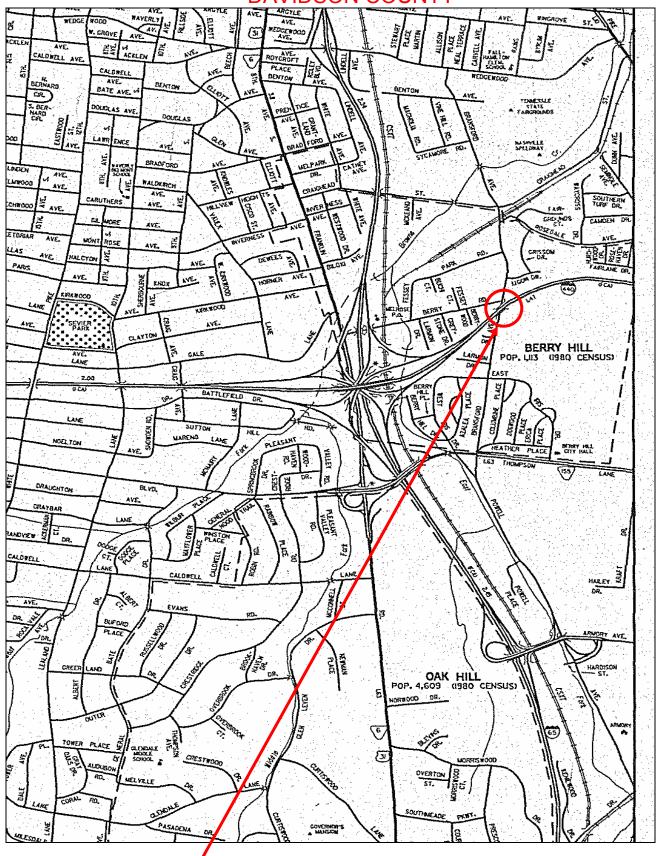
DAVIDSON COUNTY



19I04400041 19-I0440-5.44 I0440/BRANSFORD 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-I0440-05.44-

CO. SEQ.: 1 SPEC. CASE: 0

MILEPOST: 5.38

CROSSING: 1440 / BRANSFORD AVE

FED. BRIDGE NO.: 19104400041



N

REPAIR LIST NO.:

DATE ADDED:

MAINT. DIST.: 19				REVISED: 03/	07/2014
FACILITY CARRIED:			I440	NUMBER OF MAIN SPANS:	1
HIGHWAY SYSTEM:	TERSTATE	URBAN	NUMBER OF APPROACH SPANS:	0	
BRIDGE WIDTH (CURB TO CURB):		134 FT	10 IN	BRIDGE LENGTH (FT):	172
BRIDGE WIDTH (OUT TO OUT):	137 FT	1 IN	MAXIMUM SPAN LENGTH (FT):	100	
APPROACH ROADWAY (W/SHOULDERS)	:	133 FT	10 IN	SKEW ANGLE (DEGREES):	38
MAINTAINED BY: MAIN SPAN MATERIAL: MAIN SPAN DESIGN TYPE: APPROACH SPAN MATERIAL: APPROACH SPAN DESIGN TYPE:		вох	OTI	STATE HIGHWAY AGENCY CONCRETE OR GIRDERS - MULTIPLE HER OR NOT APPLICABLE HER OR NOT APPLICABLE	
INSPECTION DATE: 03/0	8/2016		G	GENERAL CONDITION:	FAIR
EVALUATION DATE: 05/0	8/2014		S	TRUCTURALLY DEFICIENT:	NO
PPRM PIN NUMBER:					
H TRUCK RATING @ INV.: 2	0 TONS		S	SUFFICIENCY RATING:	83.0
	_				

No.	RECOMMENDATIONS	REPAIR DATE	REPAIRED BY
1.	REPAIR CONCRETE WEARING SURFACE 'B' END E.B.L. & 'A' END W.B.L.		
2.	REPAIR APPROACH ROADWAY 'A' AND 'B' ENDS		
3.	REPAIR APPROACH SLABS		
4.	REPAIR APPROACH PARAPET RAIL 'A' END E.B.L. & MID SPAN W.B.L.		

SUGGESTED ROUTINE MAINTENANCE AND COMMENTS
SEAL CRACKS IN CONCRETE BEAM
STABILIZE WINGWALL AT ABUTMENT #1
CLEAR APPROACH DRAIN "B" END RT



Bridge Condition Coding Form

Revised 03/08/2016

County: 19 DEPARTMENT OF TRANSPORTATION **Route: I0440** Bridge Number: 19I044000411 (Includes Item 5A) **Special Case:** 0 **Feature Intersected:** I440 / BRANSFORD AVE **County Sequence:** 1 Log Mile: 5.44 **Evaluation Status:** CONDITION ITEM CHANGE

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

TEM#	DESCRIPTION	V	ALUE		
90	LAST INSPECTION DATE	03	/08/20	16	1
	EARLIEST DATE OF	01	/07/20	18	1
	NEXT REGULAR INSPECTION		/ /		
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99	FT	99	IN IN
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99	FT	99	IN IN
36	TRAFFIC SAFETY FEATURES Br. Rail Trans. Appr. Rail Te 1 0 0	ermina N	l SPE	EED L1 55	IMI
41	STRC OPEN/CLOSED/POSTED A K P		A		
58	DECK		5		
59	SUPERSTRUCTURE		6		
60	SUBSTRUCTURE		6		
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 LONGITUE N 36° 7.1820′ W 86° 45.9590				_
	FAM LEADER SIGNATURE		/ REVIEW	/ V DATI	· F

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 8409

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



APPROACH "B" END EBL



APPR. "B" END JOINT W/ TORN FILLER EBL



VIEW ACROSS TOP OF WEARING SURFACE EBL



APPROACH "A" END EBL



APPR. "B" END ROADWAY W/ PATCHES EBL



APPR. "A" END ROADWAY W/ PATCHES EBL



BRIDGE PARAPET "A" RT. W/ IMPACT DAMAGE EBL



APPROACH "A" END WBL



APPR. "A" END ROADWAY W/ PATCHES WBL



VIEW ACROSS TOP OF WEARING SURFACE WBL



APPROACH "B" END WBL



APPR. "B" END JOINT W/ TORN FILLER WBL



BRIDGE PARAPET "B" LT . W/ IMPACT DAMAGE WBL



BRIDGE PARAPET LT. SIDE W/ IMPACT DAMAGE WBL



APPR. "A" END RT. SIDE W/ EROSION EBL



ABUTMENT #1



ABUTMENT #1 WALL W/ PATCHES AND SPALLS



BRIDGE NO.



IMPACT DAMAGE APPR. "A" END RT. SIDE EBL



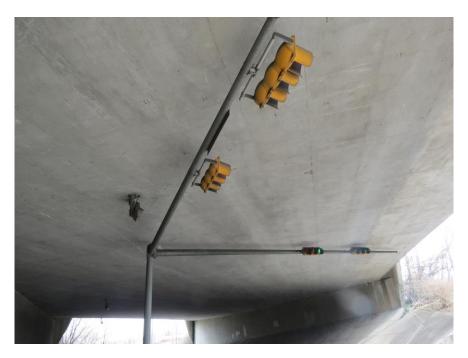
RT. WING ABUT. #1 W/ TILT & MISALIGNED



CLEARANCE VIEW RT. SIDE



VIEW LOOKING SOUTH ON BRANSFORD AVE.



UNDERSIDE VIEW OF H.B.G.



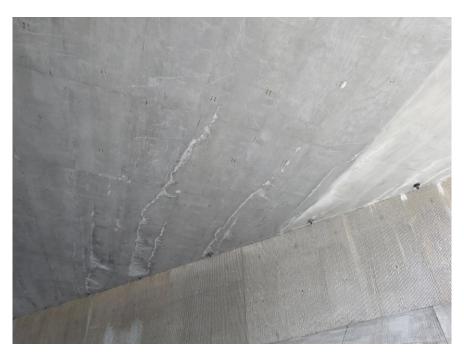
UNDERSIDE OF H.B.G W/ OPEN CRACKS & EFF.



VIEW LOOKING NORTH ON BRANSFORD AVE.



CLEARANCE VIEW LT. SIDE



UNDERSIDE AT ABUT. #2 W/ OPEN CRACKS & EFF.



GUARDRAIL AT APPR. "B" END RT. W/ RUST EBL

BRIDGE IN	SPECTION REPORT		Page No	
Form BIR 3.0	Field Report No.	19	Date 3/8/2016	
(Rev. 9-22-98)	Previous Report No.		Date 3/7/2014	
DT-0069	Plans:	DESI	GN	
Bridge No. 19104400041	Bridge Location No.	19 -		
Eleven Digit No.	VDDANICEODD AVE	Co.	Route Log Mile	
1440 Over 1440	/BRANSFORD AVE. Crossing	Struct	ture Name (If Named)	
Year Constructed 1985 ACTUAL	County Davidson		tenance District 37	
Year Widened	Year Rehabilitated			
FEATURES		ı	INCRECTORS	
Wearing Surface CONCRETE	Depth (in.)		<u>INSPECTORS</u>	
	· · · · ·	1.	BILLINGSLEY TL	
	dian Width 20'	2.	VOGEL	
Navigational Control NO Brid	dge Skew38°	3.	BROWN	
Structure Type (Main Span) HBG		4.	LOVE	
Structure Type (Appr.Spans)		5.		
No. Main Spans <u>1</u> No. Appro	ach Spans	6.		
Maximum Span Length 100 (**	.* ft.)	7.		
Total Length 172' (**	.* ft.)	8.		
WIDTHS (*.* ft.)	CLEARANCES	·		
Deck Out-to-Out 141'	Min. Vertical Clearance ov	er Dec	k 20'-7" (ftin.)	
Roadway Curb/Curb	Min. Vertical Under Cleara		16' 9" (ftin.)	
Roadway Rail/Rail	Min. Lateral Under Cleara			
Sidewalk Rt Lt	Min. Lateral Under Cleara	nce Lt.		
*Approach Roadway 36' *(Does Not Include Shoulders) Approach Shoulder Rt. 10' Lt. 6' *RACTURE CRITICAL: NO (If Yes, Include BIR 3.9) NBIS Bridge Length (<25 ft.) OVER 25' (ftin.)				
UNDERWATER INSPECTION To Be Performed By: N/A	Date			
Change in Structural Condition: NO	Maior Repairs Made: NO	BRI	IDGE is: OPEN	

COMMENTS:

Form BIR 3.1 (Rev. 9-22-98) DT-0080	E	Bridge I	Location No. 19		- 5.44		Page No 3/8/2016
Co. Notice Log Wille							
PERFORMANCE							
Time of Day Ins	<u>-</u> '			er Condition	ons SUNNY 65		
Vehicles Observ	ed AL	LIYP	ES				
LIVE LOAD BE	HAVIO	<u>R</u>					
Substructure		Yes/No			Comments		
Horiz./ Ver	t. Defl.	NO					
Vibration		NO					
Superstructure	9						
Horiz./ Ver	t. Defl.	NO					
Vibration		NO					
<u>APPROACH</u>	Ratin	g			Comments		
Alignment	GOO	D					
Slab	POO	R H	VY CRACKS UP TO	3/8" & BREA	KOUTS		
Joints	GOO	D 0	PEN TYPE W/BITUM	PEN TYPE W/BITUMINOUS FILLER			
Pavement	POO	R M	IOD CRACKS & LIGH	DD CRACKS & LIGHT SETTLEMENT			
Embankment	GOO	D					
Drains	POO	R 1	00% CLOGGED "B" END RT				
TRAFFIC SAFET	Y FEA	TURES Rating	Standard/ SubStandard		Comments		
Bridgerailing		FAIR	STANDARD	3/16" OPE	N CRACKS & IMPAC	T DAMAGE 'A	4' END RT & MI
Transitions		GOOE	SUBSTANDARD	NO RUB-F	RAILS "B" END ONLY.	METAL BLO	OCKOUTS
Guardrail GOOD		SUBSTANDARD	METAL BL	OCKOUTS "B" END	ONLY		
Guardrail Terminal NA							
SIGNING			Yes/ No/ Nee	ded	Weight Li	imit Posted	I NO
Paddleboards		NO		Gross		Tons	
Vertical Clearance (<14'-6")			NO		2 Axle		Tons
Narrow Bridge	Signs		NO		3 or more	Axles	Tons
One Lane Brid	lge Sig	ns	NO				
Other Signs or	Plaqu	es:					

Comments Regarding any Problems with Signing:

Form BIR 3.2			Page No
(Rev. 9-22-98) DT-0081	Bridge	Location No. 19 - 10440 - 5.44 Co. Route Log Mile	Date 3/8/2016
DECK	Rating	Commer Commer	nts
Wearing Surface	FAIR	CONCRETE- HVY CRACKING TO 3/8" OPEN A IMPENDING POTHOLES, RANDOM A/C PATC	
Deck - Structural Condition	FAIR	(BTMN/V) HBG. OVERHANGS GOOD-DIAG.	CRACKS W/FF.
Curbs	NA		
Median	GOOD	GRASS	
Sidewalks	NA		
Parapet	FAIR	IMPACT SPALLS UP TO 5'L LT SIDE,3/16" OPL	EN CRACKS A LT.
Railing	NA		
Paint	NA		_
Drains	NA		
Lighting Standards	GOOD		
Utilities	NA		
Joint Leakage	GOOD		
Expansion Joints	GOOD	OPEN TYPE W/BITUMINOUS FILLER	
SUPERSTRUCTUR			
Bearing Devices	GOOD		
Girders or Beams	FAIR	RANDOM, LONGIT CRACKS UP TO 1/16" OPE IMPACT SCRAPES	N W/HVY EFFL, RANDOM
Floor Beams	NA		
Stringers	NA		
Diaphragms	NV		
Bracing	NA		
Trusses - General	NA		
Portals	NA		
Bracing	NA		
Paint	NA		
Alignment of Members	GOOD		
TEXTURE COAT			
Condition Rating	FAIR	Needs Spot Painting NO	
Overall Appearance		Needs Repainting YES	
Staining Rating	FAIR	_ · · · <u> — </u>	DRODUCED DURGE AND TO
Fading Rating	FAIR	Comments	PRODUCED PURSUANT TO PUBLIC RECORDS REQUEST
Scaling Rating	FAIR	_	This document is covered by 23 USC §40
Scaling Rating	FAIR	_	And its production pursuant to a public

document records request does not waive the provisions of §409

Form BIR 3.3					
(Rev. 9-22-98)	Bridge Location No.	19	- 10440	- 5.44	Da
DT-0082	_	Co.	Route	Log Mile	<u> </u>

F	Page No	
ate	3/8/2016	

SUBSTRUCTURE

ABUTMENTS	Rating	Comments
Caps	NA	
Breastwall	FAIR	SPALLS, ABUT #1-SPALLS, CRACKS, FAILED PATCHES, VERT. CRACKS UP TO 1/16" OPEN
Wings	POOR	ABUT #1 RT WING HAS 3" SEP & TILT
Backwall	NV	
Plumb	GOOD	
Footing	NV	
Piles	NV	
Embankment	GOOD	
Bearing Surface	GOOD	
Slope Paving	GOOD	
Rip Rap	NA	
<u>PIERS</u>		
Caps	NA	
Columns		
Plumb		
Footings		
Piles		
Bearing Surface		
BENTS		
	NA	_
Caps	INA	
Columns		
Plumb		
Footings		
Piles		
Bearing Surface		
Piles Need Replace	ement:	
Piles To Be Replace		
T 1100 TO DO NOPIAO	ou.	

SUMMARY 19-I440-5.44 3/8/2016

I440 / Bransford Ave.

1 Span / H.B.G.

This bridge was inspected and found to be in **fair** condition. Approach alignment is good. Approach pavement is poor with large pattern cracks and delamination at the "A" end in left lane, longitudinal cracks, breakouts in patched areas and settlement in right lane at "B" approach. Bridge parapet rail is poor with moderate-heavy impact damage left side on top of parapet and 'A' end right. Approach parapet is fair but standard due to 3/16" vertical cracks, 6" deep spall with exposed steel "A" end right, and impact damage at 'B' end E.B.L. Approach guardrail and transitions are good but substandard.

Concrete wearing surface is fair with heavy cracking up to ¼" open 'A' and 'B' ends. Open type expansion joints with filler are good.

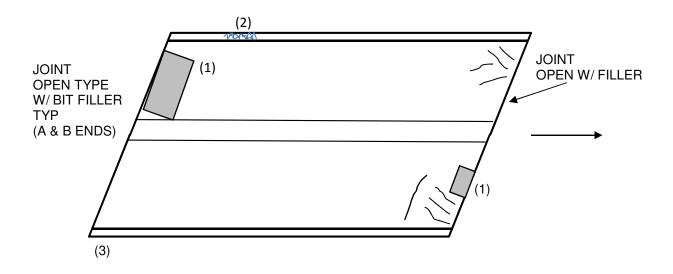
Beams are fair with hair cracks with leaching. Alignments of members are good.

Abutments are fair with failing concrete patches spalls, and cracks at abutment #1. Abutment #1 right wing is poor with 3" separation and tilt. Embankment and other areas are good.

Geremy Billingsley

Top of Deck Span No. 1

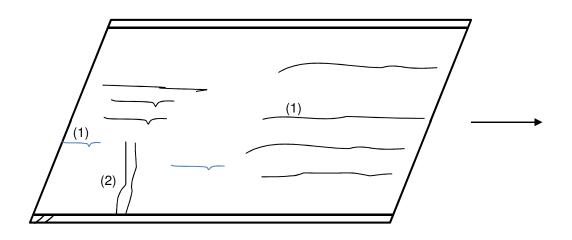
Date 3/8/2016 GB



PARAPET	FAIR	(2) IMPACT DAMAGE, B.O. 3'L X 5"DP,
		(3) IMPACT DAMAGE 5'L X 3' X 6"DP W/EXP. STL.
JOINTS	GOOD	OPEN TYPE W/BITUMINOUS FILLER

Bottom of Slab Span No. 1

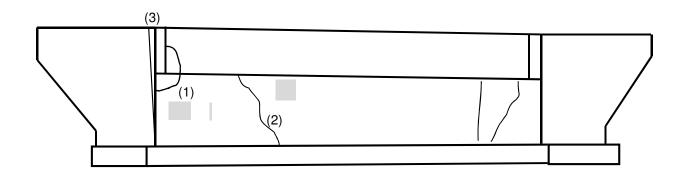
Date 3/8/2016



DECK	NV	
OVERHANG	GOOD	DIAG. H.C.'S W/EFF. @ ABUT #1 RT. SIDE
BEAM	FAIR	(2) COLLISION SCRAPES < 1/16", (1) LONGIT. CRACKS W/EFF. UP TO
		1/16" OPEN UP TO 30'L
LIGHTS	GOOD	

Abutment No. 1

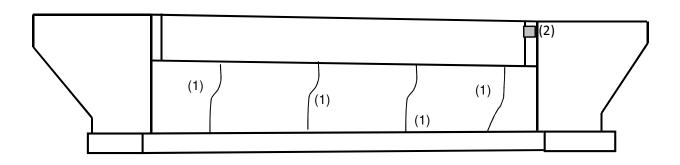
Date 3/8/2016



BACKWALL	NV	
WALL	FAIR	(1) SPALL, FAILED PATCH 3'L X 1'H X 6" DP, (2) FULL HEIGHT H.L.
		CRACKS @ REPAIRS, RDM SPALLS UP TO 1.5'L X 8" H X 1" DP
	2002	
WINGS	POOR	(3) HORZ. MISALIGNMENT 3" SEPARATION & TILT
FOOTING	NV	
BEARINGS	NV	
SLOPE PVT	GOOD	

Abutm	ent	Nο	2
/ W ULLII	CIIL	I VO.	_

Date 3/8/2016



BACKWALL	NV	
WALL	GOOD	(1) VERT. CRACKS UP TO 1/16" OPEN (RANDOM) FULL HEIGHT,
		(2) SPALL 3' L X 1.5' H X 2" DP
WINGS	GOOD	RANDOM MAP CRACKS
FOOTING	NV	
BEARINGS	NV	
SLOPE PVT	GOOD	



56

SIDE

MINIMUM LATERAL

UNDERCLEARANCE ON LEFT

Underpass Condition Coding Form

Revised 03/08/2016

County: 19 DEPARTMENT OF TRANSPORTATION **Route:** 04163 **Special Case:** 0 **Bridge Number:** 19I044000412 (Includes Item 5A) **County Sequence:** 1 **Feature Intersected:** 1440 / BRANSFORD AVE. Log Mile: 0.92 CODE ONLY THOSE VALUES WHICH HAVE CHANGED ITEM # DESCRIPTION **VALUE** UNDERPASS SAFETY FEATURES 90 LAST INSPECTION DATE 03/08/2016 **EARLIEST DATE OF** 515 (A) TYPE UNDERPASS BARRIER 01/07/2018 **NEXT** NONE NEEDED OR NOT REGULAR INSPECTION APPLICABLE MINIMUM V.C. OVER 16 FT. 10 3 IN. **Revised Barrier Type** FT. __ (ROADWAY + SHOULDERS) (B) ADEQUACY OF Ν **BARRIER OR RAIL** MINIMUM V.C. OVER DECK 16 FT. 520 3 IN. (EXCLUDES SHOULDERS) FT. IN. (C) ADEQUACY OF N **TRANSITIONS** 47 **TOTAL** 49 FT. 10 IN. **HORIZONTAL** FT. IN. **UNDERCLEARANCE** (D) ADEQUACY OF N MINIMUM VERTICAL UNDERCLEARANCE **TERMINALS** (EXCLUDES SHOULDERS) FT. ____ IN. Circle One: H R **VERTICAL CLEARANCE** LISTED ON HEIGHT **POSTING** MINIMUM LATERAL 55 FT. IN. UNDERCLEARANCE ON RIGHT SIDE FT. IN. Circle One: H R _____ FT. ____ IN.

521 OVERALL CONDITION

FAIR

HEIGHT POSTED AT
BOTH
NO[]
APPROACHES?
NALL

FT. ___

555 COMMENTS

17 LONGITUDE

W 86° 45.9590′

N/A []

LATITUDE

N 36° 7.1820′

16

Page 1 of 2 INSPECTIO	N REF	ORT FO	DR L	INDERP	ASS F	ROU	<u>TE</u>	Page No
Form BIR 3.0A	Field Report No. 19 Date 3/8/2016						3/8/2016	
(Rev. 9-22-98)			Previ	ous Repo	rt No. 1	8	Date	3/7/2014
DT-1443								
Bridge No. 19I04400041		Ur	nderpa	ass Locati	on No.	19 -	4163	- 0.92
Eleven Digit No.						Co.	Route	Log Mile
	19 -	l440 -	0544		over	19 -	4163	- 0.92
Railroad/Walkway	Co.	Route	Log Mi	le	(Co.	Route	Log Mile
CountyDavidson		Structure	Nam	ne (If Name	ed)			
Year Constructed 1985 A	CTUAL							
Year Widened		Year	Reha	abilitated _				
GEOMETRIC FEATURES UND	ER BRID	OGE (*.	* ft. u	nless othe	rwise no	oted)		
Divided Highway N		()	Type of Wearing Surface CONCRE					
Width of Approach Traveled Ro		 24	ft.	(Does No	Ū			
Width of Median if Divided High			— ft.	(2000)			,	
Approach Shoulder Width		 10 ft. Right 6 ft. Left			ft			
*Horizontal Clearance Under Br	idge	50' 0"	— ft.				_	
*Distance Between Pier Protect	<u> </u>							
Guardrail and Substructure			ft.	Right			ft. Le	ft
*Width of Sidewalk Under Bridg	<u>—</u>		ft.	Right			- ft. Le	ft
*Minimum Vertical Clearance: 16			t.	3 in.	(ftin.)		_	
*Show on Sketch	_					1	INISE	ECTORS
TDAFFIC SAFETY FEATURES		Standard/ SubStandard			andard			
TRAFFIC SAFETY FEATURES		Rating Non Exist			1		NGSLEY TL	
Pier Protection Railing or Parapet		NON EXIST			2		/OGEL	
Approach Guardrail Terminals		NON EXIST			3	В	ROWN	
Approach Guardrail		NON EXIST			4		LOVE	
Approach Guardrail Terminal		NON EXISIT			5.			
		o/ Needed				6.		
Paddleboards		NO				Ī		
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 3/8/2016
(Rev. 9-22-98)	Underpass Location No. 19 - 4163 - 0.92
DT-1443	Co. Route Log Mile
Other Signs or Plaques:	
Comments Regarding any Problems with Signing:	
BRIDGE FEATURES (*.* ft.)	
Bridge Skew 38 °	Number of Lanes/Tracks on Bridge 6
Structure Type (Main Span) HBG	No. Main Spans 1
Structure Type (Appr.Spans)	No. Appr. Spans
Maximum Span Length 100	(ft.) Total Length 172' (ft.)
Width of Bridge Out-to-Out 141'	(ft.) Right Angle to Centerline of Bridge)
Width of Bridge Along Skew 38	(ft.) (If Unable to Measure at Right Angle to Centerline of Bridge)
BRIDGE CONDITION: FAIR	
Does Potential Exist for Elements from B	Bridge Falling on Roadway Beneath? NN
Does Potential Exist Because of Deterior	rated Condition or Failure of Major Members? N
Comment on any Conditions of Bridge th	at would Effect Roadway Beneath:

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

MINIMUM PICTURES REQUIRED

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

