



Structure Inventory and Appraisal

Bridge ID: STOCKHOLM-130233
FHWA No.: 130233

Official	SR: 88.2	SD/FO: Not Deficient or Obsolete
Unofficial	SR: 91.9	SD/FO: Not Deficient or Obsolete

IDENTIFICATION

7 Facility Carried: LOCAL
 5B Rte. Signing Prefix: 4
 5C Level of Service: 1 - MAINLINE
 5D Inventory Route: 00000
 City: RURAL
 3 County: 024 - Crawford
 9 Location: 085382803
 5E Directional Suffix: 0 - NOT APPLICABLE
 6 Feature Intersected: SMALL STREAM
 2 District: 0
 Garage: 000
 98 Border Bridge Code:
 % Responsibility: 0
 99 Border Bridge No.:

INSPECTION

90 Inspection Date: 03/30/2016 Inspection Type: N/A
 Next Routine Insp Date: 03/30/2018 91 Frequency: 24
 Next Insp Type: Regular
 Inspection Agency: 5 - Consultant Inspection Group: Crawford County
 93A FC Inspection Date:
 92A FC Frequency: 0 Next FC Insp.: NA
 93B UW Inspection Date:
 92B UW Frequency: 0 Next UW Insp.: NA
 93C SI Date:
 92C SI Frequency: 0 Next Spec. Insp.: NA
 Other Non-NBI Date:
 Other Non-NBI Freq.: Next Other Insp.: NA

STRUCTURE TYPE AND MATERIALS

43A Main Span 3 - Steel
 43B Main Span Design: 02 - Stringer/Multi-beam or Girder
 45 No. Spans Main Unit: 1
 44A Appr. Span 000 - NA
 44B Appr. Span Design: 000 - NA
 46 No. of Appr. Spans: Near 0 Far 0
 107 Deck Type: 8 - Wood or Timber
 108A Wearing Surface: 7 - Wood or Timber
 108B Membrane: 0 - None
 108C Deck Protection: 0 - None

CONDITION

58 Deck: 6 - Satisfactory Condition (minor deterioration)
 59 Super: 6 - Satisfactory Condition (minor deterioration)
 60 Sub: 6 - Satisfactory Condition (minor deterioration)
 61 Channel/Channel Prot.: 5 - Bank eroded.. major damage
 62 Culvert: N - Not Applicable

GEOMETRIC DATA

48 Length Max Span: 42 ft.
 49 Structure Length: 42 ft.
 34 Skew: 0°
 Deck Area: 1008.0 sq. ft.
 50B Curb/Sdwb Width R: 0 ft.
 50A Curb/Sdwb Width L: 0 ft.
 51 Width Curb to Curb: 24.0 ft.
 52 Width Out to Out: 24.0 ft.
 32 Appr. Roadway width: 0 ft.
 (w/ Shoulders)
 33 Median: 0 - No median
 35 Structure Flared: 00 - No flare
 10 Vertical Clearance: 99'99"
 47 Horiz. Clearance: 24'00"
 53 Min. Vert. Clearance Over: 99'99"
 54B Min. Vert. Underclearance: 00'00"
 55 Min. Lat. Underclearance R: 00'00"
 56 Min. Lat. Underclearance L: 00'00"

APPRAISAL

67 Str. Evaluation: 6 - Equal to present minimum criteria
 68 Deck Geometry: 6 - Equal to present minimum criteria
 69 Underclear Vert & Horiz: N - Not applicable
 71 Waterway Adequacy: 8 - Bridge Above Approaches
 72 Approach Alignment: 7 - Better than present minimum criteria
 36A Bridge Rail: 0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED.
 36B Transition: 0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
 36C Approach Rail: 0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
 36D Approach Rail Ends: 0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
 113 Scour Critical: 8 - Stable - Excellent Condition

NAVIGATION DATA

38 Navigation Control:
 0 - No navigation control on waterway (bridge permit not required)
 111 Pier Protection:
 39 Vertical Clearance: 00'00"
 40 Horiz. Clearance: 000'00"

LOAD RATING AND POSTING

31 Design Load: 5 - HS 20
 63 Rating Method: 2 - Allowable Stress (AS) reported in english tons using HS-20 loading.
 64 Operating Rating: 34.7 Tons
 65 Rating Method: 2 - Allowable Stress (AS) reported in english tons using HS-20 loading.
 66 Inventory Rating: 28.8 Tons
 70 Posting: 5 - Equal to or above legal loads
 41 Posting Status: A - Open

16 Latitude: 42.150917 17 Longitude: -95.27752516

AGE AND SERVICE

27 Year Built: 2006 Design No.: 0
 106 Year Reconstructed: 0
 42A Type of Service on: 1 - Highway
 42B Type of Service Under: 5 - Waterway
 28A Lanes on: 2 28B Lanes under: 0
 29 ADT: 15 30 Year of ADT: 2012
 109 Truck ADT: 0% Speed Limit: 55
 19 Detour Length: 4 mi.

FRA No. (if RR Bridge):
Mile Post:

CLASSIFICATION

112 NBIS Length: Y
 26 Functional Class: 09 - Rural - Local
 100 STRAHNET: 0 - Not a defense highway
 101 Parallel Structure: N - No parallel structure
 102 Direction of Traffic: 2 - 2-way traffic
 22 Owner: 02 - County Highway Agency
 21 Custodian: 02 - County Highway Agency
 37 Historical Significance: 3 - May be eligible for National Register
 75A Type of Work Proposed:
 75B Work Done by:



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INSPECTION

90 Inspection Date: 03/17/2014
 Next Routine Insp Date: 03/17/2016
 Inspection Agency: 5 - Consultant
 93A FC Inspection Date:
 92A FC Frequency: 0
 93B UW Inspection Date:
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Inspection Type: N/A
 91 Frequency: 24
 Next Insp Type: Regular
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 108C Deck Protection: 0 - None

CONDITION

58 Deck: 7 - Good Condition (some minor problems)
 59 Super: 7 - Good Condition (some minor problems)
 60 Sub: 9 - Excellent Condition
 61 Channel/Channel Prot.: 7 - Bank protection needs minor repairs
 62 Culvert: N - Not Applicable

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 75B Work Done by:

Crawford County Day Labor Bridge Construction

Prepared By: TERRY LALLY

Date: 12-18-06

Township: STOCKHOLM

Section: 28

E911 Rd.:

FHWA No.: 130232

Date Reconstructed: JUNE 06

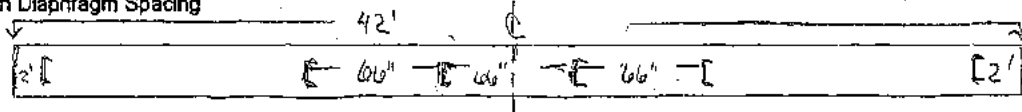
Describe Work: Replaced old bridge with a 24' x 42" I beam bridge

Bridge Length: <u>42'</u>	Bridge Width: <u>24'</u>	Open Depth: <u>10'</u>				
Beam Info.	Deck Info.	Diaphragm Info.				
Beam Type: <u>W (S)</u>	Deck Type: <u>Plank</u>	# Bolts per Angle: <u>3</u>				
Beam Spacing: <u>39" C-C</u>	Top: <u>3" x 12" Longitudinal</u>	Bolt Size: <u>7/8" x 2 1/2"</u>				
Beam Depth: <u>24"</u>	Bottom: <u>4" x 16" Transverse</u>	Diaphragm Length: <u>38 1/2"</u>				
Flange: <table style="display: inline-table; border: none; vertical-align: middle;"><tr><td style="padding: 0 5px;">Width</td><td style="padding: 0 5px;">Thickness</td></tr><tr><td style="text-align: center;"><u>6 3/4"</u></td><td style="text-align: center;"><u>3/4" x 1"</u></td></tr></table>	Width	Thickness	<u>6 3/4"</u>	<u>3/4" x 1"</u>	Spacing on Bottom: <u>27" C-C</u>	Diaphragm Size: <u>10"</u>
Width	Thickness					
<u>6 3/4"</u>	<u>3/4" x 1"</u>					
Web Thickness: <u>1/2"</u>						

Deck X-section With Beam Spacing



X-section With Diaphragm Spacing



Substructure Comments: 6 - 50' x 10" x 10" H per abutment

Comments:

Project Number: LB58-28N WOLFORD COUNTY DAY LABOR PROJECT SHEET Date: July 19, 2006

Location: 140606s Section: 28 Township: Stockholm

Description of Work: Replace old bridge with a new 24" I beam bridge with wings. FHWA No: 130232
 For the month of: June Bridge Type: I beam

Employee	Hours worked per day																															Total Hours	Hourly Rate	Totals	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
Terry Lally								8				8	8	8		8			8	8	8	8	8				8	8	8	8	4	116	\$ 36.58	\$4,243.28	
Dan Blunk								8				8	8	8		8			8	8	8	8	8				8	8	8		104	\$ 33.49	\$3,482.96		
Howard Clark								8				8	8	8		8			8	8	8	8	8				8	8	8	8	4	116	\$ 28.40	\$3,294.40	
Blake Deiber												8	8	8		8			8	8	8	8	8					8	8	8	4	92	\$ 25.46	\$2,342.32	
Joe Blum												8	8	8		8			8	8	8	8	8				8	8	8	8	4	108	\$ 13.48	\$1,455.84	
Tim Petersen												8	8	8		8			8	8	8	8	8				8	8	8	8	4	108	\$ 10.27	\$1,109.16	
																																0	\$ -	\$0.00	
																																0	\$ -	\$0.00	
																																0	\$ -	\$0.00	
																																0	\$ -	\$0.00	
																																0	\$ -	\$0.00	
																																0	\$ -	\$0.00	
		Labor Cost:																																	\$15,927.96

Equipment	Hours worked per day																															Total Hours	Hourly Rate	Totals	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
#83 Cat Excavater									2			7	7	6		6			5	4	7	7	7				6	6	6	6	2	84	\$ 67.19	\$5,643.96	
#73 Link Belt Crane												3	6		6			4		4	2	2				3					30	\$ 98.33	\$2,949.90		
#103 Tele-Crane																																0	\$ 89.06	\$0.00	
#75 IH Dozer																																0	\$ 42.05	\$0.00	
#59 J. D. Dozer									2													2	2								6	\$ 26.81	\$160.86		
#32 J.D. crawler									2			2									2						4	4	1		15	\$ 28.29	\$424.35		
#97 air comp.																											2	2	1		5	\$ 10.00	\$50.00		
#63 Welder																			2	6											8	\$ 10.00	\$80.00		
#18 Tool Truck									2			2	2	2		2			2	2	2	2	2			2	2	2	2	2	30	\$ 6.94	\$208.20		
																																0	\$ -	\$0.00	
																																0	\$ -	\$0.00	
																																0	\$ -	\$0.00	
		Equipment Costs:																																	\$9,517.27

No. of pieces	Size	Materials List	Stockpile location or purchased from	New/Used	No. Units	* Units	Unit Cost	Total Costs		
8	24"	I Beams	old bridge	used	8	each	\$ 1,008.00	\$ 8,064.00	Total Labor Costs: \$15,927.96	
2	gal.	primer paint	Kiron Imbr.		2	each	\$ 24.00	\$ 48.00	Materials (page 1):	\$ 8,112.00
					0		\$ -	\$ -	Materials (page 2):	\$ 22,080.31
					0		\$ -	\$ -	Total Material Cost: \$30,192.31	
					0		\$ -	\$ -	Equipment Costs: \$9,517.27	
					0		\$ -	\$ -	Total Costs: \$55,637.54	
					0		\$ -	\$ -		
									Material Costs (page 1): \$ 8,112.00	

Crawford County Secondary Roads Material List				Project No.:				
No. Pieces	Size	Description of Materials Used:	Stockpile Location or Direct Purchase From	New or Used	No. Units	Units *(see below)	Unit Cost	Total Cost
16	3"x12"	16' Plank	Denison	used	256	In.ft.	\$ 3.44	\$880.64
26	3"x12"	18' Plank	Denison	used	234	In.ft.	\$ 3.44	\$804.96
26	3"x12"	20' Plank	Denison	used	260	In.ft.	\$ 3.44	\$894.40
17	3"x12"	22' Plank	Denison	new	187	In.ft.	\$ 3.60	\$673.20
24	3"x12"	24' plank	Denison	new	576	In.ft.	\$ 3.60	\$2,073.60
20	4"x12"	16' plank			320	In.ft.	\$ 2.25	\$720.00
20	4"x12"	24' plank			480	In.ft.	\$ 3.99	\$1,915.20
	4"x16"	any length			0	In.ft.	\$ 2.50	\$0.00
24	3"x12"	20' plank		new	480	In. ft.	\$ 3.44	\$1,651.20
	10"x10"	Wood Cap			0	In.ft.	\$ 9.17	\$0.00
	12"x12"	Wood Cap			0	In.ft.	\$ 13.20	\$0.00
					0		\$ -	\$0.00
	4"x6"	12' nailer			0	each	\$ 26.05	\$0.00
4	4"x6"	16' nailer			4	each	\$ 29.33	\$117.32
					0		\$ -	\$0.00
	2"x4"	any length			0	In.ft.	\$ 0.28	\$0.00
	2"x6"	any length				In.ft.	\$ 0.39	\$0.00
	1/2"	4'x8' plywood			0	each	\$ 11.05	\$0.00
	3/4"	4'x8' plywood			0	each	\$ -	\$0.00
					0		\$ -	\$0.00
8	25'	wood piling			8	each	\$ 173.91	\$1,391.28
	30'	wood piling			0	each	\$ 200.94	\$0.00
	35'	wood piling			0	each	\$ 236.25	\$0.00
	40'	wood piling			0	each	\$ 296.37	\$0.00
					0		\$ -	\$0.00
	8"x8"	40'steel@36lb./ft.			0	In. ft.	\$ 10.61	\$0.00
	8"x8"	50'steel @36lb./ft			0	In. ft.	\$ -	\$0.00
Total Materials (page two) :								\$11,121.80

Crawford County Secondary Roads Material List					Project No.:			
No. Pieces	Size	Description of Materials Used:	Stockpile Location or Direct Purchase From	New or Used	No. Units	Units *(see below)	Unit Cost	Total Cost
	10"x10"	40' Steel H@42 lb./ft.	Denison	new	0	lin. Ft..	\$ 8.50	\$0.00
12	10"x10"	50' Steel H@42 lb/ft	Denison	new	600	lin. Ft..	\$ 11.35	\$6,810.00
	10"	40' channel @15.3 lbs./ft.	Denison	new	0	lin. Ft..	\$ 3.13	\$0.00
	12"	40' channel @15.3 lbs./ft.	Denison	new	0	lin. Ft..	\$ 4.90	\$0.00
	1/2"x14"	10' steel plates	Denison	new	0	lin. Ft..	\$ 6.43	\$0.00
2	25'	Steel Caps			2	each	\$ 565.40	\$1,130.80
	30 1/2"	Diaphragms			0	each	\$ 31.04	\$0.00
42	38 1/2"	Diaphragms			42	each	\$ 37.43	\$1,572.06
16	85lb.	rail posts			16	each	\$ 8.50	\$136.00
	straight 20'	7 ga.sheet piling	Denison	new	0	each	\$ 123.22	\$0.00
	45degree	sheet piling	Denison	new	0	each	\$ 151.40	\$0.00
	90degree	sheet piling	Denison	new	0	each	\$ 139.80	\$0.00
					0			\$0.00
2	13'	gaurdrail		used	26	lin. Ft..	\$ 1.00	\$26.00
	26'	gaurdrail				lin. Ft..	\$ 1.00	\$0.00
2	25'	W-beam gaurdrail		new	50	lin. Ft..	\$ 4.95	\$247.50
4	2'	gaurdrail terminal ends		new	4	each	\$ 24.95	\$99.80
	1/4"	2 1/2"x2 1/2" angle 20'	Denison	new	0	lin. Ft..	\$ 0.78	\$0.00
	3/8"	3"x3" angle 20'	Denison	new	0	lin. Ft..	\$ 1.35	\$0.00
					0			\$0.00
720'	1/2"	wire cable	Denison	new	720	lin. Ft..	\$ 0.68	\$489.60
72	1/2"	cable clamps	Denison	new	72	each	\$ 1.91	\$137.52
					0			\$0.00
	1/2"	20' rebar	Denison	new	0	lin. Ft..	\$ 0.16	\$0.00
	5/8"	20' rebar	Denison	new	0	lin. Ft..	\$ 0.24	\$0.00
	5/8"	20" rebar with Epoxy	Denison	new	0	each	\$ 0.27	\$0.00
					0			\$0.00
Total Materials (page three) :								\$10,649.28

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No. Pieces	Size	Description of Materials Used:	Stockpile Location or Direct Purchase From	New or Used	No. Units	Units *(see below)	Unit Cost	Total Cost
	12'	felt fabric	Denison		0	lin. ft.	\$ 0.72	\$0.00
	12'	mesh fabric	Denison		0	lin.	\$ 2.00	\$0.00
	box	1"x6"x6" fabric staples	Denison		0	each	\$ 21.70	\$0.00
					0			\$0.00
	8d	nails	Denison		0	lb.	\$ 0.80	\$0.00
	16d	nails	Denison		0	lb.	\$ 0.69	\$0.00
	16d	double head nails	Denison		0	lb.	\$ 0.69	\$0.00
30	60d	ringshank spikes	Denison	New or	30	lbs.	\$ 1.35	\$40.50
					0			\$0.00
	3/4"	anchor bolts	Denison		0	each	\$ 2.80	\$0.00
50	1/2"	maellable washers	Denison		50	each	\$ 0.94	\$47.00
	3/4"	maellable washers	Denison		0	each	\$ 0.94	\$0.00
	1/2"	flat washers	Denison		0	each		\$0.00
	3/4"	flat washers	Denison		0	each		\$0.00
36	7/8"	flat washers				each	\$ 0.90	\$0.00
36	3/4"	2 1/2" bolts	Denison		36	each	\$ 0.70	\$25.20
	3/4"	3" bolts	Denison		0	each	\$ 0.80	\$0.00
25	1/2"	9" bolts	Denison	New or	25	each	\$ 1.05	\$26.25
	1/2"	10" bolts	Denison		0	each	\$ 0.98	\$0.00
	1/2"	11" bolts	Denison		0	each	\$ 1.05	\$0.00
	1/2"	12" bolts	Denison		0	each	\$ 1.84	\$0.00
198	7/8"	2 1/2" bolts	Denison		198	each	\$ 0.86	\$170.28
	3/4"	8" bolt	Denison		0	each	\$ 1.10	\$0.00
	3/4"	9"bolt	Denison		0	each	\$2.60	\$0.00
	3/4"	10" bolt	Denison		0	each	\$ 1.25	\$0.00
	3/4"	11'	Denison		0	each	\$ 1.45	\$0.00
	3/4"	12" bolts	Denison		0	each	\$ 1.93	\$0.00
Total Materials (page four) :								\$309.23