Bridge Inspection Records Information System

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State of California
Department of Transportation

Division of Maintenance Structures Maintenance & Investigations

SMS12001 AAAC



DEPARTMENT OF TRANSPORTATIONStructure Maintenance & Investigations

Bridge Number : 55C0172

Facility Carried: MODJESKA CYN RD

Location : .1 MI N OF MODJESKA G RD

City

Inspection Date : 17-JAN-02

Inspection Type

Bridge Inspection Report

Routine Group A Underwater Special Other

Name : SANTIAGO CREEK

CONSTRUCTION INFORMATION

 Year Built : 1935
 Skew (degrees): 68

 Year Widened : N/A
 No. of Joints : 0

 Length (m) : 19.5
 No. of Hinges : 0

Description of Structure : Simply supported single span riveted steel through plate girders (2 each)

with an RC deck and RC closed end backfilled cantilever abutments, all

supported upon spread footings.

Span Configuration: (S) 1 @ 18.3 m (N) c/c

LOAD CAPACITY AND RATINGS

Design Live Load: M - 13.5 OR H - 15

Inventory Rating : 17.2 metric tons Calculation Method : LOAD FACTOR Operating Rating : 25.4 metric tons Calculation Method : LOAD FACTOR

Permit Rating : GGGGG

Posting Load : Type 3 N/A english tons Type 3S2 N/A english tons Type 3-3 N/A english tons

DESCRIPTION ON STRUCTURE

Bridge width : (W) Steel plate girder, 0.7 m cu, 2 @ 3.0 m, 0.7 m cu, steel plate girder (E)

Total Width: 7.3 m Net Width: 6.10 m No. of Lanes: 2

Rail Description : None.

Rail Code : 1000

Min. Vertical Clearance : Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description : Natural earth trapezoidal.

CONDITION OF STRUCTURE

The steel beams have freckled rust with no loss of section.

The southerly concrete abutment is fractured at its easterly corner and at its westerly corners, near the supports for the steel girders.

Otherwise, the structure is in good condition.

GROUP "A" INVESTIGATION

The structure was inspected by Mark Desrosiers and by Makoto Ogata. No distress was found.

EL.	MENT	LEVEL INSPECTION RATINGS							
F#	Elet No	m Element Description	Env	Total Units Quantity	St. 1	Qty in eac St. 2		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	St. 5
01	12	Concrete Deck - Bare	2	110 sq.m.	110	0	0	0	0
01	107	Painted Steel Open Girder/Beam	2	40 m.	0	0	40	0	0
01	152	Painted Steel Floor Beam	2	56 m.	0	0	56	0	0
01	215	Reinforced Conc Abutment	2	30 m.	30	0	0	0	
01	311	Moveable Bearing (roller, sliding, etc.)	2	2 ea.	2	0	0	0	0
01	313	Fixed Bearing	2	2 ea.	2	0	0	0	0

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MAY 2 4 2002

Bridge No.: 55C0172

Location: .1 MI N OF MODJESKA G RD Inspection Date: 17-JAN-02

WORK RECOMMENDATIONS

Repair the fractured concrete in the southerly abutment at the easterly corner and at the westerly corner.

Item#

Rec. Date

Work By

Work Id.

Prog. Method

Cost

1.

17-JAN-2002

County Agency

40172X02017X

Inspected By : M. Ogata

Registered C

vil Engineer

PROFESSIONAL ENGINEER AND CONTRACTOR OF THE PROFESSIONAL ENGINEER AND CONTRACTOR OF THE PROFESSIONAL ENGINEER AND CONTRACTOR OF CALIFORNIA AND CONTRACTOR OF CALI

CC : TMRut

Orange County

Bridge No.: 55C0172 Location: .1 MI N OF MODJESKA G RD Inspection Date: 17-JAN-02

STRUCTURE INVENTORY AND APPRAISAL REPORT

	STRUCTURE INVEN	TORY AND APP	raisai	REPORT
	**************************************	***** 069		SUFFICIENCY RATING = 49.5
	STATE NAME - CALIFORNIA	0172		STATUS - FUNCTIONALLY OBSOLETE
(8)	STRUCTURE NUMBER 55C INVENTORY ROUTE(ON/UNDER) - ON 1 40 000			HEALTH INDEX = 71.25
		12		***************** CLASSIFICATION ************************************
	HIGHWAY AGENCY DISTRICT COUNTY CODE 059 (4) PLACE CODE 0	0000		NRIP BYINGS TRUGIN - 199
	COUNTY CODE 059 (4) PLACE CODE 0 FEATURE INTERSECTED - SANTIAGO CREEK			NIGHASI SIBIAN - NOT ON MIC
(6)	FACILITY CARRIED - MODJESKA CYN RD			FUNCTIONAL CHASS - LOCAL SALES
(7)	LOCATION1 MI N OF MODJESKA G RD			DEFENSE GIGNAL - NOT STREET
	MILEPOINT/KILOMETERPOINT	0		PARALLEL SIRVETORS MONE MATERIA
(12)	BASE HIGHWAY NETWORK - NOT ON NET	0		DIRECTION OF TRAFFIC - 2 WAY 2
	LRS INVENTORY ROUTE & SUBROUTE			TEMPORARY STRUCTURE - FEDERAL LANDS HIGHWAY - NOT APPLICABLE 0
	LATITUDE 33 DEG 42 MIN 32	SEC		DESIGNATED NATIONAL NETWORK - NOT ON NET
•	LONGITUDE 117 DEG 38 MIN 09	SEC		TOLL - ON FREE ROAD 3
1	BORDER BRIDGE STATE CODE * SHARE	ŧ		MAINTAIN - COUNTY HIGHWAY AGENCY 2
	BORDER BRIDGE STRUCTURE NUMBER			OWNER - COUNTY HIGHWAY AGENCY 2
(20)		*****		HISTORICAL SIGNIFICANCE - NOT ELIGIBLE 5
	************ STRUCTURE TYPE AND MATERIAL *****		(31)	
(43)	STRUCTURE TYPE MAIN: MATERIAL - STEEL	3 03		********** CODE
	TYPE - GIRDER & FLOORBEAM SYSTEM CODE	3 03	(58)	DECK
(44)	STRUCTURE TYPE APPR: MATERIAL -		(59)	SUPERSTRUCTURE 5
	1126	1	(60)	SUBSTRUCTURE 7
	NUMBER OF SPANS IN MAIN UNIT	- 0	(61)	CHANNEL & CHANNEL PROTECTION 8
	NUMBER OF APPROACH SPANS DECK STRUCTURE TYPE CIP CONCRETE C	ODE 1	(62)	CULVERTS
				******* LOAD RATING AND POSTING ******* CODE
	WEARING SURFACE / PROTECTIVE SYSTEM:	ODE 1		
	TYPE OF WEARING SORFACE CONCRETE	ODE 0	,	, DB01011 2012 1. 1210 111
	TIPE OF MEMBROANE - MONE	ODE 0		O'Electrical Control of the Control
c	TIPE OF DECK PROIDCITOR			OPERATING RATING - 25.4 O INVENTORY RATING METHOD - LOAD FACTOR 1
	******* AGE AND SERVICE ********			
	YEAR BUILT	1935) INVENTORY RATING - 17.2) BRIDGE POSTING - Equal to or above legal loads 5
	YEAR RECONSTRUCTED	0000) STRUCTURE OPEN, POSTED OR CLOSED - A
(42)	TYPE OF SERVICE: ON - HIGHWAY	1 5	(41	DESCRIPTION - OPEN, NO RESTRICTION
	UNDER - WATERWAY LANGS ON STRUCTURE 02 UNDER STRUCTURE	_		
	margo. on other and	1000		*********** APPRAISAL ************ CODE
	AVERAGE DAILY TRAFFIC YEAR OF ADT 1998 (109) TRUCK ADT	14	(67) STRUCTURAL EVALUATION 4
	BYPASS, DETOUR LENGTH	2 1014	(68	DECK GEOMETRY 3
(19)			(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
	******************* GEOMETRIC DATA ***********) WATER ADEQUACY 8
	DENGTH OF FLAXIMON SEAN	19.5 M 19.5 M		a) APPROACH ROADWAY ALIGNMENT 6
	STRUCTURE LENGTH	,7 M		TRAFFIC SAFETY FEATURES 1000
	CORB OR SIDEMALK, LDC.	6.1 M	(113	3) SCOUR CRITICAL BRIDGES
	BRIDGE ROADWAY WIDTH CURB TO CURB	7.3 M		*********** PROPOSED IMPROVEMENTS **********
	DECK WIDTH OUT TO OUT APPROACH ROADWAY WIDTH (W/SHOULDERS)	6.1 M	(75	7) TYPE OF WORK - REPLACE FOR DEFICIENCY CODE 31
	BRIDGE MEDIAN - NO MEDIAN	0		5) LENGTH OF STRUCTURE IMPROVEMENT 26.89 M
	SKEW 68 DEG (35) STRUCTURE FLARED	NO		4) BRIDGE IMPROVEMENT COST \$236,000
		9,99 M		5) ROADWAY IMPROVEMENT COST \$24,000
	INVENTORY ROUTE TOTAL HORIZ CLEAR	6.1 M		6) TOTAL PROJECT COST \$353,000.
		9.99 M	(9	7) YEAR OF IMPROVEMENT COST ESTIMATE 1999
) MIN VERT UNDERCLEAR REF - NOT H/RR	0 M		4) FUTURE ADT 1000
) MIN LAT UNDERCLEAR RT REF - NOT H/RR	0 M	(11	5) YEAR OF FUTURE ADT 2015
) MIN LAT UNDERCLEAR LT	0 M		**************************************
	******************* NAVIGATION DATA **********	*****	(9	0) INSPECTION DATE 05/01 (91) FREQUENCY 24 MO
120		CODE N	• -	2) CRITICAL FEATURE INSPECTION: (93) CFI DATE
		CODE 1		A) FRACTURE CRIT DETAIL - YES 48 MO A) 01/02
) NAVIGATION VERTICAL CLEARANCE	0 M		B) UNDERWATER INSP - NO -1 MO B)
) VERT-LIFT BRIDGE NAV MIN VERT CLEAR	O M		C) OTHER SPECIAL INSP - NO -1 MO C)
(4)) NAVIGATION HORIZONTAL CLEARANCE	0		

MAY 24 2002



DEPARTMENT OF TRANSPORTATION

Structure Maintenance & Investigations

Bridge Inspection Report

Bridge Number : 55C0172

Facility Carried: MODJESKA CYN RD

Location : .1 MI N OF MODJESKA G RD

City

Inspection Date : 29-MAY-01

Inspection Type

Routine Group A Underwater Special Other

Name : SANTIAGO CREEK

CONSTRUCTION INFORMATION

Skew (degrees): 68 Year Built : 1935 No. of Joints : 0 Year Widened : N/A No. of Hinges: 0 Length (m) : 19.5

Description of Structure : Simply supported single span riveted steel through plate girders (2 each)

with an RC deck and RC closed end backfilled cantilever abutments, all

supported upon spread footings.

Span Configuration : (S) 1 @ 18.3 m (N) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : M - 13.5 OR H - 15

Calculation Method : LOAD FACTOR Calculation Method : LOAD FACTOR Inventory Rating: 17.2 metric tons Operating Rating : 25.4 metric tons

Permit Rating : GGGGG

Type 3S2 N/A english tons Type 3-3 N/A english tons : Type 3 N/A english tons Posting Load

DESCRIPTION ON STRUCTURE

Bridge width : (W) Steel plate girder, 0.7 m cu, 2 @ 3.0 m, 0.7 m cu, steel plate girder (E)

No. of Lanes: 2 Net Width: 6.10 m Total Width: 7.3 Rail Code : 1000

Rail Description : None.

Unimpaired Min. Vertical Clearance :

DESCRIPTION UNDER STRUCTURE

Channel Description : Natural earth trapezoidal.

CONDITION OF STRUCTURE

The steel beams have freckled rust with no loss of section.

Otherwise, the structure is in good condition.

F#		LEVEL INSPECTION RATINGS m Element Description	Env	Total Units Quantity	St. 1	Qty in each St. 2	Conditi St. 3	on State St. 4	St.
	12	Concrete Deck - Bare	2	110 sq.m.	110	0	0	0	C
		Painted Steel Open Girder/Beam	2	40 m.	0	0	40	0	C
		Painted Steel Floor Beam	2	56 m.	0	0	56	0	C
		Reinforced Conc Abutment	2	30 m.	30	0	0	0	
		Moveable Bearing (roller, sliding, etc.)	2	2 ea.	2	0	0	0	(
01	313	Fixed Bearing	2	2 ea.	2	0	0	0	(

WORK RECOMMENDATIONS - NONE

Page 2 of 3 SMS12001 AAAB

Bridge No.: 55C0172 Location: .1 MI N OF MODJESKA G RD Inspection Date: 29-MAY-01

No. C23989 Exp. 12-31-01

Inspected By : M. Ogata

d Civil Engineer

CC : TMRut

Orange County

Printed on : 01-JUN-2001 12:46:58 PM

Bridge No.: 55C0172 Location: .1 MI N OF MODJESKA G RD Inspection Date: 29-MAY-01

STRUCTURE INVENTORY AND APPRAISAL REPORT

	STRUCTURE	INVENTORY AND	D APPRAISA	L REPORT
	**************************************	*********		SUFFICIENCY RATING = 49.5
	STATE NAME - CALIFORNIA	55C0172		STATUS = FUNCTIONALLY OBSOLETE
	STRUCTURE NUMBER INVENTORY ROUTE(ON/UNDER) - ON			HEALTH INDEX * 71.25
		12		************ CLASSIFICATION ************************************
	HIGHWAY AGENCY DISTRICT COUNTY CODE 059 (4) PLACE CODE	00000	(112)	NBIS BRIDGE LENGTH - YES Y
		*****	(104)	HIGHWAY SYSTEM - NOT ON NHS 0
	FEATURE INTERSECTED - SANTIAGO CREEK		(26)	FUNCTIONAL CLASS - LOCAL URBAN 19
	FACILITY CARRIED - MODJESKA CYN RD		(100)	DEFENSE HIGHWAY - NOT STRAHNET 0
	LOCATION1 MI N OF MODJESKA G RD	0	(101)	PARALLEL STRUCTURE - NONE EXISTS N
	MILEPOINT/KILOMETERPOINT	0	(102)	DIRECTION OF TRAFFIC - 2 WAY 2
	BASE HIGHWAY NETWORK - NOT ON NET	v	(103)	TEMPORARY STRUCTURE -
	LRS INVENTORY ROUTE & SUBROUTE LATITUDE 33 DEG 42	MIN 22 CEC	(105)	FEDERAL LANDS HIGHWAY - NOT APPLICABLE 0
(16)	LATITUDE 33 DEG 42		(110)	DESIGNATED NATIONAL NETWORK - NOT ON NET 0
	DONGITODA	_	(20)	TOLL - ON FREE ROAD 3
	BORDER BRIDGE STATE CODE % SH	ARD *	(21)	MAINTAIN - COUNTY HIGHWAY AGENCY 2
(99)	BORDER BRIDGE STRUCTURE NUMBER		(22)	OWNER - COUNTY HIGHWAY AGENCY 2
	******* STRUCTURE TYPE AND MATERIAL	******	(37)	HISTORICAL SIGNIFICANCE - NOT ELIGIBLE 5
(43)	STRUCTURE TYPE MAIN: MATERIAL - STEEL			
(43)		CODE 3 03		**************************************
(44)	STRUCTURE TYPE APPR: MATERIAL -		(58)	DECK 7
(44)	TYPE -	CODE	(59)	SUPERSTRUCTURE 5
(45)	NUMBER OF SPANS IN MAIN UNIT	1	(60)	SUBSTRUCTURE 7
	NUMBER OF APPROACH SPANS	0	(61)	CHANNEL & CHANNEL PROTECTION 8
	DECK STRUCTURE TYPE CIP CONCRETE	CODE 1	(62)	CULVERTS
	WEARING SURFACE / PROTECTIVE SYSTEM:	CODE 1		******** LOAD RATING AND POSTING ******** CODE
	TYPE OF WEARING SURFACE - CONCRETE	CODE 1	(31)	DESIGN LOAD - M - 13.5 OR H - 15 2
	TYPE OF MEMBRANE - NONE	CODE 0	(63)	OPERATING RATING METHOD - LOAD FACTOR 1
C)	TYPE OF DECK PROTECTION - NONE	CODE 0	(64)	OPERATING RATING - 25.4
	***** AGE AND SERVICE *****	*******	(65) INVENTORY RATING METHOD - LOAD FACTOR 1
(27)	YEAR BUILT	1935	(66) INVENTORY RATING - 17.2
	YEAR RECONSTRUCTED	0000	(70	BRIDGE POSTING - Equal to or above legal loads 5
	TYPE OF SERVICE: ON - HIGHWAY	1	(41) STRUCTURE OPEN, POSTED OR CLOSED - A
,	UNDER - WATERWAY	5		DESCRIPTION - OPEN, NO RESTRICTION
(28)	LANES: ON STRUCTURE 02 UNDER STR	UCTURE		GODD
(29)	AVERAGE DAILY TRAFFIC	1000		************* APPRAISAL ************************************
(30)	YEAR OF ADT 1998 (109) TRUCK	ADT 1%	(67) STRUCTURAL EVALUATION 4
(19)	BYPASS, DETOUR LENGTH	2 KM	-) DECK GEOMETRY 3
,	**************************************	****	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
		19.5 M	(71) WATER ADEQUACY 8
	LENGTH OF MAXIMUM SPAN	19.5 M) APPROACH ROADWAY ALIGNMENT 6
	STRUCTURE LENGTH		(36) TRAFFIC SAFETY FEATURES 1000
	CURB OR SIDEWALK: LEFT .7 M RIGHT	6.1 M	(113) SCOUR CRITICAL BRIDGES 8
	BRIDGE ROADWAY WIDTH CURB TO CURB	7.3 M		********** PROPOSED IMPROVEMENTS **********
	DECK WIDTH OUT TO OUT		/==) TYPE OF WORK - REPLACE FOR DEFICIENCY CODE 31
	APPROACH ROADWAY WIDTH (W/SHOULDERS)	0.1 M		
	BRIDGE MEDIAN - NO MEDIAN			LENGTH OF STRUCTURE IMPROVEMENT 26.89M BRIDGE IMPROVEMENT COST \$236,000
	SKEW 68 DEG (35) STRUCTURE FLARE			ROADWAY IMPROVEMENT COST \$24,000
	INVENTORY ROUTE MIN VERT CLEAR	99.99 M 6.1 M		(c) TOTAL PROJECT COST \$353,000
	INVENTORY ROUTE TOTAL HORIZ CLEAR	99.99 M		7) YEAR OF IMPROVEMENT COST ESTIMATE 1999
	MIN VERT CLEAR OVER BRIDGE RDWY	99.99 M		1 TEAR OF INTROVERSEL COST SOCIETIES
	MIN VERT UNDERCLEAR REF - NOT H/RR	0 M		FOTOKE ADI
	MIN LAT UNDERCLEAR RT REF - NOT H/RR	0 M	(11:	TEAN OF FOLIAGE TEST
(56)	MIN LAT UNDERCLEAR LT			*****************
	************************ NAVIGATION DATA ******	****	(90)) INSPECTION DATE 05/01 (91) FREQUENCY 24 MO
(38)) NAVIGATION CONTROL - NOT APPLICABLE	CODE N		2) CRITICAL FEATURE INSPECTION: (93) CFI DATE
	PIER PROTECTION - NOT REQUIRED	CODE 1		A) FRACTURE CRIT DETAIL - YES 48 MO A) 04/91
) NAVIGATION VERTICAL CLEARANCE	0 M	1	B) UNDERWATER INSP - NO -1 MO B)
	VERT-LIFT BRIDGE NAV MIN VERT CLEAR	0 M	(C) OTHER SPECIAL INSP - NO -1 MO C)
(40) NAVIGATION HORIZONTAL CLEARANCE	0		

TYPE	OF	INVESTIGATION/REPORT	

BIENNIAL X DAMAGE _

CATEGORY A OTHER OFFICE

UNDERWATER ___ OFFICE ___

Location 12 - Ora - CR
Dist.-Co.-Rte.-City

Date of Investigation July 5, 1995

Name <u>SANTIAGO CREEK (Modjeska Canyon Road, 0.1 mile north of</u> Modjeska Grade Road)

CONDITION RATINGS:

Condition ratings of all bridge elements are shown on the PONTIS DATA FORM (Attachment A).

Channel & Channel Protection

8

SCOUR CRITICAL:

A scour rating of A-3 is appropriate.

CONDITION OF STRUCTURE:

Bolts, six each, on one end of the floor beam that connects to main girder, are missing. It appears that they were deliberately removed on alternate ends of the beams. Corrosion around bolt holes has resulted from this.

There is light cracking on abutment walls and soffit.

Pedestal cracks, mentioned in last report, remain the same.

Condition of structure is good.

WORK RECOMMENDED:

- Replace missing bolts at ends of floor beams.
- 2. Repair cracks on pedestals.

ENCROACHMENT:

One 0.20 m diameter welded steel pipe attached to west exterior.

One 0.038 m diameter steel conduit attached transversely under the girders along the north abutment.

GPB:cd

CC: CDHarris
Orange County
WLindsey

M. Hadi Behrooj

PONTIS DATA FORM - PIA

BRIDGE NUMBER	FRAME	INSPECTION DATE
	0 1	070595
5 5 C O 1 7 2		
8	9	11 16

INFORMATION ONLY - NOT FOR UPDATE

SCOUR CRITICAL NO
CATEGORY A YES
FRACTURE CRITICAL NO
ELIGIBLE FOR RAIL UPGRADE NO
UNDERWATER INSPECTION NO

DISTRICT 12
COUNTY ORA
ROUTE
POSTMILE
NAME

D E L	E	LE #		ELEMENT DESCRIPTION	E N V	T QU	OT.	AL TIT	ſΥ	UNITS	CON	UAN DIT ATE	ION	CON	IUAI IDI ATI	NT TION E 2	V (QUA CONDI Stat	TI	0N 3	CON	AUI IDI AT	T I O	·	CON	DIT ATE	
			7	PAINTED STEEL OPEN GIRDER	2			3	9	М		1	ı t		1	1 1		: 1	2	7			1	2	1	ل_ل	
-	_!	i 3	2	PAINTED STEEL FLOOR BEAM	2			5	9	М			1 1		1	1 1		. 1	5	9		1	1.1				<u></u>
-		I 5	1	CONCRETE ABUTMENT	2			2	9	М		1	2 7			;	2	II	1	ı	1	1	11		1		1_1
		9	6	MOVEABLE BEARING (ROLLER, SLIDING, ETC.)	2				2	EA	,				1				ı	X		I		1		1	اا
	_1	9	8	FIXED BEARING	2				2	EA								1	1	X			1		1		L
+	1	1	2	CONCRETE DECK - BARE	2			1	1	EA		<u> </u>	1					1 1	<u> </u>								1.4
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Name SANTIAGO CREEK (Modjeska Canyon Road, 0.1 mile north of Modjeska Grade Road)

Location

12-Ora-CR Dist.-Co.-Rte.-City

SUMMARY OF ENCROACHMENTS

Permit No. and Permittee	Date	Description & Location on Bridge
	Prior to 7-5-95	1 - 0.20 m diameter welded steel pipe attached to west exterior.
		1 - 0.038 m diameter steel conduit attached transversely under the girders along the north abutment.

HBD M 30

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF STRUCTURES
SUPPLEMENTARY BRIDGE REPORT
DS-M19 (REV. 8/92)

Bridge Number	55C-172	* .	
Location	12 - Ora - CR		

TYPE OF	INVESTIC	ATION/REPORT
BIENNIAL	. <u>X</u>	DAMAGE
CATEGOR	Y A	OTHER
UNDERWA	TER	OFFICE

Location 12 - Ora - CR
Dist.-Co.-Rte.-City

Date of Investigation April 22, 1993

Name SANTIAGO CREEK (Modjeska Canyon Road, 0.1 mile north of Modjeska Grade Road)

CONDITION RATINGS:

Condition ratings of all bridge elements are shown on the PONTIS DATA FORM (Attachment A).

Channel & Channel Protection

CONDITION OF STRUCTURE:

Condition of fractured concrete pedestal under bearing plate of each of the two plate girders at south end remains the same. Otherwise, the structure is in good condition.

Henry Ma

WORK RECOMMENDED:

Repair concrete pedestals as previously recommended.

HM:cd

cc: INagai (2)

County of Orange

No. C-36817

Exp. 6-30-96

C/VIL

C/VIL

PONTIS DATA FORM - PIA

BRIDGE NUMBER	FRAME	INSPECTION DATE
1 8	9	11 16

INFORMATION ONLY - NOT FOR UPDATE

SCOUR CRITICAL NO
CATEGORY A YES
FRACTURE CRITICAL NO
ELIGIBLE FOR RAIL UPGRADE NO
UNDERMATER INSPECTION NO

DISTRICT 12
COUNTY DRA
ROUTE ***
POSTMILE ***
NAME

DEL	ELE	:	ELEMENT DESCRIPTION	E N V		TA TM		Y	UNITS	CON		TON	CC	QUANT NDITI	ON	QUANT CONDITE STATE	ON	QUANT CONDITION STATE 4	QUANT CONDITION STATE 5
	_1_1	7	STEEL OPEN GIRDER/STRINGER TYPE A PAINT	2		1	2 (8	LF							8	8	40	
	3	2	STEEL FLOOR BEAM, TYPE A PAINT	2		1	9 :	2	LF							1 5	2		
	5	1	CONCRETE ABUTMENT; DRY	2			;	2	EA			2							
	9	6	MOVABLE BEARING (ROLLER, SLIDING, ETC.)	2			;	2	EA						•		2		
	9	8	FIXED BEARING	2	<u></u>		;	2	EA								2		
];	L 1	2	CONCRETE DECK - BARE	2	-11			1	EA			1	 					-1- 111 	
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H. MA

BY: 3/.///

RIDGE REPORT 14W14	Bridge No. 55C - 172	
s-M58 (REV. L/91)	Location 12 -Ora - CR	
	Dist Co Rie City	
EVISED ORIGINAL REPORT	Date of Investigation April 17	, 1991
SANTIAGO CREEK (Mod	djeska Canyon Road, 0.1 mile north o djeska Grade Road)	
at. 33 ° - 42.5 N Long.	117 °- 38.1'W	
Custodian County of Orange	e Owner County of Orange	
TRUCTURAL DATA AND HISTORY		
ear Built 1935 By C	ounty of Orange Contract No. Unkno	own
Designed by: County	Plans Avail. @ County	and the same definition is a second to the same definition of the sa
girders (2 eac and closed end spread footing		estars
Spans (S) 60' (N)	600	Picht
Length 64' NBIS	Bridge Length Yes Skew 68°	Right
Length 64' NBIS Number Of Intermediate Joints:	Bridge Length Yes Skew 68° @Hinges None @Bents	None
Length 64' NBIS Number Of Intermediate Joints:	Bridge Length Yes Skew 68° @Hinges None @Bents	None
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L	### Bridge Length Yes Skew 68° ###################################	None Over)
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load	Bridge Length Yes Skew 68° @Hinges None @Bents	None Over)
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE	### Bridge Length Yes Skew 68° ###################################	None Over) Jnknown
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE Bridge Width (W) steel pla	### Bridge Length Yes Skew 68° ###################################	None Over) Jnknown pl grd (E)
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE Bridge Width (W) steel pla	### Bridge Length Yes Skew 68° ###################################	None Over) Jnknown pl ard (E)
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE Bridge Width (W) steel pla Total Width 24'	### Bridge Length Yes Skew 68° ###################################	None Over) Jnknown pl grd (E) Tracks None
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE Bridge Width (W) steel pla Total Width 24' Median None	### Bridge Length Yes Skew 68° ###################################	None Over) Jnknown pl ard (E) Tracks None
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE Bridge Width (W) steel pla Total Width 24' Median None Vert. Clearance over deck	Bridge Length Yes Skew 68° @Hinges None @Bents Less than 20') X (20'-29') (30' & H15 Design Method Unimpaired Appr. Rdwy. Width	None Over) Jnknown pl grd (E) Tracks None 1000 20'
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE Bridge Width (W) steel pla Total Width 24' Median None Vert. Clearance over deck Deck Type 1 Wearing Sur	### Bridge Length Yes Skew 68° ###################################	None Over) Unknown pl grd (E) Tracks None 1000
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE Bridge Width (W) steel pla Total Width 24' Median None Vert. Clearance over deck Deck Type 1 Wearing Sur	Bridge Length Yes Skew 68° @Hinges None @Bents Less than 20') X (20'-29') (30' & H15 Design Method tte girder, 2.2'cu, 20', 2.2'cu, stl. Net Width 20' Lanes 2 Rail Type Steel girder Unimpaired Appr. Rdwy. Width rface/Prot. Sys. 100 Concrete/none	None Over) Unknown pl grd (E) Tracks None 1000
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE Bridge Width (W) steel pla Total Width 24' Median None Vert. Clearance over deck Deck Type 1 Wearing Sur Alignment Tangent DESCRIPTION - UNDER STRUCTURE	Bridge Length Yes Skew 68° @Hinges None @Bents Less than 20') X (20'-29') (30' & H15 Design Method te girder, 2,2'gu, 20', 2,2'gu, stl Net Width 20' Lanes 2 Rail Type Steel girder Unimpaired Appr. Rdwy. Width rface/Prot. Sys. 100 Concrete/none	None Over) Juknown pl grd (E) Tracks None 1000 20'
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE Bridge Width (W) steel pla Total Width 24' Median None Vert. Clearance over deck Deck Type 1 Wearing Sur Alignment Tangent DESCRIPTION - UNDER STRUCTURE	Bridge Length Yes Skew 68° @Hinges None @Bents Less than 20') X (20'-29') (30' & H15 Design Method te girder, 2,2'gu, 20', 2,2'gu, stl Net Width 20' Lanes 2 Rail Type Steel girder Unimpaired Appr. Rdwy. Width rface/Prot. Sys. 100 Concrete/none	None Over) Jinknown pl ard (E) Tracks None 1000 20'
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE Bridge Width (W) steel pla Total Width 24' Median None Vert. Clearance over deck Deck Type 1 Wearing Sur Alignment Tangent DESCRIPTION - UNDER STRUCTURE	Bridge Length Yes Skew 68° @Hinges None @Bents Less than 20') X (20'-29') (30' & H15 Design Method te girder, 2.2'cu, 20', 2.2'cu, stl Net Width 20' Lanes 2 Rail Type Steel girder Unimpaired Appr. Rdwy. Width rface/Prot. Sys. 100 Concrete/none	None Over) Jinknown pl ard (E) Tracks None 1000 20'
Length 64' NBIS Number Of Intermediate Joints: Maximum Column/Pier Height: (L Design Live Load DESCRIPTION - ON STRUCTURE Bridge Width (W) steel pla Total Width 24' Median None Vert. Clearance over deck Deck Type 1 Wearing Sur Alignment Tangent DESCRIPTION - UNDER STRUCTURE	Bridge Length Yes Skew 68° @Hinges None @Bents _ess than 20') X (20'-29') (30' & H15 Design Method Unite girder, 2.2'cu, 20', 2.2'cu, stl. Rail Type Steel girder Unimpaired Appr. Rdwy. Width rface/Prot. Sys. 100 Concrete/none URE Vert. Horiz.Lt.	None Over) Juknown pl grd (E) Tracks None 1000 20'

Bridge No. 55C - 172 April 17, 1991

DESCRIPTION - HYDRAULICS

Navigable: Yes No X Pier/Abutment Protection (For N	Clearances: Vert		growth Horiz.	
RAFFIC INFORMATION	DECK	YEAR	UNDER	YEAR
verage Daily Traffic & Year :	1,000	1989	<u>N</u>	
verage Daily Traffic (Future) :	1,000 Est	2010	N	
verage Daily Trucks (% OF ADT)			N	
	1 mile		N	
hell Route:	No		No	
unctional Classification : OAD RATINGS: Inventory	09 HS 11	Operating	N HS 1	6
Permit	GGGGG	Computation	Method Load	Factor
CONDITION RATINGS: Deck 8 Sup Channel & Channel Protection	erstructure	7 N	Substructure Widenable	7 No
APPRAISAL RATINGS: Waterway Adequacy 9		Approach Road	way Alignment	6

CONDITION OF STRUCTURE:

There are several missing rivets (6 \pm each), which attach bottom cover plate to main girder, on the east plate girder at the 2nd and 4th floor beam (from south) connection; also on the west plate girder at the 3rd and 5th floor beam (from south) connection. At these locations moisture, corrosion, and subsequent expansion has separated and warped the bottom cover plate.

Previously reported Fracture and incipient spalling of both concrete pedestals supporting the steel plate girders at south end of the bridge remains unchanged.

Condition of the structure is good.

PAINT CONDITION:

Code 4. Condition of paint is poor. There is light freckle rust throughout and moderate flaking rust at isolated locations mentioned above.

WORK RECOMMENDED:

Repair both concrete pedestals supporting girder bearing plate at south abutment noted above.

ENCROACHMENT:

8" welded steel pipe attached to west exterior.

HM:ms

cc: INagai (2)

County of Orange

Henry Ma

No. C-36817

E OF CALIFOR

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION SUPPLEMENTARY BRIDGE REPORT DS-M19 (REV. 1/91)

Bridge No. 55C - 172 12- Ora - CR Location Dist. Date of Investigation 4-17-91 SANTIAGO CREEK (Modjeska Canyon Road, 0.1 mile north of Modjeska Substructure _

Widenable?

_ Culvert _ Channel & Channel Protection ____ TYPE OF INVESTIGATION/REPORT

Deck _____ Superstructure ____

BIENNIAL

DAMAGE_

CATEGORY A

Name Grade Road) CONDITION RATING:

OTHER ____

OFFICE ____ UNDERWATER ____

CATEGORY "A" INSPECTION:

This structure is a Category "A" structure because it is a 2 girder system with no redundant members.

The 2 steel plate girders are built-up by riveted construction with rivet connected floor beams supporting a through RC deck.

A close-up visual inspection was performed this date by means of ladder.

Next Category "A" inspection: Apri, 1997

CONDITION OF STRUCTURE:

There is no visual distress and condition of the steel members is good.

HM:ms

cc: INagai (2)

Henry Ma

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTARY BRIDGE REPORT
DS-M19 (REV. 1,09)

Bridge No)	550	<u> - 172</u>		
Location	12- or	a -	CF	<u> </u>	
	Dist.	Co.	Rte.	City	
Date of	Investigation	ı	4-11	L <u>-89</u>	

	Date of Inves	stigation4-11-8	39
SANTIAG Name	O CREEK (Modjeska Canyon Ro of Modjeska Grade R	oad, 0.1 mile Nor	th
CONDITION RATING: Deck 7 Superstructure Channel & Channel Protection	7 Substr.&Pipes 7	Widenable?	No
TYPE OF INVESTIGATI BIENNIAL X CATEGORY A UNDERWATER	ON /REPORT DAMAGE OTHER OFFICE		

DISCUSSION:

This structure is a simply supported single span bridge. It consists of two steel riveted through plate girder framing system as load carrying member, supported at each end on an individual concrete pedestal. As such, this bridge is considered to be a nonredundant and fracture critical structure. Therefore, it is recommended that mitigation to deficient conditions noted below be implemented with priority.

CONDITION OF STRUCTURE:

Condition of cracks in the concrete column pedestal supporting south abutment girder bearing of both girders, previously reported, has developed into an incipient concrete spall under the area of masonry bearing plate at southeast and southwest corner.

Condition of the structure is good.

PAINT CONDITION:

Code 4. Condition of paint is poor. Light to moderate freckle rust is appearing throughout.

REVISION:

Location: 12-Ora-CR

WORK RECOMMENDED:

Repair weakened condition of concrete pedestal under both girder bearing plates of south abutment by removing the unsound concrete and reconstructing the pedestal under the bearing plate. Temporary support of both girders will be required to do this work. SUBM

BRIDGE NO.	550	- 172	
SHEET NO.	2	DATE:	4-11-89

RECOMMENDED POSTING:

None.

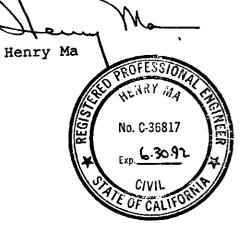
SUBSTRUCTURE CODING UPDATE:

Single span structure.

2 RC open end seated abutments on spread footing.

HM:ms

cc: INagai (2)
County of Orange (2)



STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION SUPPLEMENTARY BRIDGE REPORT DH-OS M19 (REV. 1/74)

Bridge No	55C-172
Location	7-Ora-CR Dist - Co - Rie - Pill - City

Date of Investigation April 21, 1987

Name	SANTIAGO	CREEK	(Modjeska	Canyon Mc	Rd., adjeska	Ø.1 .Grad	mile le_Rd)	N. of	
CONDITI	ON RATING: 7 Superst	ructure	7 Substr. 6 Retaini	& Pipes	7 N		PPRAISA	L RATING	3 :
	e? Yes 🔀 I	_	onditional			B - 1 C - 1	PRIORIT Immediat Early Sc Routine For Reco	e Action hedulin Maint.	g

REVISION:

Appraisal Rating: Overall 3

Average Daily Traffic - 1,000 (1985)

CONDITION OF STRUCTURE:

There is cracking of the concrete under both east abutment girder bearing seat.

Overall condition of the structure is good.

CONDITION OF PAINT:

Code 4, the condition of paint is poor. Freckle rust is appearing throughout the structure. Light to moderate rusting is also apparent at concrete contact surfaces.

RECOMMENDED POSTING:

None

WORK RECOMMENDED:

None

HM: pht

(2) CC: INagai Orange County (2) Henry Ma

No. C-36817

6.30.88

(1)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTARY BRIDGE REPORT
DINGS MID IREV. 1/74

Bridge No	55C-172
	7-Ora-CR
Date of Investigati	January 9, 1986

SANTIAGO CREEK (Modjeska Canyon R	d., 0.1 mile north of Modjeska Grade Road
CONDITION RATING:	APPRAISAL RATING:
7 Superstructure 7 Substr. & Pipes.	7 Overell7
Channel & Channel Protection 6 Retaining Walls.	
Widenable? Yes [He [Conditional [Action Required by County Yes [No []	PRIORITY A - Immediate Action B - Barly Scheduling C - Routine Maint. O - For Record Only
	- C-Logory HAH

This structure is classified as Local Agency Category "A" bridge, a close-up inspection was made on the above date.

WORK DONE:

Superficial paint has been applied to the steel girders (tops and insides) only above the road deck level.

ENCROACHMENT:

14" steel conduit is attached transversely under the girders along the north abutment.

CONDITION OF STRUCTURE:

The overall condition of the structure is good.

CONDITION OF PAINT:

Code 4 - Freckle rust is appearing throughout the structure. Some rusting are also found at contact surfaces of bearing plates and concrete. The condition of paint is poor.

RECOMMENDED POSTING:

None

WORK RECOMMENDED:

None

Bence No. 55C-172
SHEET. 2 of 2
DATE January 9, 1986

RECOMMENDATION:

Program this structure for cleaning and painting of structural steel.

Henry Ma C-36817 <u>B</u>

HM:pdh

cc: INagai (2)

Orange County (2)

ClibPDF - www.fastieacom.os M18

EST. 8157, 21701-908 2-74 3M GSP

141114

STATE OF CALIFORNIA	Bridge No	55 C-1 7	2
DEPARTMENT OF TRANSPORTATION SUPPLEMENTARY BRIDGE REPORT DN.05 M19 (REV. 1/74)	<u>-</u>	7-0ra-cp	Res - PM - City
•	Date of Investigat	len Octo	ber 26, 1983
SANTIAGO CREEK (Modjes	ka Canyon Rd.,	0.1 mile	
CONDITION RATING:			Grade Rd.) APPRAISAL RATING:
Deck 7 Superstructure 7	Substr. A Pines	7	•
Channel & Channel Pretection6	_Retaining Walls	N	
Widenable? Yes X No Conditiona County Action Required by SDEKEK Yes		B - C -	PRIORITY Immediate Action Early Scheduling Routine Maint. For Record Only
CONDITION OF STRUCTURE:			
The overall condition of the	ne structure is	good.	
PAINT:			
Code 4 - Rust specks through	ghout apparentl	y from r	ock throwing.
RECOMMENDED POSTING:			
None			•
RECOMMENDATION:			
None	جے	L. Nej	J.
	E.	L. Neff 28703	
ELN:pdh cc: DRHiggins (2) Orange County (2)			

(1)

STATE OF CALIFORNI	A	
DEPARTMENT OF TRA	NSPORTAT	ION
SUPPLEMENTARY	BRIDGE	REPORT
DH-05 M19 (REV. 1/74)		

Bridge No	DC-1/S
LocationCr	7 - Ora - CR Dist - Co - Rise - PM - City
Dete of Investigation	October 19, 1981

Name SANTIAGO CREE	K (Modjeska Canyon	Road, O	ol mile north of Hodjeska Grade Road)
CONDITION RATING:			APPRAISAL RATING:
Deck Superstructure .	. 7 Substr. & Pipes _	7	Overall 7
Channel & Channel Protection	င် Retaining Wails	(N)	 .
			
Widenable? Yes X No County:	Conditional		,
Action Required by Blassics	Yes 🔲 No 🔀		

WORK DONE:

The previously recommended work appears to have been done.

CONDITION OF STRUCTURE:

The overall condition of the structure is good.

PAINT:

Code 4, rust specks throughout apparently from rock throwing.

RECOMMENDED POSTING:

None.

E. L. Neff C 28703

ELN:ed cc: DRHiggins (2) Crange County (2) STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

BRIDGE REPORT	Bridge No	220-115
DH-OS M58 -REV 3/74)	Other No	8C-7
	P.U.C. Ne	
		0 7 -0:56 -0 -05 Diet - Co - Rie - PM - City
and the state of t	•	Dist - Co - Rie - PM - City
	Date of Invest	igation May 4, 1978
, ,	· · · · · · · · · · · · · · · · · · ·	l mi. N. of Modjeska Grade Rd
Lat. 33°-42.5° Long		
STRUCTURAL DATA AND HI		
Year Built 1935 By	Orange County	Contract No
Date of Revisions		
Designed by: B.D	County	Plans Avail. @ County
Description: Single of	pan 2 through riveted butments supported on	plate girders, RC
Spans 60°		W_36
LengthSkew	68° Rt.	#-15
		.74 GGGGG
DESCRIPTION — ON STRUCT	rure	
Bridge Width 21 eu, 20	.0°, 2° eu	
otal Width 24.5°		2 Xone LanesTracks
Median		St. Girder (0000) Rail Type
ert. Clearance over deck	Unimpaired	Appr. Rdwy. Width
		Nene al
ESCRIPTION — UNDER STR		
loadway Section None	•	1
		` \
Clearances: Vert	Horiz.;	R
learances: Vert	Horiz.;	Lt. R

(1) CON'T

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION 55C-172 Bridge No. **BRIDGE REPORT** DS-M58A (REV. 1/75) Mag 4/ 1978 **DESCRIPTION - HYDRAULICS** Channel Hatural Navigable: Yes 🔲 No 🟝 MAINTENANCE Custodian Genety Owner County ORIGINAL ORIGINAL **APPRAISAL CONDITION RATING** 7 Overall Deck 7 **Deck Geometry** Superstructure **Underclearances** Substructure & Pipes Horiz. **Channel & Channel Protection Retaining Walls** Safe Load Capacity Waterway Adequacy Approach Rdwy. Alignment 80 Approach Rdwy. Alignment Estimated Remaining Life County Action Required by Cistrict: Yes No Widenable? Yes 🔲 No 🙎 Conditional 🦳 (1978)400 03 8" steel pipe attached to west side. Cade 4 - Rest specks throughout

COMPLETION OF STHEOTHERS

LOAD CAPACITY

KAK YESSEMBERS

CTE tub es: Bist. Of Less! Ass't Orange (2) The concrete bearing pedestals at the bouth and are expected under both girders.

Calculated by the Office of Structures rating section.

Speny inject creaks in ecnorate bearing podestals at south and.

J. R. Martin Original signed by C. E. Breuscard