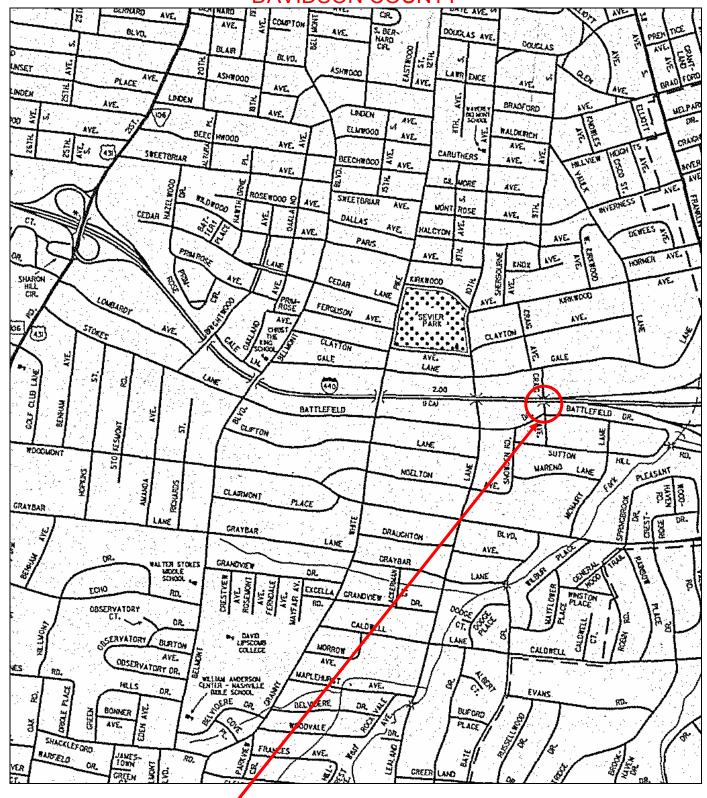
DAVIDSON COUNTY



19I04400030 19-I0440-4.36 LT I0440 LL/CRAIG AVE.

PRODUCED PURSUANT TO
PUBLIC RECORDS REQUEST
This document is covered by 23 USC §409
And its production pursuant to a public
document records request does not
waive the provisions of §409

BRIDGE MAINTENANCE RECOMMENDATIONS

COUNTY: DAVIDSON

LOCATION: 19-I0440-04.36-L

CO. SEQ.: 1 SPEC. CASE: 0

MILEPOST: 4.3

CROSSING: 1440-LL / CRAIG AVE. REPAIR LIST NO.: N

FED. BRIDGE NO.: 19I04400030 DATE ADDED:

MAINT. DIST.: 19 REVISED: 03/06/2014

FACILITY CARRIED:			1440	NUMBER OF MAIN SPANS:	1
HIGHWAY SYSTEM:	02-IN	TERSTATE	URBAN	NUMBER OF APPROACH SPANS:	0
BRIDGE WIDTH (CURB TO CURB):		54 FT	1 IN	BRIDGE LENGTH (FT):	112
BRIDGE WIDTH (OUT TO OUT):		56 FT	1 IN	MAXIMUM SPAN LENGTH (FT):	110
APPROACH ROADWAY (W/SHOULDERS)	:	54 FT	1 IN	SKEW ANGLE (DEGREES):	90
	•				
MAINTAINED BY:				STATE HIGHWAY AGENCY	
MAIN SPAN MATERIAL:				PRESTRESSED CONCRETE	
MAIN SPAN DESIGN TYPE:	BOX	BEAM OR	GIRDE	RS - SINGLE OR SPREAD	
APPROACH SPAN MATERIAL:			OT	HER OR NOT APPLICABLE	
APPROACH SPAN DESIGN TYPE:			OT	HER OR NOT APPLICABLE	
INSPECTION DATE: 03/0	4/2016			GENERAL CONDITION:	FAIR
EVALUATION DATE: 05/0	3/2014		S	STRUCTURALLY DEFICIENT:	NO
PPRM PIN NUMBER:					_
H TRUCK RATING @ INV.: 20	TONS		5	SUFFICIENCY RATING:	83.0

No.	RECOMMENDATIONS	REPAIR DATE	REPAIRED BY
1.	REPAIR BRIDGE JOINTS		
2.	REPAIR APPROACH JOINTS		
3.	LEVEL THE WEARING SURFACE AT APPROACH #2		

SUGGESTED ROUTINE MAINTENANCE AND COMMENTS
REPAIR BOTTOM DECK BAY'S 'A', 'B', & 'D'
SEAL CONCRETE DECK
SEAL APPROACH SLABS
RETEXTURE COAT PARAPETS LEFT AND RIGHT

MENTS:		

Tennessee Department of Transportation



Bridge Condition Coding Form

Revised 03/07/2016

County: 19 DEPARTMENT OF TRANSPORTATION **Route: I0440** Bridge Number: 19I044000301 (Includes Item 5A) **Special Case:** 0 **Feature Intersected:** I440-LL / CRAIG AVE. **County Sequence:** 1 Log Mile: 4.36 **Evaluation Status:** OTHER ITEM(S) HAVE BEEN CHANGED

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

TEM#	DESCRIPTION	VALUE	
90	LAST INSPECTION DATE	03/04/2016	
	EARLIEST DATE OF	01/03/2018	İ
	NEXT REGULAR INSPECTION	/ /	
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 FT	IN IN
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 FT	IN IN
36	TRAFFIC SAFETY FEATURES Br. Rail Trans. Appr. Rail Te 1 0 0	rminal SPEED LI 1 55	MI
41	STRC OPEN/CLOSED/POSTED A K P	A	_
58	DECK	5	
59	SUPERSTRUCTURE	7	
60	SUBSTRUCTURE	7	
61	CHANL/CHANL PROTECTION	N	
62	CULVERT AND RETAIN WALL	N	
71	WATERWAY ADEQUACY	N	
72	APPROACH RDWY ALIGNMENT	8	
521	OVERALL CONDITION	FAIR	
	LATITUDE 17 LONGITUD N 36° 6.9590′ W 86° 47.0190		_
T	EAM LEADER SIGNATURE	/ / REVIEW DATE	C

CONDITION CODING GUIDELINES

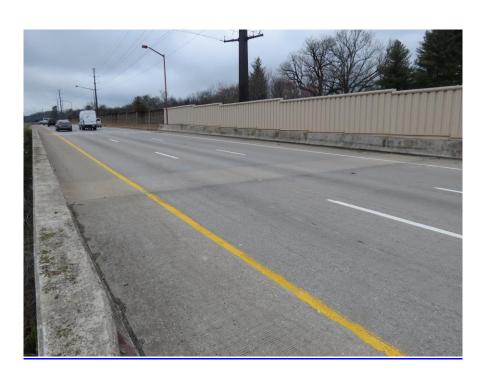
(Values for Coding Items 58, 59, 60 and 62)

- 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. by 23 USC §409

And its production pursuant to a public document records request does not waive the provisions of §409



APPROACH "B" - WBL



VIEW ACROSS TOP OF WEARING SURFACE WBL



APPROACH "A" - WBL



APPR. "A" END JOINT W/ PATCHES WBL



BRIDGE NO.



ABUTMENT #2



DECK PANEL BAY "B" ABUT. #1 SPALL & EXP. STL



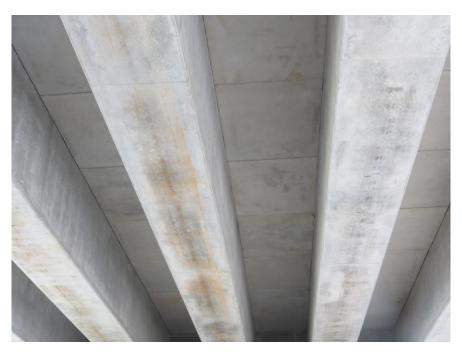
CLEARANCE VIEW LT. SIDE



VIEW LOOKING NORTH ON CRAIG AVE.



VIEW LOOKING SOUTH ON CRAIG AVE.



BOTTOM OF DECK



DECK PANEL BAY "D" ABUT. #1 W/ SPALL



DECK PANEL BAY "D" ABUT. #1 OVERALL VIEW

BRIDG	E INSPECTION REPORT		Page No
Form BIR 3.0	Field Report No.	21	Date 3/4/2016
(Rev. 9-22-98)	Previous Report No.		Date 3/6/2014
DT-0069	Plans:	DESI	GN
Bridge No. 19I04400030	Bridge Location No.		10440 - 4.36 LL
Eleven Digit No. 1440 ove	r CRAIG AVE	Co.	Route Log Mile
Road Name	Crossing	Struct	ture Name (If Named)
Year Constructed 1985 AC	· ·		tenance District 37
Year Widened	Year Rehabilitated		
FEATURES		Ī	INSPECTORS
Wearing Surface CONCRETE	Depth (in.)		<u> </u>
Flared Width NO	Median Width OPEN	1.	HALIBURTON TL
Navigational Control NO	Bridge Skew 90 °	2.	VOGEL
		3.	BROWN
Structure Type (Main Span) HBE	3	- 4.	LOVE
Structure Type (Appr.Spans)		_ 5.	
No. Main Spans 1 No.	Approach Spans	6.	
Maximum Span Length 112'	(**.* ft.)	7.	
Total Length 112'	(**.* ft.)	8.	
WIDTHS (*.* ft.)	CLEARANCES		
Deck Out-to-Out 56'	Min. Vertical Clearance ov	er Dec	k (ftin.)
Roadway Curb/Curb	Min. Vertical Under Cleara	nce	16' 7" (ftin.)
Roadway Rail/Rail 54'	Min. Lateral Under Cleara	nce Rt.	12' (*.* ft.)
Sidewalk Rt. Lt.	Min. Lateral Under Cleara	nce Lt.	(*.* ft.)
*Approach Roadway 36' *(Does Not Include Shoulders) Approach Shoulder Rt. 12'	FRACTURE CRITICAL: 1 (If Yes, Include BIR 3.9		
Lt. 6'	NBIS Bridge Length (<25	ft. <u>) OV</u>	/ER 25' (ftin.)
UNDERWATER INSPECTION To Be Performed By: N/A	Date		
Change in Structural Condition:	NO Major Renairs Made: NO	BRI	IDGE is: OPEN

COMMENTS:

Form BIR 3.1							Pa	age No
(Rev. 9-22-98) DT-0080		Bridg	je L	ocation No. 19	- I0440 Route	- 4.36 LL Log Mile	Date 3	3/4/2016
PERFORMANCE	EVA	LUAT	101	<u> </u>				
Time of Day Ins	pecte	d 9	9:40	AM Weathe	r Condi ti d	ons CLDY 47		
Vehicles Observ	ed A	LL T	/PE	S				
LIVE LOAD BE	HAVIO	OR_						
Substructure		Yes/	No			Comments		
Horiz./ Ver	t. Def	i. No	Э					
Vibration		N	Э					
Superstructure	e							
Horiz./ Ver	t. Def	i. No	О					
Vibration		N	Э					
APPROACH	Rat	ing				Comments		
Alignment	GO	OD						
Slab	FA	IR	В.С	D.'S @ JOINT AREA 3" DP, LGH SCALE, 1/16"-1/8" OPEN CRACKS				
Joints	PO	OR	CC	NCRETE PATCHES, B.O.'S AND HEAVY FILLER LOSS				
Pavement	FA	IR	A/C	C PATCHES & B.O.'S				
Embankment	GO	OD						
Drains	GO	OD						
TRAFFIC SAFET	Y FE			Standard/				
	Г	Rati		SubStandard		Comments		
Bridgerailing	-	GO		STANDARD				
Transitions	-	GO			RUB-RAIL NON-EXISTENT; INCORRECT BLOCKOUT			CKOUTS
Guardrail	-	GO		SUBSTANDARD	INCORRE	CT BLOCKOUTS		
Guardrail Tern	ninal [GO	OD	STANDARD				
SIGNING				Yes/ No/ Nee	ded	Weight Li	mit Posted _	NO
Paddleboards				NO		Gross	<u></u>	Tons
Vertical Cleara	ance (<14'-	6")	NO		2 Axle	<u> </u>	Tons
Narrow Bridge	Narrow Bridge Signs		NO		3 or more	Axles	Tons	
One Lane Bridge Signs			NO					
Other Signs or	r Plaq	ues:						
Comments Re			у					

Form BIR 3.2							F	Page No
(Rev. 9-22-98)	Bridae	Location No.	19	- 10440	- 4.36	LL	Date	3/4/2016
DT-0081	50		Co.	Route	Log Mile		_ 2.13	
<u>DECK</u>	Rating				Comme	ents		
Wearing Surface	FAIR	1/8" OPEN TRA	ANSV. d	& LONGIT.	CRACKS AN	ID LARGE	CONE PAT	ГСН
Deck - Structural Condition	FAIR	SPALLS W/EX	P STL E	BAYS 'A', 'D	', & 'B'			
Curbs	NA							
Median	NA							•
Sidewalks	NA							
Parapet	FAIR	PITTING & H.C	C.'S & M	IOD. SCALE	-			
Railing	NA							
Paint	NA							
Drains	NA							
Lighting Standards	GOOD							
Utilities	NA							
Joint Leakage	GOOD							_
Expansion Joints	POOR	100% LOSS O	F FILLE	R. PAVED	OVER @ "A	" END		
·								
SUPERSTRUCTUR	<u>RE</u>							
Bearing Devices	GOOD							
Girders or Beams	GOOD	BMS 'A', 'C', 'D	' & 'F'-	I ONGIT H I	CRACKS			
Girders or Dearns	GOOD	BMO 71, O, B	, α ,	2011011 11.1	ON () (ON ()			
Floor Beams	NA							
Stringers	NA							_
9								
Diaphragms	NA							
Bracing	NA							
Trusses - General	NA							
1146666	1471							
Portals	NA							
Bracing	NA							
Paint	NA							
Alignment of	GOOD							
Members								
TEXTURE COAT								
Condition Rating	FAIR	Needs	Spot P	Painting	NO			
Overall Appearance	FAIR	Needs I	Repair	nting \	/ES			
Staining Rating	FAIR	— — Comme	nte			PI	RODUCED	PURSUANT TO
Fading Rating	FAIR	— Comme	1110			PU	BLIC REC	ORDS REQUEST
Scaling Rating	FAIR							wered by 23 USC §40 opursuant to a publi
- •		_				doct	ıment recor	ds request does not ovisions of §409

Form BIR 3.3	
(Rev. 9-22-98)	
DT-0082	

Bridge Location No.	19 -	10440	-	4.36	LL
	Co.	Route		Log Mile	;

Page No				
Date	3/4/2016			

SUBSTRUCTURE

ABUTMENTS	Rating	Comments
Caps	NA	
Breastwall	GOOD	RANDOM VERT/DIAG. H.C.'S
Wings	GOOD	
Backwall	GOOD	RANDOM H.L. CRACKS W/EFF
Plumb	GOOD	
Footing	NV	
Piles	NV	
Embankment	GOOD	
Bearing Surface	GOOD	
Slope Paving	NA	
Rip Rap	GOOD	SHOT ROCK
<u>PIERS</u>		
Caps		
Columns		
Plumb		
Footings		
Piles		
Bearing Surface		
BENTS		
Caps		
Columns		
Plumb		
Footings		
Piles		
Bearing Surface	-	
Piles Need Replace	ement:	
Piles To Be Replac		

SUMMARY 19-I440-4.36 LT 3/4/2016

I440 Lt. Lane/Craig Ave.

fair and standard with light scale and hair cracks.

1 Span/H.B.B.

This bridge was inspected and found to be in **fair** condition. Approach alignment is good. Approach slabs are fair with light scale and 1/8" open cracks. Approach pavement is fair with A/C patches and breakouts. Approach joints are poor with patches, breakouts, and heavy filler loss. Approach guardrail and transitions are good but substandard at 'B' end right. End terminal is good and standard. Bridge parapet rail is

The concrete wearing surface is fair due to longitudinal and transverse cracks up to 1/8" open and large concrete patch 5' x full width. Bottom deck is fair having spalls with exposed steel. Open type expansion joints are poor being paved over at "A" end, and "B" end is saw cut with heavy debris.

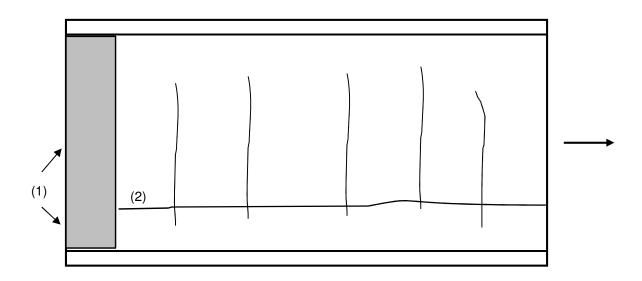
Super structure elements and sub-structure units are good. Beams 'A', 'C', 'D', and 'F' have longitudinal hair cracks.

John Haliburton

Top of Deck Span No. 1

Date 3/4/2016

Bridge Location No. 19 1440 4.36 LT County Route Log Mile



DECK	FAIR	TRANSV. CRACKS UPTO 1/8" OPEN (1) CONC. PATCHE 5' X
		FULL WIDTH, (2) LONGIT. HAIRCRACK RUNS ENTIRE LENGTH OF
		DECK
PARAPET	FAIR	STADARD- H.C.'S & LT. SCALE
JOINTS	POOR	OPEN TYPE W/FILLER-FILLER LOSS, HVY DEBRIS BLD-UP

Date_	3/4/2016
· <u>-</u>	.IB

Bridge Location No. 19 1440 4.36 LT County Route Log Mile

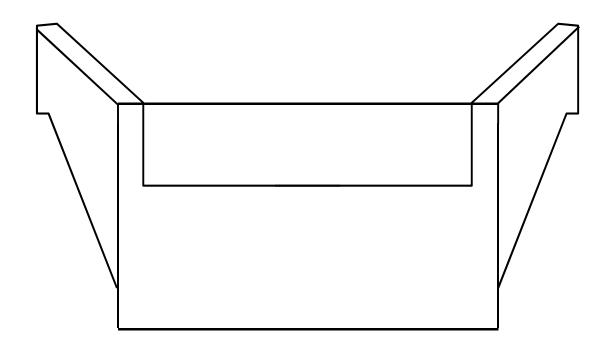
	(2)]
Α		1
В		1
	(6)	
С]
	(5) (3)	\rfloor
D	(7)	4
	(7) (1)	
Е		1
F	(4)	4
	(1)	

_		
DECK	GOOD	(6) SPALL W/ EXP. STL. 4' W X 3' L X 6" DP, END PANEL @ ABUT #1
		(7) SPALL 1.5' DIA. X 6" DP, SPALLS UP TO 6" DIA., BAYS 'A' & 'B',
		END PANELS ABUT #2
DIAPHRAGMS	GOOD	
BEAMS	GOOD	(1) H.L. CRACK ON RT. SD. OF BEAMS 'D', 'E', & 'F' UP TO 10'L BOTH
		SIDES
		(2) H.L. CRACK ON RT. SD. OF BEAM 'A' UP TO 10'L
		(3) H.L. CRACK ON SD. OF BEAM 'D' 2@ 15' LONG
		(4) H.L. CRACK ON RT. SD. OF BEAM 'A' 2@5'-6' LONG
		(5) H.L. CRACK VERT. BEAM 'C' W/ EFF.

Δ	hi	ıtm	ent	No.	
$\boldsymbol{\Gamma}$	ועו		151 II	INU.	

Date 3/4/2016

Bridge Location No. 19 I440 4.36 LT County Route Log Mile

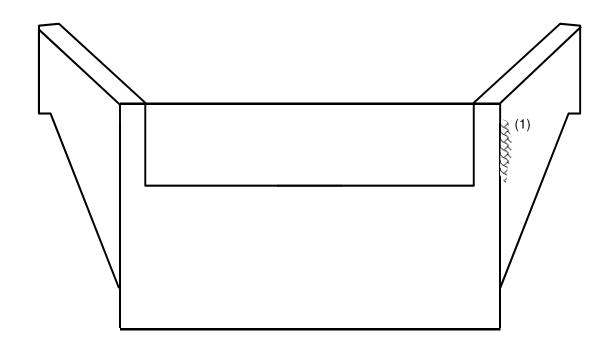


BACKWALL	GOOD	RANDOM H.C.'S W/ EFF.
WALL	GOOD	RANDOM VERT/DIAG H.C.'S
WINGS	GOOD	
BEARINGS	GOOD	

Abı	ıtm	ent	No.	2
<i>,</i> ,,,,,,,	4 L I I I	OIL		

Date 3/4/2016

Bridge Location No. 19 I440 4.36 LT County Route Log Mile



BACKWALL	GOOD	RANDOM VERT. H.C.'S
WALL	GOOD	RANDOM VERT. H.C.'S
WINGS	GOOD	(1) H.L. MAP CRACKS
BEARINGS	GOOD	



55

56

SIDE

SIDE

MINIMUM LATERAL

MINIMUM LATERAL

UNDERCLEARANCE ON RIGHT

UNDERCLEARANCE ON LEFT

Circle One: H

Underpass Condition Coding Form

Revised 03/07/2016

County:

19

										Route:	0F006
B	ridge Number:		191	044000	0302			1		Special Case:	0
	ludes Item 5A)		-							County Sequence:	1
Featu	re Intersected:]	440-LI	./ CRA	AIG AV	'Е.				Log Mile:	0.15
CODE	ONLY THOSI	E VALUES	WHIC	CH HA	VE (CHAN	GED	1			
TEM#	DESCRIPTION					VALU	E		UN	DERPASS SAFETY FEA	TURES
90	LAST INSPECTION EARLIEST DATE NEXT REGULAR INSPI	OF				3/04/20 1/03/20 / /]]	515	(A) TYPE UNDERPASS BANONE NEEDED OF APPLICABLE	RNOT
10	MINIMUM V.C. (OVER			16	FT.	7	IN.		Revised Barrier Ty	pe
	DECK (ROADWAY + SH	OULDERS)		_		FT		IN.		(B) ADEQUACY OF BARRIER OR RAIL	N
520	MINIMUM V.C. (EXCLUDES SHO				16	FT.		IN.		BARRIER OR RAIL	
47	TOTAL	<i>(CLDERS)</i>		_	60	FT		IN.		(C) ADEQUACY OF TRANSITIONS	N
	HORIZONTAL UNDERCLEARA	NCE		_		FT		IN.			
54	MINIMUM VERT		CLEAR	RANCE						(D) ADEQUACY OF TERMINALS	N
		Circle One:	н н	<u> </u>		FT		IN.			
									554	VERTICAL CLEARANCE LISTED ON HEIGHT	

521 OVERALL CONDITION

FAIR

HEIGHT POSTED AT
BOTH
NO[]
APPROACHES?
N/A[]

_____ FT. ____ IN.

FT. ____ IN.

555 COMMENTS

FT.

FT.

IN.

IN.

17 LONGITUDE

W 86° 47.0190′

POSTING

LATITUDE

N 36° 6.9590′

16

Page 1 of 2 INSPECTIO	N REF	ORT I	FOR L	JNDER	PASS	ROI	<u>JTE</u>	Pag	ge No
Form BIR 3.0A			F	ield Repo	ort No.	21	Dat	e 3/4	4/2016
(Rev. 9-22-98)				ous Repo			-	e 3/0	6/2014
DT-1443					_		_		
Bridge No. 19104400030		į	Underp	ass Loca	ion No <u>.</u>				0.15
Eleven Digit No.	40	1440	0.400			Co.	Rou		Log Mile
I440 LL/CRAIG AVE OI Railroad/Walkway	19 - Co.	Route	- 0436 Log Mi	<u>LL</u>	over _	19 Co.	- F00 Rou		0.15
County Davidson	CO.		_	ne (If Nam	ned)		Rou	le	Log Mile
	CTUAL	Sirucio	iic ivaii	ie (ii ivaii	<u> </u>				
	CIUAL		or Dob	hilitatad					
Year Widened		1e	ai Rena	abilitated					_
GEOMETRIC FEATURES UND	ER BRID	<u>DGE</u>	(*.* ft. u	nless oth	erwise r	noted,)		
Divided Highway N	Д			Type of	Wearing	g Surf	face	AS	PHALT
Width of Approach Traveled Ro	adwa <u>y</u>	36'	ft.	(Does N	ot Inclu	de Sh	oulder	s)	
Width of Median if Divided High	way		ft.						
Approach Shoulder Width		2' ft. Right 2' ft. Left			Left				
*Horizontal Clearance Under Br	idge	61'	ft.						
*Distance Between Pier Protect Guardrail and Substructure	ion			Diabt			τι	l off	
		ft. Right				Left			
*Width of Sidewalk Under Bridg	e	5'		Right	-	5'	<u> </u>	Left	
*Minimum Vertical Clearance:	_	16'	_ ft	<u>7"</u> in.	(ftin	.)			
*Show on Sketch						Ī	<u>IN</u> :	SPEC	TORS
TRAFFIC SAFETY FEATURES		Rating Standard/ SubStandard Non Exist			1.	HA	LIBUF	RTON TL	
Pier Protection Railing or Pa	rapet		NOI	NEXIST		2.		VOC	GEL
Approach Guardrail Termina	ls		NOI	NEXIST		3.		BRO	WN
Approach Guardrail			NOI	NEXIST		4.		LO'	VE
Approach Guardrail Termina	l		NOI	NEXIST		5.			
		lo/ Needed			J	6.			
SIGNING Daddlabaarda						I			
Paddleboards		NO							
Vertical Clearance (<14'-6")		NO							
Narrow Passage	NO								

NO

One Lane Passage

Other Underpass Signs Needed

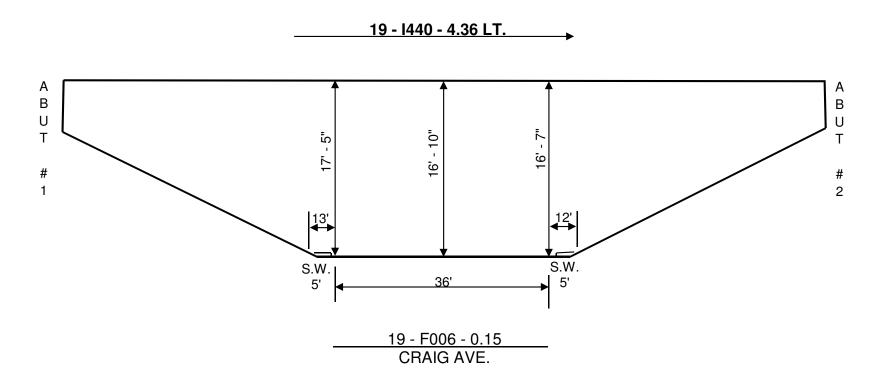
Page 2 of 2	Page No
Form BIR 3.0A (Continued)	Date 3/4/2016
(Rev. 9-22-98) DT-1443	Underpass Location No. 19 - F006 - 0.15 Co. Route Log Mile
Other Signs or Plaques:	CO. Route Log Mille
Comments Regarding any Problems with Signing:	
BRIDGE FEATURES (*.* ft.)	
Bridge Skew 90 °	Number of Lanes/Tracks on Bridge 3
Structure Type (Main Span) HBB	No. Main Spans 1
Structure Type (Appr.Spans)	No. Appr. Spans
Maximum Span Length 112'	(ft.) Total Length 112' (ft.)
Width of Bridge Out-to-Out 56'	(ft.) Right Angle to Centerline of Bridge)
Width of Bridge Along Skew	(ft.) (If Unable to Measure at Right Angle to Centerline of Bridge)
BRIDGE CONDITION: FAIR	
Does Potential Exist for Elements from Brid	dge Falling on Roadway Beneath? NO_
Does Potential Exist Because of Deteriora	ted Condition or Failure of Major Members? NO
Comment on any Conditions of Bridge that	t would Effect Roadway Beneath:

Note: If Underpass Route is Divided Highway, Use Two of These Forms, One for Each Roadway.

MINIMUM PICTURES REQUIRED

- Elevation View of Bridge on Both Sides Showing Underpass
 View Showing Both Approaches to Bridge
- 3. View Showing Safety Features
- 4. View Showing Any Problems

Bridge Location No. 19 1440 4.36 LT County Route Log Mile



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