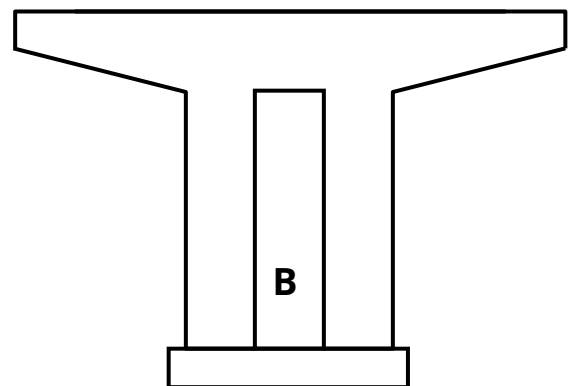
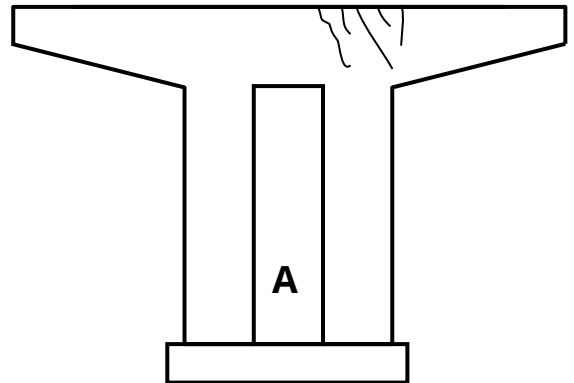
Cap: G

Bearings: G Fixed

Looking Ahead



Looking Back



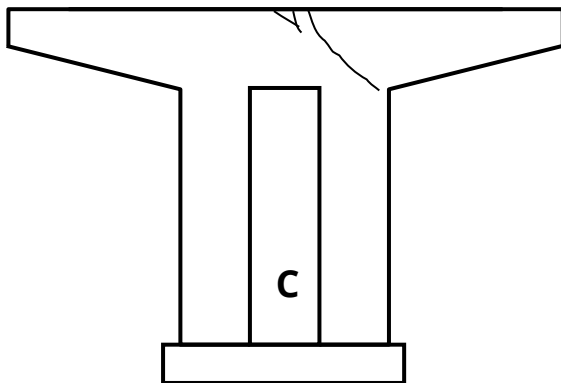
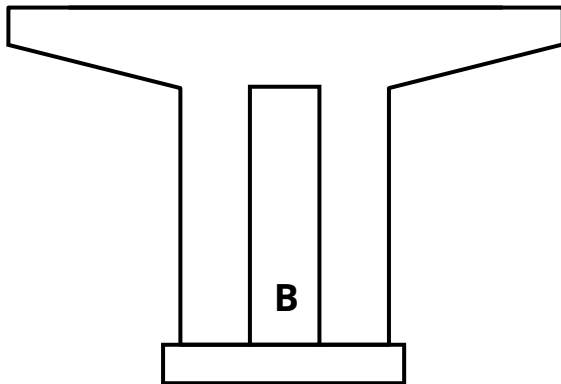
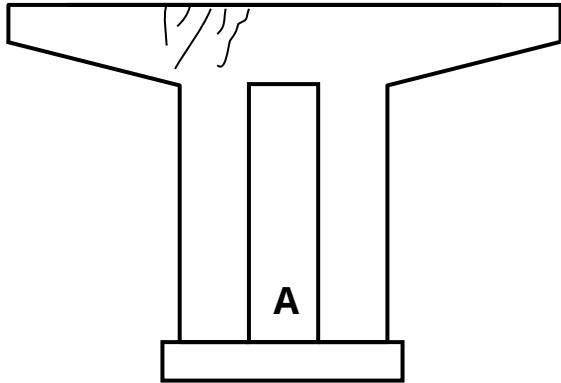
2016 Changes in RED

Columns: G

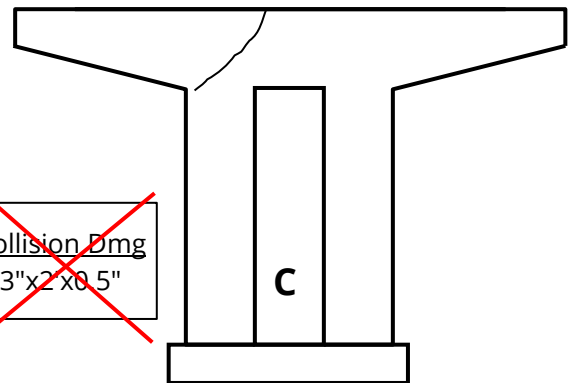
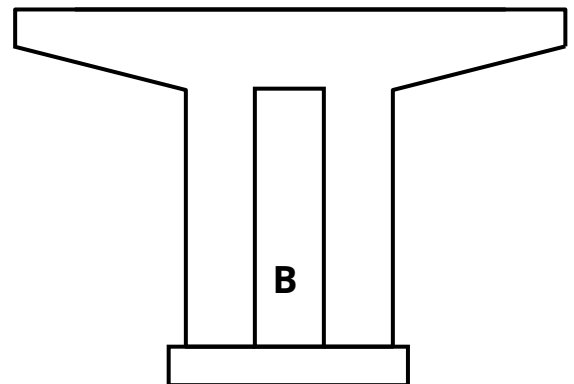
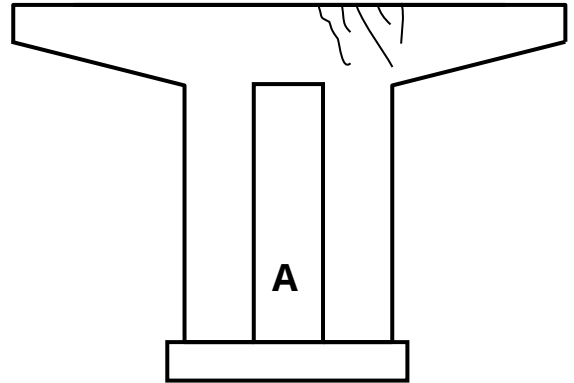
Cap: G

Bearings: G Fixed

Looking Ahead



Looking Back



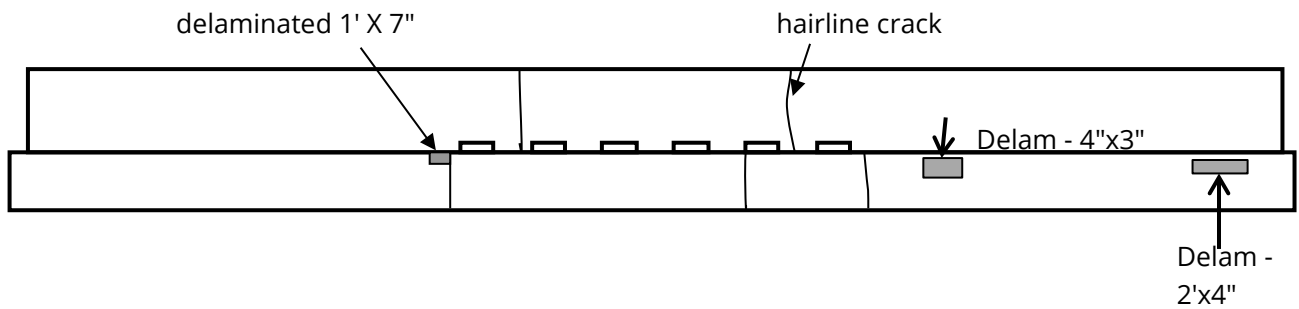
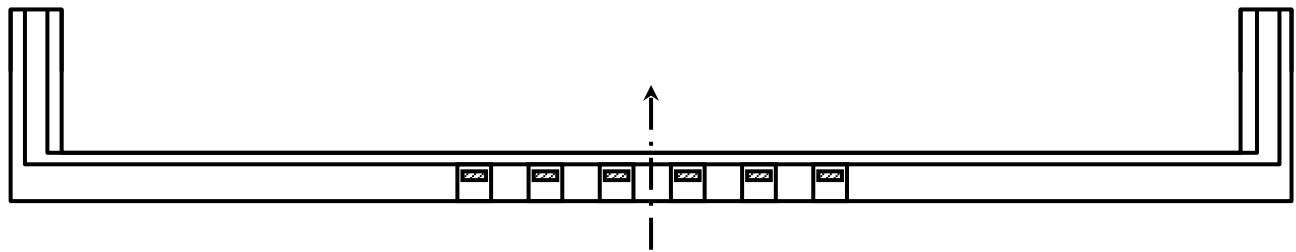
~~Collision Dmg  
3"x2"x0.5"~~

2016 Changes in RED

Wings: G

Walls: G

Bearings: None Integral



### Structure Inventory and Appraisal Sheet (English Units)

ELEMENT CONDITION STATE DATA												
Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
0	12/1	Re Concrete Deck	sq.ft	34,580	100%	34,580	0%	0	0%	0	0%	0
0	510/1	Wearing Surfaces	sq.ft	34,580	100%	34,580	0%	0	0%	0	0%	0
0	104/1	Pre Clsd Box Girder	ft	7,980	100%	7,980	0%	0	0%	0	0%	0
0	210/1	Re Conc Pier Wall	ft	135	100%	135	0%	0	0%	0	0%	0
0	215/1	Re Conc Abutment	ft	260	100%	260	0%	0	0%	0	0%	0
0	234/1	Re Conc Pier Cap	ft	390	100%	390	0%	0	0%	0	0%	0
0	302/1	Compressn Joint Seal	ft	260	100%	260	0%	0	0%	0	0%	0
0	313/1	Fixed Bearing	each	90	100%	90	0%	0	0%	0	0%	0
0	321/1	Re Conc Approach Slab	sq.ft	7,020	100%	7,020	0%	0	0%	0	0%	0
0	331/1	Re Conc Bridge Railing	ft	798	100%	798	0%	0	0%	0	0%	0