

STRUCTURE NO. 05588

ROUTE 74
over
HOCKANUM RIVER
VERNON

Special Inspection
on
5/26/2011

Inspected by Team 3
for Area 3

TEAM:	Forwarded to TE3 Paul D'Attilio	Date	5/31/2011
TE3:	Reviewed by TE3 Paul F. D'Attilio	Date	6/16/11
	BMM Required		NO
	Town Bridge		NO
	Rating <= 5 (Items 58,59,60 or 62)		YES
	Rating Change 2 or More Values		NO
	Forwarded to Supervisor TDL	Date	6/20/11
	Forwarded to "To Be Copied Drawer" <input type="checkbox"/>	Date	
	Date BRI-19 Entered		6/15/11
SUPERVISOR:	Reviewed by Supervisor TDL	Date	7/18/11
SUPPORT:	Date Copies Made 7/18/11	BMM No	TRAMO
	Scanned By: 8	Date Scanned	8/14/11
		PDF Box No	

NBI: Yes

Structure No. Town
Inspection Date Inspectors

TABLE OF CONTENTS

Loose Forms (not bound in report)

Number of
Sheets Enclosed

Maintenance Memo		<input type="text"/>
Flagging Memos		<input type="text"/>
PONTIS Element Data Collection Form		<input type="text"/>
Plan Sheets	Already on File <input type="checkbox"/>	<input type="text"/>

Bound Report Pages

Title Cover Sheet		<input type="text" value="1"/>
Table of Contents		<input type="text" value="1"/>
Executive Summary		<input type="text"/>
Field Notes		<input type="text" value="2"/>
Calculations:	Load Rating Evaluation	<input type="text"/>
	Quantities & Cost Estimate	<input type="text"/>
Photo Sheets		<input type="text" value="2"/>
Photo Images		<input type="text" value="4"/>

Forms

BRI-18 Bridge Inspection Report Form	<input type="text" value="7"/>
BRI-19 Highway Bridge Inventory Form	<input type="text" value="2"/>

Comments:

Bridge Number

05588

STATE OF CONNECTICUT

DEPARTMENT OF TRANSPORTATION
BRIDGE SAFETY & EVALUATION

STRUCTURE EVALUATION

SHEET 1 OF 2 FORM BR-19 REV 10/00

SHEET _____ OF _____

Inspected By: S. Sandberg & P. Ventouras

Sufficiency Rating

Previous Inspection Date

69-04-62.95
5/21/2010

BS&E Received

Data Entry By:

PRD

Copies Made

Data Entry Date:

6/15/11

IDENTIFICATION

Bridge Name VERNON Town Code 78250

Inventory Route:

A) Record Type

B) Signing Prefix

C) Level of Service

1 State Highway

3 Mainline

D) Route Number 00074

E) Directional Suffix 0 NA

Feature Intersected HOCKANUM RIVER

Facility Carried:

ROUTE 74

Location

5 MI WEST OF ROUTE 83

11) Milepoint

4.58 Miles

16) Latitude

41deg 51 min 42.00 sec

17) Longitude

72deg 29 min 12.00 sec

98) Border Bridge:

A) State Code

B) Percent Responsibility

C) Border Town Name

99) Border Bridge Structure No

STRUCTURE TYPE AND MATERIAL

43) Structure Type, Main:

A) Material 3 Steel

B) Design Type 19 Culvert (includes tram)

44) Structure Type, Approach:

A) Material 0 Other

B) Design Type 0 Other

45) Number of Spans, Main Unit

46) Number of Approach Spans

107) Deck Structure Type

108) Wearing Surface/Protective System:

A) Type of Wearing Surface

B) Type of Membrane

C) Type of Deck Protection

90) Inspection Date

Inspection Team

91) Frequency Class:

Indepth Insp

Deck Survey

Access

Flagman

6/17/2004

1/1/1900

0

01

CRITICAL FEATURE INSPECTIONS

Type Frequency Team Date

Fracture:

Uw/ter:

Special:

Z

12

3

Steel

AGE AND SERVICE

27) Year Built 1955

42) Type of Service:

A) On 1 Highway

B) Under

28) Number of Lanes:

A) On 2

B) Under

29) Average Daily Traffic

109) Percent Truck

30) Year of ADT

19) Bypass, Detour Length

106) Year Reconstructed

5 WATERWAY

7200

3% Half ADT?: No

2007 6miles

GEOMETRIC DATA

48) Length of Max Span

49) Structure Length

50) Curb or Sidewalk Widths:

A) Left

51) Brg Rdwy width, curb-curb

52) Deck Width, Out-Out

32) Approach Roadway Width

33) Bridge Median

34) Skew Angle

35) Structure Flared

10) Inv. Rte. Min. Vert Clearance

47) Log Inv. Rte. Total Horiz Clr.:

47) RLog Inv. Rte. Total Horiz. Clr.:

53) Min Vert Clearance Over Bridge

54) Min Vert Under Clearance

55) Min Lat Under Clearance on Right

56) Min Lat Under Clearance on Left

BRIDGE COMMENTS

RED FLAG

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

Bridge #: 05588

Inspection Date: 5/26/2011

Inspection Type:	Routine	Previous Inspection Date:	5/21/2010	Snooper Required:	No
Inspection Performed By:	Team 3	Feature Carried:	ROUTE 74	Snooper Used:	No
Town:	VERNON	Feature Intersected:	HOCKANUM RIVER	Year Built:	1955
Location:	.5 MI WEST OF ROUTE 83	Main Design:	Culvert (includes frame culverts)	Year Rebuilt:	-
Main Material:	Steel				

Visits

Inspectors:

Visit Date:	Temp:	Start Time:	End Time:	Inspector:	Task:
5/26/2011	70	9:00:00 AM	10:00:00 AM	J. Brndiar	Lead Inspector
				P. Venoutsos	Inspector

DECK:

-	Overall Rating: P
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Rating

OVERLAY:	6	THE BITUMINOUS SURFACE, OVER ABOUT TWO FEET OF BALLAST MATERIALS, OVER THE CORRUGATED METAL PIPES ARCHS, APPEARS TO HAVE BEEN RESURFACED, SINCE THE 2002 INSPECTION DATE. THE SURFACE SHOWS LONGITUDINAL PAVING JOINT LINES, LONGITUDINAL, TRANSVERSE, MULTIPLE, AND RANDOM CRACKING, SOME ARE OPEN UP TO 1/2 INCH, LIGHT BITUMINOUS SEGREGATION, AND MINIMAL TIRE WEAR.THERE WAS AN AREA OF EROSION TO THE ROADWAY EDGE, ALONG THE NORTHERLY ELEVATION, OVER THE WESTERLY PIPE ARCH, WHICH MEASURED 13 LINEAR FEET LONG, WAS UP TO 3 FEET WIDE, AND WAS UP TO 3 FEET DEEP, WHICH WAS UNDERMINING THE SHOULDER EDGE UP TO 12 INCHES. LONGITUDINAL SURFACE BREAKAGE WAS NOTED WITHIN THE UNDERMINED SHOULDER. THE AREA OF EROSION WAS BETWEEN THE SHOULDER EDGE, AND THE CONCRETE MITERED SECTION OVER THE WESTERLY PIPE. THIS AREA HAS BEEN REPAIRED WITH STONE AND BITUMINOUS CONCRETE SINCE THE 2006 INSPECTION DATE.
DECK-STR. CONDITION:	N	-
CURBS:	N	THIS STRUCTURE SHOWS NO CURBS.
MEDIAN:	N	THIS STRUCTURE SHOWS NO BRIDGE MEDIAN.
SIDEWALKS:	N	THIS STRUCTURE SHOWS NO SIDEWALKS.
PARAPET:	8	A SINGLE CONCRETE RAILBASE, IS LOCATED ALONG THE SOUTHERLY ELEVATION OF THE STRUCTURE. IT HAS BEEN RECONSTRUCTED SINCE THE 2002 INSPECTION DATE. IT SHOWS

		ISOLATED VERTICAL CRACKING, WITH RUB COAT DELAMINATIONS ALONG THE CAP.
RAILING:	8	THE BRIDGE RAILING HAS BEEN UPDATED SINCE THE 2002 INSPECTION DATE. A SINGLE METAL BEAM RAILING IS CARRIED OVER BOTH ELEVATIONS OF THE STRUCTURE, FROM THE APPROACH ROADWAYS. THE SOUTHERLY RAILING IS MOUNTED TO THE RAILBASE VIA H-BEAM POSTS, EMBEDDED INTO THE RAILBASE. THE NORTHERLY RAILING IS ATTACHED VIA H-POSTS, EMBEDDED INTO THE BALLAST OVER THE STRUCTURE. THE RAILING ITSELF STILL SHOWS ONLY LIGHT RUB AREAS.
PAINT:	N	-
FENCE:	N	THIS STRUCTURE SHOWS NO FENCE.
DRAINS:	N	THIS STRUCTURE SHOWS NO DRAINS.
LIGHTING STANDARD:	N	THIS STRUCTURE SHOWS NO OVERHEAD LIGHTING.
UTILITIES TYPE/SIZE:	7	A SIXTEEN INCH WATER MAIN, IS NOTED ALONG THE SOUTHERLY ELEVATION. IT SHOWS AREAS OF PEELING PAINT, WITH EXPOSED PRIMER, AND LIGHT TO MODERATE RUST AREAS.
CONSTR JOINTS:	N	-
EXPANSION JOINTS:	N	THERE ARE NO JOINTS.

59. SUPERSTRUCTURE:

Overall Rating:

60. SUBSTRUCTURE:

Overall Rating:

Rating

61. CHANNEL & CHANNEL PROTECTION:

Overall Rating:

Rating

CHANNEL SCOUR:	<input type="text" value="8"/>	THE CHANNEL SHOWS A CONSTANT WATER DEPTH OF 12 TO 14 INCHES ALONG THE INLET. THERE APPEARS TO BE A FAIR AMOUNT OF PAST ACCUMULATED SILTATION, ALONG THE INLET. THE WATER DEPTH ALONG THE CHANNEL OUTLET, A SHORT DISTANCE FROM THE STRUCTURE, GOES TO ABOUT 3 FEET.
EMBANKMENT EROSION:	<input type="text" value="6"/>	ALL EMBANKMENTS SHOW LIGHT, TO MODERATE ENCROACHMENT, THRU -OUT.
DEBRIS:	<input type="text" value="6"/>	THERE IS A SINGLE TREE BRANCH ACROSS THE SOUTHERLY OUTLET, ABOUT 10 FEET FROM THE STRUCTURE. THERE IS STILL SOME LIGHT TIMBER DEBRIS LODGED ALONG THE OUTLET BANKS.
VEGETATION:	<input type="text" value="6"/>	THERE IS HEAVY VEGETATION GROWTH ALONG ALL EMBANKMENTS.
CHANNEL CHANGE:	<input type="text" value="6"/>	THE CHANNEL SHOWS A SWAMP TYPE ATMOSPHERE ALONG THE INLET. THE CHANNEL HAS PAST NARROWED ALONG THE OUTLET, DUE TO PAST EMBANKMENT ENCROACHMENT.
FENDER SYSTEM:	<input type="text" value="N"/>	-
SPUR, DIKES & JETTIES:	<input type="text" value="N"/>	-
RIP RAP:	<input type="text" value="N"/>	RIP-RAP IS NOT NOTED ALONG THE BANKS OF THIS CHANNEL.

62. CULVERTS & RETAINING WALL:

Overall Rating:

Rating

BARREL:	<input type="text" value="4"/>	THIS STRUCTURE IS A DUAL CELL, CORRUGATED METAL PIPE ARCH, UNDER ABOUT TWO FEET OF BALLAST MATERIALS, AND BITUMINOUS
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		OVERLAY. EACH PIPE ARCH RESTS UPON A CONCRETE STEM, WITH A CONCRETE FLOOR. A MITERED CONCRETE PAVEMENT, IS USED ALONG EACH ELEVATION OF THE STRUCTURE, FOR BANK RETENTION.
CONCRETE:	5	THIS STRUCTURE SHOWS A CONCRETE FLOOR, WITH CONCRETE STEMS. IT IS ASSUMED ALL WERE CAST IN PLACE IN A MONOLITHIC FASHION. AT THE TIME OF INSPECTION, ONLY THE UPPER STEMS, AND THEIR CAPS WERE EXPOSED. ALL STEMS SHOW MODERATE SCALE, WITH POCKETS OF SEVERE SCALING TO THE STEM CAPS. THE FLOORS, WHERE NOT COVERED WITH DEBRIS, CANNOT BE REPORTED ON, DUE TO MURKEY WATER.
STEEL:	4	BOTH PIPE ARCHES ARE IN FAIR CONDITION, WITH A GOOD SYMMETRICAL APPEARANCE OF THE TOP ARC. THE BOLT LINES ARE STRAIT, WITH THE JOINTS SHOWING NO CUSPING, OR LEAKAGE INFILTRATION. AREAS OF THE ASPHALTIC COATING HAVE PAST WORN AWAY, UP TO 3 FEET HIGH, AND LIGHT TO HEAVY RUSTING, WITH LIGHT TO MODERATE LAMINAR SHEETS, AND RANDOM PERF HOLES, ARE NOTED ALONG THE WATERLINE, AT THE STEM JUNCTIONS. AT LEAST 12 CELL RIBS WITHIN THE WESTERLY CELL SHOW MULTIPLE PERF HOLES. THE WATER DEPTH WITHIN THE EASTERLY CELL IS AS LITTLE AS 14 INCHES, DUE TO SILT ACCUMULATIONS, AND AS MUCH AS 22 INCHES IN THE WESTERLY CELL. THERE ARE ISOLATED MISSING BOLTS ALONG THE BOTTOM EDGES OF BOTH PIPES. IN THE WEST PIPE, ONE OF BOLT HOLES APPEARS TO HAVE BEEN ELONGATED. THE VERY END OF THE WESTERLY CELL, ALONG THE NORTHWESTERLY CORNER WHICH ACTS AS A BANK RETENTION, SHOWS ABOUT FOUR LINEAR FEET OF HEAVY DETERIORATION TO THE UPPER PLATE EDGE. THIS AREA OF DETERIORATION APPEARS TO BE ABOUT 6.0 INCHES HIGH.
TIMBER:	N	-
HEADWALL:	6	THE MITERED CONCRETE END TREATMENTS ALONG EACH ELEVATION OF THE STRUCTURE, SHOW LIGHT, TO MODERATE SCALING THRU-OUT THE SURFACE, WITH THE JOINTS OPEN, TO ABOUT ONE INCH. SILT INFILTRATION, WITH VEGETATION GROWTH, IS STILL NOTED WITHIN THE JOINTS OF THE SOUTHERLY END TREATMENT. THERE IS A CONCRETE SLAB SECTION ALONG THE NORTHWESTERLY CORNER, ADJACENT TO THE WATERLINE, WHICH HAS PAST ROTATED UPWARDS, UP TO 12 INCHES.
CUTOFF WALL:	N	THERE ARE NO VISIBLE CUT-OFF WALLS.
DEBRIS:	5	BOTH PIPE ARCHES SHOW ACCUMULATIONS OF SILT AND STONE UP TO 3 FEET HIGH, WHICH ARE LOCATED MAINLY ALONG THE INLET AND THE OUTLET SECTIONS OF BOTH PIPES. THERE IS AN ACCUMULATION OF MODERATE TIMBER DEBRIS LOCATED ALONG THE INLET OF THE EASTERLY CELL, WHICH EXTENDS TO THE CENTER OF THE PIPE.
RETAINING WALL STEM:	N	THIS STRUCTURE SHOWS NO WINGWALLS.
FOOTING:	N	NO FOOTINGS ARE VISIBLE.

65. APPROACH CONDITION

Overall Rating:

Rating

APPROACH SLAB:	N	-
RELIEF JOINTS:	N	-

APPROACH GUIDE RAIL:	7	A SINGLE METAL BEAM RAIL, MOUNTED ON STEEL H-POSTS, HAS BEEN INSTALLED ALONG ALL APPROACH SHOULDERS, AND CARRIED OVER THE STRUCTURE, SINCE THE 2002 INSPECTION DATE. THE RAILING IS IN GOOD CONDITION, AND SHOWS ONLY POCKETS OF LIGHT RUBS. THERE IS A BROKEN PLASTIC BLOCK STAND-OFF ALONG THE NORTHEASTERLY APPROACH RAILING, NEAR THE STRUCTURE.
APPROACH PAVEMENT:	7	THE BITUMINOUS APPROACH ROADWAYS, APPEAR TO HAVE BEEN RESURFACED SINCE THE 2002 INSPECTION DATE. THE SURFACES NOW SHOW LONGITUDINAL PAVING JOINT LINES, LONGITUDINAL CRACKING OPEN UP TO 1/2 INCH, TRANSVERSE CRACKING, LIGHT BITUMINOUS SEGREGATION, POCKETS OF MODERATE BITUMINOUS SEGREGATION, AND LIGHT TIRE WEAR.
APPROACH EMBANKMENT:	8	AN AREA OF EROSION FROM ROADWAY RUN-OFF, IS PAST NOTED ALONG THE NORTHWESTERLY APPROACH SHOULDER, MEASURING FIFTEEN FEET IN LENGTH, BY FOUR FOOT WIDE, AND UP TO ONE AND ONE-HALF FEET IN DEPTH. IT WAS ALSO PAST REPORTED AS HAVING BEGUN TO SLIGHTLY UNDERMINE THE EDGE OF THE ROADWAY SHOULDER. THIS ENTIRE AREA HAS BEEN FILLED IN WITH RIP-RAP, SINCE AT LEAST THE 2000 INSPECTION DATE.

TRAFFIC SAFETY FEATURES

Rating

BRIDGE RAILINGS:	Last Inspection: 0 Current: -	-
TRANSITIONS:	Last Inspection: 1 Current: -	-
APPROACH GUARDRAILS:	Last Inspection: 1 Current: -	-
APPR. GUARDRAIL ENDS:	Last Inspection: 1 Current: -	-

66. LOAD POSTING

- Posted Loading -

SINGLE UNIT (TONS):	Last Inspection: - Current: -	-
SEMI TRAILER (TONS):	Last Inspection: - Current: -	-
4 AXLE (TONS):	Last	-

	Inspection: - Current: -	
3S2 (TONS):	Last Inspection: - Current: -	
ADVANCE WARNING (Y/N):	N	
LEGIBILITY:	N	
VISIBILITY/LOCATION:	N	

67. MISCELLANEOUS

Rating

MIN. VERT. UNDERCLEARANCE:	Last Inspection: 0' 0" Current: 14' 2"	
POSTED CLR. UNDER BRIDGE:	Last Inspection: -' -" Current: -' -"	
POSTED CLR. ON BRIDGE:	Last Inspection: -' -" Current: -' -"	
ADVANCED WARNING (YES/NO):	No	
SPEED LIMIT (IF ANY):	Last Inspection: - Current: -	
CHARACTER OF TRAFFIC:	THE TRAFFIC VOLUME WAS LIGHT TO MODERATE DURING THE INSPECTION, WITH ALL TYPES OF VEHICLES NOTED OVER THE STRUCTURE.	

ADDITIONAL NOTES:

THE BRIDGE NUMBER OR CHANNEL NAME IS NOT POSTED AT THIS STRUCTURE. THIS INSPECTION WILL BE NOTED AS A SPECIAL.

ADDITIONAL COMMENTS:

SENIOR ENGINEER JOHN DAIGLE WAS CONTACTED ON THE DAY OF THE 2006 INSPECTION TO THE EROSION PROBLEM OVER THE STRUCTURE. A PRIORITY "B" BMM 06-253 WAS ISSUED.

Inspectors' Signatures: 1) John G. Dindler
2)

Date: 05/26/2011
Date:



05/26/2011

3)

Date: ---/---/---

4)

Date: ---/---/---

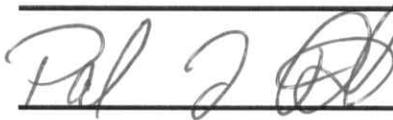
P.E. Signature:

Date: ---/---/---

P.E. #:

Date: ---/---/---

Reviewed by:


_____ conndot

Date: 6/16/11

DATE PREPARED

05-27-2008

DATE CHECKED

PREPARED BY

P.V.

CHECKED BY

State of Connecticut
Department of Transportation
Bureau of Engineering & Highway Operations
DES-003 REV 1-93
(302-06-0225)
COMPUTATION SHEET

ORGANIZATION UNIT NO.

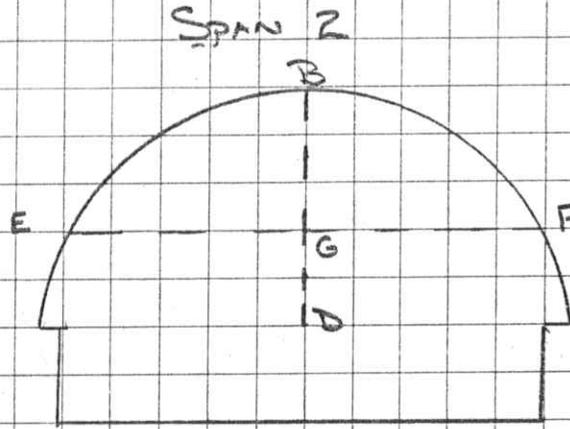
1307

WORK ORDER NO.

SHEET NO.

SUBJECT:

Bridge 5588 Route 74 over Hockanum River, Vernon (N.T.S)



Date	North End		Center		South End	
5-27-08	E-F	122"	E-F	122"	E-F	121"
	B-G	24 1/2"	B-G	24 1/2"	B-G	24 3/4"
5/21/2010	E-F	122"	E-F	122"	E-F	121"
	B-G	24 1/2"	B-G	24 1/2"	B-G	24 3/4"
5/26/11	E-F	122"	E-F	122"	E-F	121"
	B-G	24 1/2"	B-G	24 1/2"	B-G	24 3/4"

DATE PREPARED
05-27-2008
DATE CHECKED

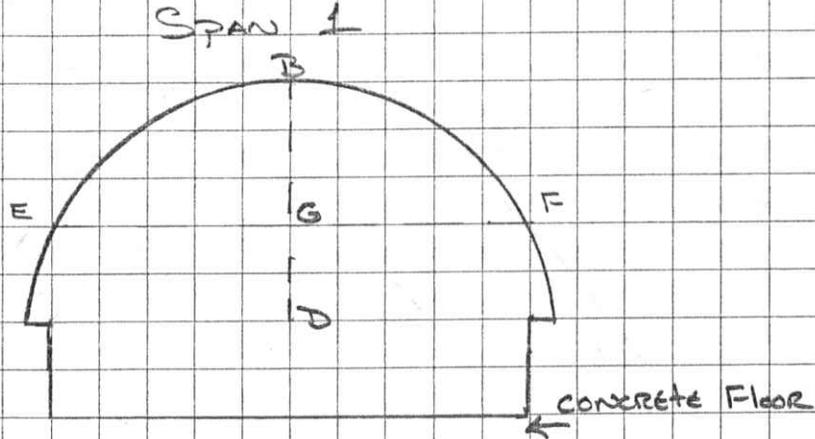
PREPARED BY
P.V.
CHECKED BY

State of Connecticut
Department of Transportation
Bureau of Engineering & Highway Operations
DES-003 REV 1-93
(302-06-0225)
COMPUTATION SHEET

ORGANIZATION UNIT NO. 1307
WORK ORDER NO.
SHEET NO.

SUBJECT:

Bridge 5588 Route 74 over Hockanum River, Vernon (N.T.S)



DATE	North End		Center		South End	
5-27-08	E-F	122"	E-F	122"	E-F	122"
	B-G	25"	B-G	25"	B-G	25"
5/21/2010	E-F	122"	E-F	122"	E-F	122"
	B-G	25"	B-G	25"	B-G	25"
5/26/11	E-F	122"	E-F	122"	E-F	122"
	B-G	25"	B-G	25"	B-G	25"

Bridge No.	05588	Inspected by:	JOHN BRNDIAR
Town:	VERNON	Inspected by:	PETE VENOUTSOS
Feature Carried:	ROUTE 74	Date Inspected:	May 26, 2011
Feature Crossed:	HOCKANUM RIVER	Project No.:	

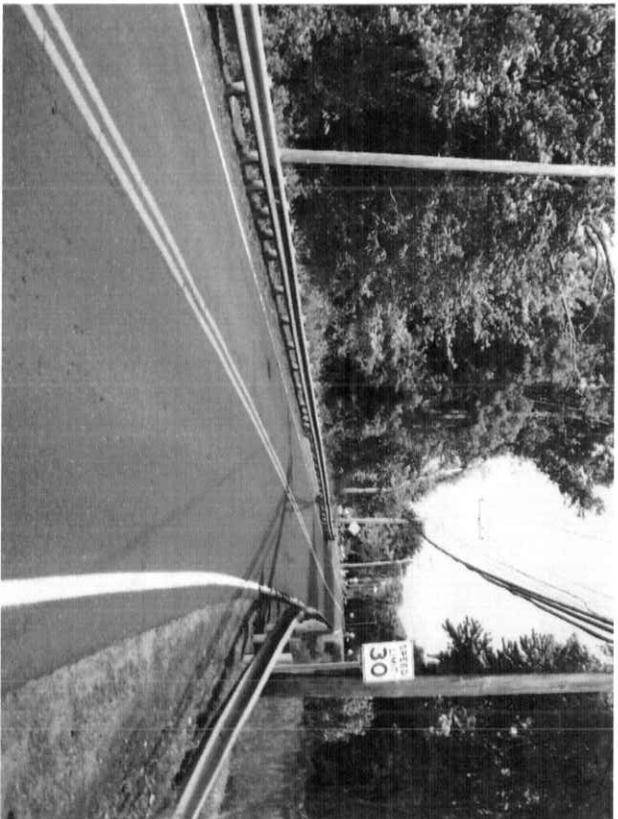


Photo # : LOOKING WEST OVER BRIDGE.

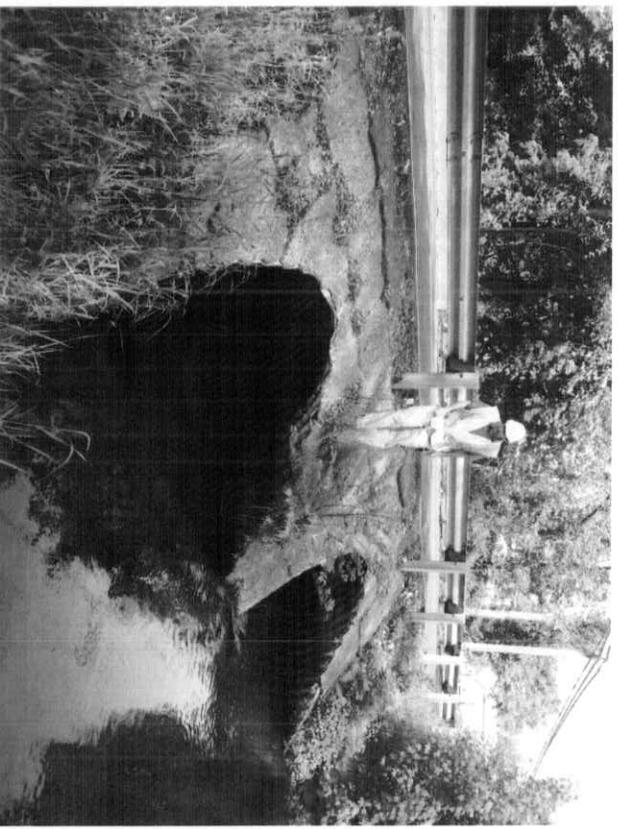


Photo # : NORTH ELEVATION. (UPSTREAM)

Bridge No.	05588	Inspected by:	JOHN BRNDIAR
Town:	VERNON	Inspected by:	PETE VENOUTSOS
Feature Carried:	ROUTE 74	Date Inspected:	May 26, 2011
Feature Crossed:	HOCKANUM RIVER	Project No.:	

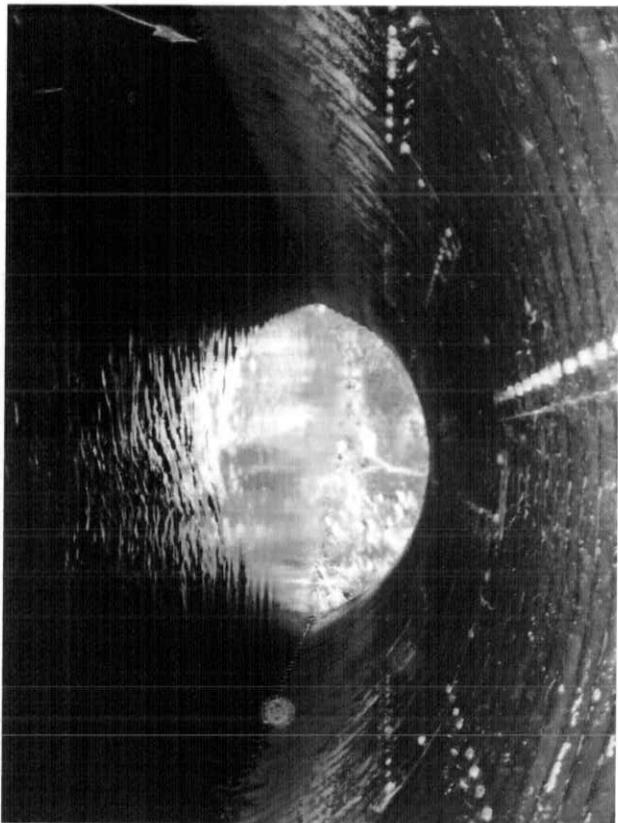


Photo # : LOOKING THRU A TYPICAL SPAN.

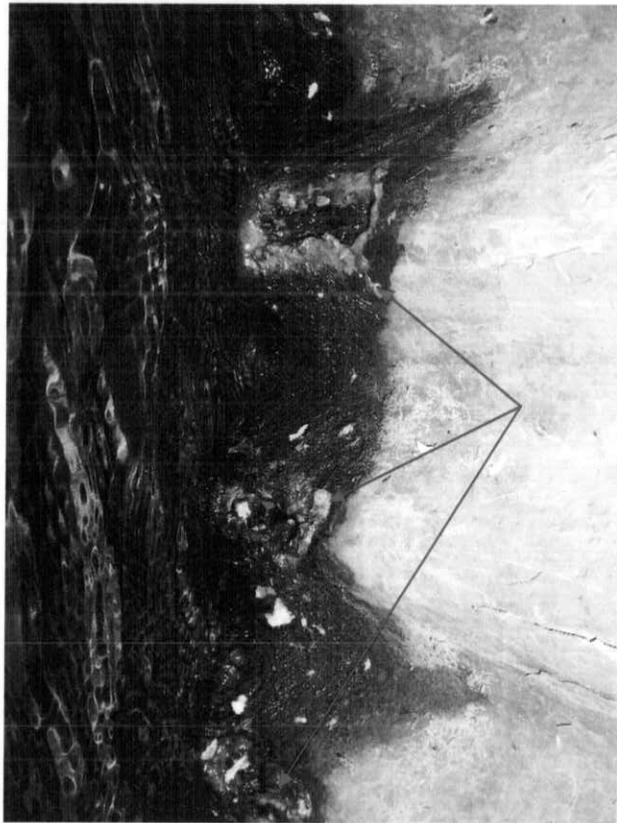


Photo # : PAST NOTED PER HOLES IN PIPE ARCH