
Bridge Inspection Records Information System

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State of California
Department of Transportation

**Division of Maintenance
Structures Maintenance & Investigations**



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0175
Facility Carried: SILVERADO CYN RD
Location : 2.2 MI E OF SANTIAGO RD
City :
Inspection Date : 29-MAY-01

Bridge Inspection Report

Inspection Type

Routine ☒ Group A ☐ Underwater ☐ Special ☐ Other ☐

Name : LADD CANYON

CONSTRUCTION INFORMATION

Year Built : 1947
Year Widened : N/A
Length (m) : 15.5

Skew (degrees): 60
No. of Joints : 0
No. of Hinges : 0

Description of Structure : Simply supported single span steel girders (4 each) with RC closed end backfilled cantilever abutments, all supported upon spread footings.

Span Configuration : (W) 1 @ 14.9 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : M - 13.5 OR H - 15

Inventory Rating : 20.8 metric tons

Operating Rating : 33.5 metric tons

Permit Rating : 00000

Posting Load : Type 3 N/A english tons

Calculation Method : LOAD FACTOR

Calculation Method : LOAD FACTOR

Type 3S2 N/A english tons Type 3-3 N/A english tons

DESCRIPTION ON STRUCTURE

Bridge width : (S) 0.4 m br, 2 @ 3.6 m, 0.4 m br (N)

Total Width : 8.2 m

Net Width : 7.30 m

Rail Description : MBGR

No. of Lanes : 2

Min. Vertical Clearance : Unimpaired

Rail Code : 0000

DESCRIPTION UNDER STRUCTURE

Channel Description : Natural earth trapezoidal with a cobbled bottom.

CONDITION OF STRUCTURE

The top of footing for the westerly abutment is exposed along its downstream half.

Spalls have proliferated the deck exposing deck reinforcements in the process. Concrete cover for exposed rebar was measured to be 1/2" +/- (0)

Otherwise, the structure is in good condition.

MISCELLANEOUS

Pedestrian access beneath the structure is from the southeast quadrant.

ELEMENT LEVEL INSPECTION RATINGS

| F# | Elem No. | Element Description | Env | Total Units Quantity | Qty in each Condition State | | | | |
|--------|-------------|--------------------------------|-----|-------------------------|-----------------------------|-------|-------|-------|-------|
| | | | | | St. 1 | St. 2 | St. 3 | St. 4 | St. 5 |
| 01 12 | | Concrete Deck - Bare | 2 | 110 sq.m. | 110 | 0 | 0 | 0 | 0 |
| 01 107 | | Painted Steel Open Girder/Beam | 2 | 62 m. | 62 | 0 | 0 | 0 | 0 |
| 01 215 | | Reinforced Conc Abutment | 2 | 34 m. | 34 | 0 | 0 | 0 | 0 |
| 01 332 | | Timber Bridge Railing | 2 | 14 m. | 14 | 0 | 0 | 0 | 0 |

Bridge No.: 55C0175

Location: 2.2 MI E OF SANTIAGO RD

Inspection Date: 29-MAY-01

WORK RECOMMENDATIONS

Construct a scour mitigation device downstream of the structure to prevent further degradation of the streambed.

| <u>Item#</u> | <u>Rec. Date</u> | <u>Work By</u> | <u>Work Id.</u> | <u>Prog. Method</u> | <u>Cost</u> |
|--------------|------------------|----------------|-----------------|---------------------|-------------|
| 1 | 28-JAN-1999 | Other | 40175X99028X | | |

Inspected By : M. Ogata

M. Ogata
Registered Civil Engineer



CC : TMRut
Orange County

Bridge No.: 55C0175

Location: 2.2 MI E OF SANTIAGO RD

Inspection Date: 29-MAY-01

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME - CALIFORNIA 069
 (8) STRUCTURE NUMBER 55C0175
 (5) INVENTORY ROUTE (ON/UNDER) - ON 1 40 000000
 (2) HIGHWAY AGENCY DISTRICT 12
 (3) COUNTY CODE 059 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED - LADD CANYON
 (7) FACILITY CARRIED - SILVERADO CYN RD
 (9) LOCATION - 2.2 MI E OF SANTIAGO RD
 (11) MILEPOINT/KILOMETERPOINT 0
 (12) BASE HIGHWAY NETWORK - NOT ON NET 0
 (13) LRS INVENTORY ROUTE & SUBROUTE
 (16) LATITUDE 33 DEG 44 MIN 52 SEC
 (17) LONGITUDE 117 DEG 38 MIN 24 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****

(43) STRUCTURE TYPE MAIN: MATERIAL - STEEL
 TYPE - STRINGER/MULTI-BEAM OR GDR CODE 3 02
 (44) STRUCTURE TYPE APPR: MATERIAL -
 TYPE - CODE
 (45) NUMBER OF SPANS IN MAIN UNIT 1
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE - CONCRETE CODE 1
 B) TYPE OF MEMBRANE - NONE CODE 0
 C) TYPE OF DECK PROTECTION - NONE CODE 0

***** AGE AND SERVICE *****

(27) YEAR BUILT 1947
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON - HIGHWAY 1
 UNDER - WATERWAY 5
 (28) LANES: ON STRUCTURE 02 UNDER STRUCTURE
 (29) AVERAGE DAILY TRAFFIC 2000
 (30) YEAR OF ADT 1998 (109) TRUCK ADT 1 %
 (19) BYPASS, DETOUR LENGTH 199 KM

***** GEOMETRIC DATA *****

(48) LENGTH OF MAXIMUM SPAN 15.5 M
 (49) STRUCTURE LENGTH 15.5 M
 (50) CURB OR SIDEWALK: LEFT 0 M RIGHT 0 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 7.3 M
 (52) DECK WIDTH OUT TO OUT 8.2 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 6.7 M
 (33) BRIDGE MEDIAN - CLOSED (NO BARRIER) 2
 (34) SKEW 60 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 7.3 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF - NOT H/RR 0 M
 (55) MIN LAT UNDERCLEAR RT REF - NOT H/RR 0 M
 (56) MIN LAT UNDERCLEAR LT 0 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL - NOT APPLICABLE CODE N
 (111) PIER PROTECTION - NOT REQUIRED CODE 1
 (39) NAVIGATION VERTICAL CLEARANCE 0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR 0 M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0

***** SUFFICIENCY RATING = 46.1 *****

STATUS =

HEALTH INDEX = 100

***** CLASSIFICATION ***** CODE

(112) NBIS BRIDGE LENGTH - YES Y
 (104) HIGHWAY SYSTEM - NOT ON NHS 0
 (26) FUNCTIONAL CLASS - LOCAL URBAN 19
 (100) DEFENSE HIGHWAY - NOT STRAHNET 0
 (101) PARALLEL STRUCTURE - NONE EXISTS N
 (102) DIRECTION OF TRAFFIC - 2 WAY 2
 (103) TEMPORARY STRUCTURE -
 (105) FEDERAL LANDS HIGHWAY - NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - NOT ON NET 0
 (20) TOLL - ON FREE ROAD 3
 (21) MAINTAIN - COUNTY HIGHWAY AGENCY 2
 (22) OWNER - COUNTY HIGHWAY AGENCY 2
 (37) HISTORICAL SIGNIFICANCE - NOT ELIGIBLE 5

***** CONDITION ***** CODE

(58) DECK 7
 (59) SUPERSTRUCTURE 7
 (60) SUBSTRUCTURE 7
 (61) CHANNEL & CHANNEL PROTECTION 8
 (62) CULVERTS N

***** LOAD RATING AND POSTING ***** CODE

(31) DESIGN LOAD - M - 13.5 OR H - 15 2
 (63) OPERATING RATING METHOD - LOAD FACTOR 1
 (64) OPERATING RATING - 33.5
 (65) INVENTORY RATING METHOD - LOAD FACTOR 1
 (66) INVENTORY RATING - 20.8
 (70) BRIDGE POSTING - Equal to or above legal loads 5
 (41) STRUCTURE OPEN, POSTED OR CLOSED - A
 DESCRIPTION - OPEN, NO RESTRICTION

***** APPRAISAL ***** CODE

(67) STRUCTURAL EVALUATION 5
 (68) DECK GEOMETRY 4
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
 (71) WATER ADEQUACY 8
 (72) APPROACH ROADWAY ALIGNMENT 6
 (36) TRAFFIC SAFETY FEATURES 0000
 (113) SCOUR CRITICAL BRIDGES 6

***** PROPOSED IMPROVEMENTS *****

(75) TYPE OF WORK - CODE
 (76) LENGTH OF STRUCTURE IMPROVEMENT M
 (94) BRIDGE IMPROVEMENT COST
 (95) ROADWAY IMPROVEMENT COST
 (96) TOTAL PROJECT COST
 (97) YEAR OF IMPROVEMENT COST ESTIMATE
 (114) FUTURE ADT 2000
 (115) YEAR OF FUTURE ADT 2015

***** INSPECTIONS *****

(90) INSPECTION DATE 05/01 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL - NO -1 MO A)
 B) UNDERWATER INSP - NO -1 MO B)
 C) OTHER SPECIAL INSP - NO -1 MO C)



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 55C0175
Facility Carried: SILVERADO CYN RD
Location : 2.2 MI E OF SANTIAGO RD
City :
Inspection Date : 12-DEC-00
Inspection Type

Bridge Inspection Report

Routine ☐ Group A ☐ Underwater ☐ Special ☐ Other ☒

Name : LADD CANYON

CONSTRUCTION INFORMATION

Year Built : 1947 Skew (degrees): 60
Year Widened : N/A No. of Joints : 0
Length (m) : 15.5 No. of Hinges : 0

Description of Structure : Simply supported single span steel girders (4 each) with RC closed end backfilled cantilever abutments, all supported upon spread footings.

Span Configuration : (W) 1 @ 14.9 m (E) c/c

LOAD CAPACITY AND RATINGS

Design Live Load : M - 13.5 OR H - 15
Inventory Rating : 20.8 metric tons Calculation Method : LOAD FACTOR
Operating Rating : 33.5 metric tons Calculation Method : LOAD FACTOR
Permit Rating : 00000
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 : (S) 0.4 m br, 2 @ 3.6 m, 0.4 m br (N)
Total Width : 8.2 m Net Width : 7.30 m No. of Lanes : 2
Rail Description : MBGR Rail Code : 0000
Min. Vertical Clearance : Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description : Natural earth trapezoidal with a cobbled bottom.

HISTORY

Reports dated 01/28/99 and 05/29/01 indicate footing exposure at Abutment 1, along the downstream half.

A field review report, dated 10/10/97, was done by West Consultants, Inc. for Caltrans Local Agency Seismic Retrofit Program. The report concluded that the maximum channel bottom degradation that will occur is approximately 1.52m. The report also indicates that the local scour occurring along the right abutment footing is caused by the concentration of flow due to the old bridge foundation.

REVISIONS

The National Bridge Inventory (NBI) Item 113 code has been revised from 6 to 2.

SCOUR

This report addresses hydraulic issues only. The structure scour potential has been assessed in accordance with the FHWA Technical Advisory T5140.23, "Evaluating Scour at Bridges". The NBI Item 113 Code, "Vulnerability to Scour", has been changed to 2: "Bridge is scour critical; field review indicates that extensive scour has occurred at bridge foundations, which are determined to be unstable by: an engineering evaluation of the observed scour condition reported by the bridge inspector".

This report was generated based on an office investigation. There were also no As-Built plans available for this structure.

Due to the history of footing exposure at Abutment 1, the bridge is considered scour critical.

RECOMMENDATIONS

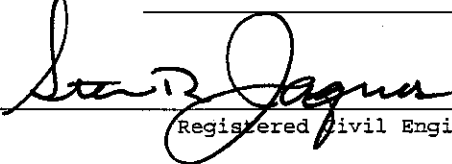
Historically, this structure has survived high stream flows. However, given the fact that the foundation type is unknown and the potential exists for higher stream flows, it is recommended, as a precautionary measure, that the Local Agency monitor this structure during flood events.

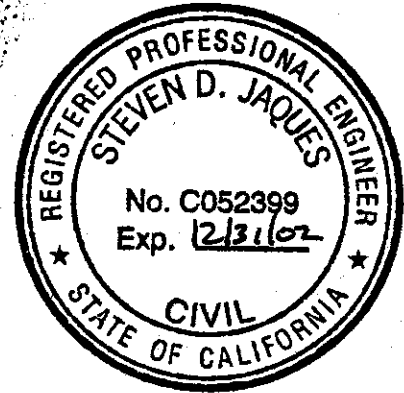
Bridge No.: 55C0175

Location: 2.2 MI E OF SANTIAGO RD

Inspection Date: 12-DEC-00

Inspected By : Devinder Sandhu


Registered Civil Engineer



CC : Tom Rut, Maintenance
Steve Jaques, Structures Hydraulics
Mak Ogata, ABME-South
Orange County

Bridge Number 55C-175

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

Date of Investigation July 5, 1995

TYPE OF INVESTIGATION/REPORT

| | | | |
|------------|----------|--------|-----|
| BIENNIAL | <u>X</u> | DAMAGE | ___ |
| CATEGORY A | ___ | OTHER | ___ |
| UNDERWATER | ___ | OFFICE | ___ |

Name LADD CANYON (Silverado Canyon Road, 2.2 miles east of
Santiago Canyon 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:

- A. Large spalls have proliferated the deck exposing deck reinforcements in the process. Concrete cover for exposed rebar was measured to be 1/2"±.
- B. Paint on timber railing has deteriorated.

Condition of structure is good.

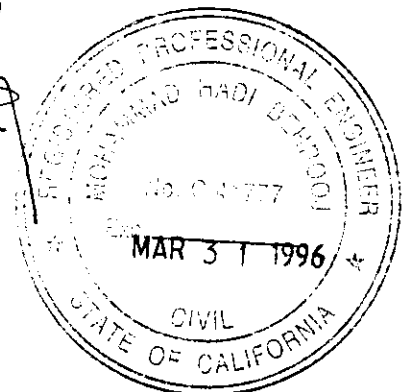
WORK RECOMMENDED:

- 1. Repair deck spall for location "A". Chip 1" behind the exposed rebar and pour with set 45.
- 2. Repaint timber railing.

ENCROACHMENT:

One 0.20 m diameter welded steel pipe suspended under south bridge deck overhang.

M. Hadi Behrooj
By [Signature]
G. P. Balinghasay



GPB:cd
cc: CDHarris
Orange County
WLindsey

INFORMATION ONLY - NOT FOR UPDATE

| BRIDGE NUMBER | FRAME | INSPECTION DATE |
|---------------|-------|-----------------|
| 55C0175 | 01 | 070595 |
| 1 | 9 | 11 |
| 8 | | 16 |

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

DISTRICT _____ 12
COUNTY _____ ORA
ROUTE _____
POSTMILE _____
NAME _____

[illegible]

BY:

07/11/95

Bridge No. 55C-175

Name LADD CANYON (Silverado Canyon
Road, 2.2 miles east of Santiago
Canyon 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 suspended under south bridge deck overhang. |

HBD M 30

Bridge Number 55C-175

TYPE OF INVESTIGATION/REPORT

BIENNIAL X DAMAGE
CATEGORY A OTHER
UNDERWATER OFFICE

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

Date of Investigation April 22, 1993

Name LADD CANYON (Silverado Canyon Road, 2.2 miles east of
Santiago Canyon Road)

CONDITION RATINGS:


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

Channel & Channel Protection

8

CONDITION OF STRUCTURE:

Condition of the structure is good.


Henry Ma

HM:cd

cc: INagai (2)
County of Orange



(ATTACHMENT A)

INFORMATION ONLY - NOT FOR UPDATE

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

| | |
|----------|-------|
| DISTRICT | 12 |
| COUNTY | ORA |
| ROUTE | *** |
| POSTMILE | ***** |
| NAME | |

H. MA

BY:

BRIDGE REPORT

14W14

Bridge No.

350 - 175

DS-M58 (REV. 1/91)

Location

12 - Ora - CR

Dist

Co

Rte

City

REVISED ORIGINAL REPORT

Date of Investigation

April 18, 1991

Name LADD CANYON (Silverado Canyon Road, 2.2 miles east of
Santiago Canyon Road)

Lat. 33° - 44.9'N Long. 117° - 38.4'W

Custodian County of Orange Owner County of Orange

STRUCTURAL DATA AND HISTORY

Year Built 1947 By County of Orange Contract No. Unknown

Designed by: County Plans Avail. @ County

Description: Single span simply supported steel stringers (4 each)
and RC deck supported by closed end backfilled RC
cantilever abutments on spread footing.

Spans (W) 49' (E)

Length 51' NBIS Bridge Length Yes Skew 60° Right

Number Of Intermediate Joints: @Hinges None @Bents None

Maximum Column/Pier Height: (Less than 20') X (20'-29') (30' & Over)

Design Live Load H15 Design Method Unknown

DESCRIPTION - ON STRUCTURE

Bridge Width (S) 1.5'br 24' 1.5'br (N)

Total Width 27' Net Width 24' Lanes 2 Tracks None

Median None Rail Type (S) Timber rail
(N) Metal beam

0000

Vert. Clearance over deck Unimpaired Appr. Rdwy. Width 22'

Deck Type 1 Wearing Surface/Prot. Sys. 100 Concrete/none

Alignment Tangent

DESCRIPTION - UNDER STRUCTURE

Roadway Section None

Clearances: Road: Vert. Horiz. Lt. ; Rt.

Lanes Tracks

Facilities Crossed Ladd Canyon (E18)

April 10, 1991

DESCRIPTION - HYDRAULICS

Channel Natural stream with gravel bottom

Navigable: Yes ☐ No ☒ Clearances: Vert. Horiz.Pier/Abutment Protection (For Navigation) ☐

| TRAFFIC INFORMATION | DECK | YEAR | UNDER | YEAR |
|-------------------------------------|-----------------|--------------------------------|-------|------|
| Average Daily Traffic & Year : | 2,000 | 1989 | N | |
| Average Daily Traffic (Future) : | 2,000 Est | 2010 | N | |
| Average Daily Trucks (% OF ADT) : | 1% Est | | N | |
| Bypass Detour Length | 99 miles | | N | |
| Shell Route: | No | | No | |
| Functional Classification : | 09 | | N | |
| LOAD RATINGS: | Inventory HS 13 | Operating HS 21 | | |
| | Permit 00000 | Computation Method Load Factor | | |

CONDITION RATINGS:

| | | | | | |
|------------------------------|---|----------------|---|--------------|-----|
| Deck | 7 | Superstructure | 8 | Substructure | 8 |
| Channel & Channel Protection | 8 | Culvert | N | Widenable | Yes |

APPRAISAL RATINGS:

| | | | |
|-------------------|---|----------------------------|---|
| Waterway Adequacy | 9 | Approach Roadway Alignment | 6 |
|-------------------|---|----------------------------|---|

Date of Revisions

CONDITION OF STRUCTURE:

There is moderate transverse cracking in the concrete bridge deck and numerous deck spalls and patches from previous years.

Condition of the structure is good.

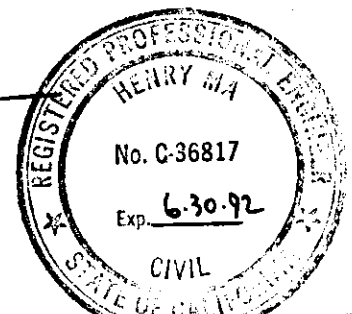
PAINT CONDITION:

Code 2. Condition of paint is good.

ENCROACHMENT:

8" welded steel pipe suspended under south bridge deck overhang.

Henry Ma



HM:ms

cc: INagai (2)
County of Orange

Bridge No. 55C-175
Location 12-Ora - CR
Dist. Co. Rte. City
Date of Investigation 4-11-89

Name LADD CANYON (Silverado Canyon Road, 2.2 miles east of Santiago Canyon Road)

CONDITION RATING:

Deck 6 Superstructure 7 Substr.&Pipes 7
Channel & Channel Protection 6 Culvert N Widenable? Yes

TYPE OF INVESTIGATION/REPORT

BIENNIAL X DAMAGE
CATEGORY A OTHER
UNDERWATER OFFICE

CONDITION OF STRUCTURE:

Condition of the structure is fair.

PAINT CONDITION:

Code 1 - Structural steel has been recently painted. Condition of paint is excellent.

REVISION:

Location: 12-Ora-CR
Name: LADD CANYON (Silverado Canyon Road, 2.2 miles east of Santiago Canyon Road).

WORK DONE:

Metal beam rail elements was constructed on original timber posts to replace timber bridge rail on north side.

WORK RECOMMENDED:

None.

RECOMMENDED POSTING:

None.

SUBSTRUCTURE CODING UPDATE:

Single span structure.

2 RC closed end seated abutments on spread footing.

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

Henry Ma



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

Bridge No. 55C-175
Location 7-Ora-CR
Dist - Co - Rte - PM - City
Date of Investigation April 20, 1987

Name SILVERADO CANYON CREEK (Silverado Canyon Rd., 2.2 miles E. of Santiago Cyn. Rd.)

| CONDITION RATING: | | | APPRAISAL RATING: | |
|---------------------------------------|--------------------------|--------------------------|-------------------|--|
| Deck <u>6</u> | Superstructure <u>7</u> | Substr. & Pipes <u>7</u> | Overall <u>3</u> | |
| Channel & Channel Protection <u>6</u> | Retaining Walls <u>N</u> | | | |

Widenable? Yes ☒ No ☐ Conditional ☐
Action Required By County Yes ☐ No ☒

PRIORITY
A - Immediate Action
B - Early Scheduling
C - Routine Maint.
O - For Record Only

REVISION:

Appraisal Rating: Overall 3
Average Daily Traffic - 2,000 (1985)

WORK DONE:

Concrete deck spalls have been patched.
Steel stringer superstructure has been repainted 100%.

CONDITION OF STRUCTURE:

Overall condition of the structure is good.

CONDITION OF PAINT:

Code 1 - Paint is in excellent condition. Superstructure has been recently repainted.

RECOMMENDED POSTING:

None

WORK RECOMMENDED:

None

HM:pht
cc: INagai (2)
Orange County (2)

Henry Ma



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTARY BRIDGE REPORT
DH-08 M19 (REV. 1/78)

Bridge No. 55C-175
Location 7-Ora-CR
San Joaquin Co. - San Joaquin Co.
Date of Investigation January 9, 1986

Name SILVERADO CANYON CREEK (Silverado Canyon Road, 2.2 miles E. of Santiago Road)

CONDITION RATING:

APPRAISAL RATING:

Deck 6 Superstructure 7 Substr. & Pipes 7 Overall 7
Channel & Channel Protection 6 Retaining Walls N

Widenable? Yes ☒ No ☐ Conditional ☐

Action Required by County Yes ☒ No ☐

PRIORITY

A - Immediate Action
B - Early Scheduling
C - Routine Maint.
O - For Record Only

WORK NOT DONE:

Some deck spalls have been patched, but many more spalls remain to be patched.

CONDITION OF STRUCTURE:

On the westbound roadway approach to the structure, the AC pavement is heaved-up about 1" which creates a wheel impact on the structure.

There are numerous deck spalls with exposed reinforcing steel.

Otherwise, the overall condition of the structure is good.

CONDITION OF PAINT:

Code 4, freckle rust spots are beginning to appear on girder flanges and webs. The paint condition is poor.

RECOMMENDED POSTING:

None

WORK RECOMMENDED:

1. Patch the deck spalls.

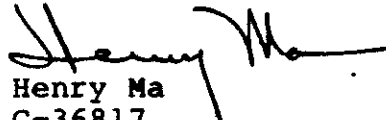
B

BRIDGE No. 55C-175
SHEET 2 of 2
DATE January 9, 1986

WORK RECOMMENDED:

2. Reduce the pavement offset of the westbound roadway at east bridge paving notch.

B


Henry Ma
C-36817

HM:pdh
cc: INagai (2)
Orange County (2)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTARY BRIDGE REPORT
DH-05 M19 (REV. 1/74)

Bridge No. 55C-175
Location 7-Ora-CR
Dist - Co - Hqs - File - City
Date of Investigation October 26, 1983

Name SILVERADO CANYON CREEK (Silverado Canyon Road, 2.2 mile E. of
Santiago Road)

CONDITION RATING:

Deck 6 Superstructure 7 Substr. & Pipes 7 Overall 7
Channel & Channel Protection 6 Retaining Walls N

PRIORITY

Widenable? Yes ☒ No ☐ Conditional ☐
County
Action Required by CDMRK Yes ☒ No ☐

A - Immediate Action
B - Early Scheduling
C - Routine Maint.
O - For Record Only

WORK NOT DONE:

The previously recommended work to repair the deck spalls has not been done.

CONDITION OF STRUCTURE:

The reinforcing steel is exposed in the deck spalls.
Otherwise, the overall condition of the structure is good.

PAINT:

Code 3, the paint is in fair condition.

RECOMMENDED POSTING:

None

RECOMMENDATION:

Patch the deck spalls with set 45 concrete.

B

E. L. Neff
E. L. Neff
C-28703

ELN:pdh
cc: DRHiggins (2)
Orange County (2)

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

Bridge No. 55C-175
Location 07-Ora-CR
Dist - Co - Rte - PM - City
Date of Investigation October 19, 1981

Name SILVERADO CANYON CREEK (Silverado Canyon Road, 2.2 miles east of Santiago Canyon Road)

CONDITION RATING:

APPRAISAL RATING:

Deck 6 Superstructure 7 Substr. & Pipes 7 Overall 7
Channel & Channel Protection 6 Retaining Walls (N)

Widenable? Yes ☒ No ☐ Conditional ☐

County:
Action Required by District Yes ☒ No ☐

WORK DONE:

Some previously recommended work has been done.

CONDITION OF STRUCTURE:

There are many transverse deck cracks. Several deck spalls with rebar exposed.

The overall condition of the structure is fair.

PAINT:

Code 3, the paint is in fair condition.

RECOMMENDED POSTING:

None.

RECOMMENDATION:

Repair the deck spalls.

E. L. Neff
E. L. Neff
C 28703

ELN:cd
cc: DRHiggins (2)
Orange County (2)

Bridge No. **550-175**
Other No. **SV-8**
P.U.C. No. _____
Location **07-Orn-0-CR**
Dist - Co - Rte - PM - City
Date of Investigation **May 11, 1978**

SEE REVISION
ORIGINAL REPORT
Name **Silverado Canyon Creek (Silverado Cyn Rd., 2.2 mi. E. of Santiago Canyon Road)**
Lat. **33°-44.9'** Long. **117°-38.4'**

STRUCTURAL DATA AND HISTORY

Year Built **1947** By **Orange County** Contract No. **-----**

Date of Revisions _____

Designed by: B.D. ☐ **Orange County** Plans Avail. @ **County**

Description: **Single span 4 WF steel girders, RC diaphragm abutments supported on spread footings.**

Spans **49'**
Length **51'** Skew **60° Rt** Design LL **N 15**
Ratings: Inventory **HS 12.78** Operating **HS 20.92** Permit **00000**

DESCRIPTION - ON STRUCTURE

Bridge Width **1.5 cu, 24.0, 1.5 cu**
Total Width **26.5'** Lanes **2** Tracks **None**
Median **None** Rail Type **Timber (0000)**
Vert. Clearance over deck **Unimpaired** Appr. Rdwy. Width **24'**
Wearing Surface **None** Deck Seal **None**
Alignment **Curve R = 250'**

DESCRIPTION - UNDER STRUCTURE

Roadway Section **None**
Clearances: Vert. _____ Horiz. _____ Lt. _____ Rt. _____
Lanes _____ Tracks _____ Pumpplant: None ☐ See Br. No. _____
Facilities Crossed **Silverado Canyon Creek**

Bridge No. 55C-175
Date May 11, 1978

DESCRIPTION - HYDRAULICS

Channel Natural

Navigable: Yes ☐ No ☒ Clearances: Vert. _____ Horiz. _____

MAINTENANCE

Custodian _____ County _____ Owner _____ County _____

ORIGINAL
CONDITION RATING

| | |
|------------------------------|------------|
| Deck | <u>6</u> |
| Superstructure | <u>7</u> |
| Substructure & Pipes | <u>7</u> |
| Channel & Channel Protection | <u>6</u> |
| Retaining Walls | <u>---</u> |
| Approach Rdwy. Alignment | <u>6</u> |
| Estimated Remaining Life | <u>20</u> |

ORIGINAL
APPRAISAL

| | |
|--------------------------|-------------------|
| Overall | <u>7</u> |
| Deck Geometry | <u>3</u> |
| Underclearances | Vert. <u>---</u> |
| | Horiz. <u>---</u> |
| Safe Load Capacity | <u>6</u> |
| Waterway Adequacy | <u>6</u> |
| Approach Rdwy. Alignment | <u>3</u> |

Widenable? Yes ☒ No ☐ Conditional ☐

County XXXXX
Action Required by District: Yes ☒ No ☐

AVERAGE DAILY TRAFFIC:

1000 •

EXCESS EXISTING LOADS:

99

EXCESSIVE WEIGHTS:

8" steel water line attached to south overhang.
Code 3

PAINT:

CONDITION OF STRUCTURE:

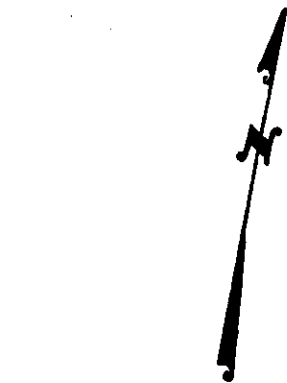
There are numerous spalled areas, with reinforcing steel exposed, in the concrete deck. Calculated by the Office of Structures rating section. Remove all unsound concrete at spalled deck areas and patch w/ "Barco 240" or "U-Crete".

LOAD CAPACITY:

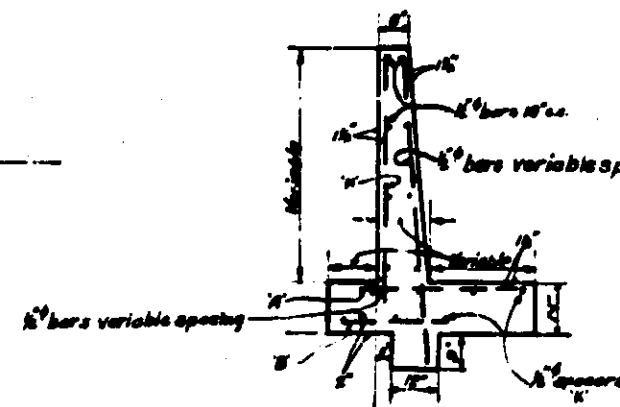
RECOMMENDATIONS:

J. R. Martin
Original signed by
By C. E. Brouhard

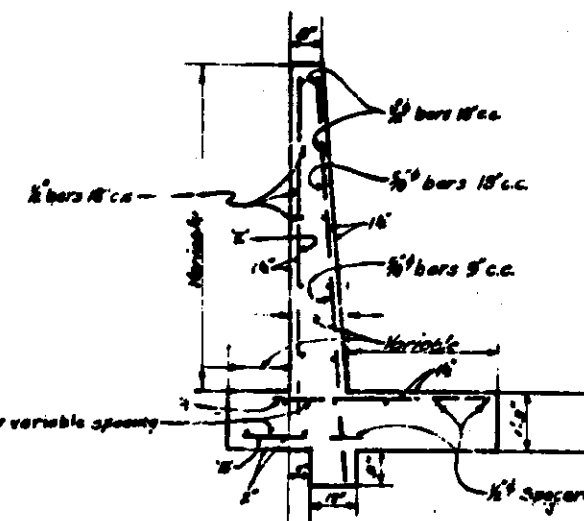
CMB:mh
cc: Dist. Of Local Ass't
Orange (2)



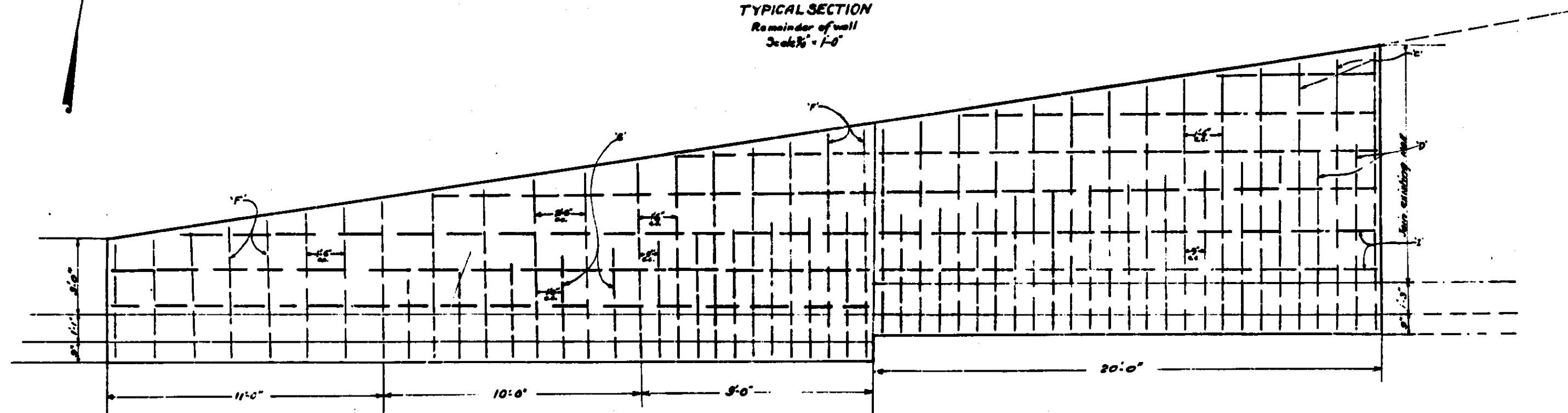
LOCATION PLAN
Scale 1" = 20'



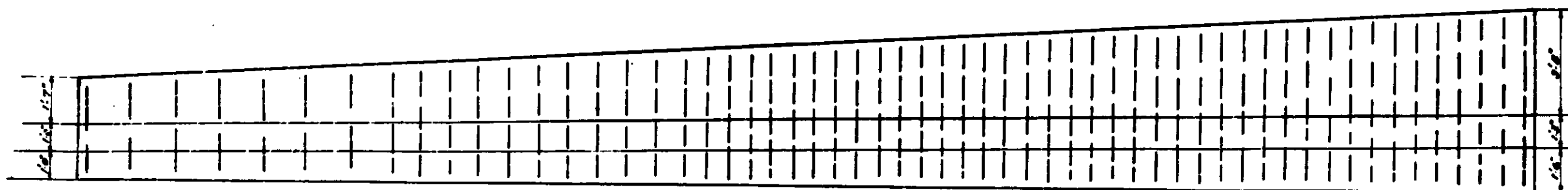
TYPICAL SECTION
Remainder of wall
Scale $\frac{1}{8}" = 1'-0"$



TYPICAL SECTION
From existing wall westerly 20'
Scale $\frac{3}{8}'' = 1'-0''$



ELEVATION
Scale 3/8" = 1'-0"



PLAN
Scale 3/8"=1'-0"

ORANGE COUNTY HIGHWAY DEPT.
REINFORCED CONCRETE
RETAINING WALL
LADD CANYON BRIDGE S.V. 8
FEB. 1947 SCALE AS SHOWN

Bridge #SV-8
Ladd Canyon Bridge
Reinforced Concrete
Retaining Wall
Sheet 1 of 1
Red:225/ Scale as shown
Vellum