STRUCTURE NO. 00700

GUINEA ROAD
over
ROUTE 15
STAMFORD

Routine & Special Inspection
on
7/25/2012

Inspected by TranSystems - 2
for Area 9

Proj. 135-304

TEAM:	Forwarded to TE3 Sandra Dumas		Date	8/23/2012
TE3:	Reviewed by TE3 Sandra Dumas		Date	8/24/2012
	BMM Required	No		
	Town Bridge	No		
	Rating <= 5 (Items 58,59,60 or 62)	Yes		
	Rating Change 2 or More Values			
	Forwarded to Supervisor Sandra Dumas		Date	8/30/2012
	Forwarded to "To Be Copied Drawer" ☐		Date	
	Date BRI-19 Entered	8/30/2012		
SUPERVISOR:	Reviewed by Supervisor Sandra Dumas		Date	8/30/2012
SUPPORT:	Date Copies Made 8/30/2012	BMM No 12-439		
	Scanned By: LA	Date Scanned 9-8-12	PDF Box No	

JH/RB

NBI: Yes electronic copy to J Hagert 8/30/12 DA

Bridge Number **00700**

Inspected By: N. HACKMEISTER & A. WALTER

Sufficiency Rating 45.31

Previous Inspection Date 8/1/2011

BS&E Received ☐ Data Entry By: PMJ

Copies Made ☐ Data Entry Date: 8/30/12

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BRIDGE SAFETY & EVALUATION

STRUCTURE EVALUATION

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

SHEET 1 OF 2

90) Inspection Date	Inspection Team	91) Frequency	Class:
07/25/12	2021	12	02
Indepth Insp	Deck Survey	Access	Flagman
5/18/2008	1/1/1900	0	

RED FLAG ☐

CRITICAL FEATURE INSPECTIONS

	Type	Frequency	Team	Date	
Fracture:					
Uwater:					
Special:	Z Z	12 12	9 21	8/1/2011	07/25/12

IDENTIFICATION

Bridge Name

Town Name STAMFORD Town Code 73070

5) Inventory Route:

A) Record Type 1 D) Route Number 00000

B) Signing Prefix 5 City Street E) Directional Suffix 0 NA

C) Level of Service 0 None of the bel

6) Feature Intersected ROUTE 15

7) Facility Carried: GUINEA ROAD

9) Location 1.4 MI S OF ROUTE 104

11) Milepoint 0.72 Miles

16) Latitude 41deg 6 min .00 sec deg min . sec

17) Longitude 73deg 35 min 30.00 sec deg min . 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 1 Concrete B) Design Type 11 Arch - Deck

44) Structure Type, Approach:

A) Material 0 Other B) Design Type 0 Other

45) Number of Spans, Main Unit 1

46) Number of Approach Spans 0

107) Deck Structure Type N Not Applicable

108) Wearing Surface/Protective System:

A) Type of Wearing Surface N Not Applicable

B) Type of Membrane N Not Applicable

C) Type of Deck Protection N Not Applicable

AGE AND SERVICE

27) Year Built 1937 106) Year Reconstructed

42) Type of Service:

A) On 1 Highway B) Under 1 HIGHWAY

28) Number of Lanes:

A) On 2 B) Under 4

29) Average Daily Traffic 2311 002334 Half ADT?: No N

109) Percent Truck 4% 04

30) Year of ADT 2011 2012

19) Bypass, Detour Length 2miles

GEOMETRIC DATA

48) Length of Max Span 80ft

49) Structure Length 80ft

50) Curb or Sidewalk Widths:

A) Left 1.5ft B) Right 1.5ft

51) Brg Rdwy width,curb-curb 30.0ft

52) Deck Width, Out-Out 36.8ft

32) Approach Roadway Width 23ft

33) Bridge Median 0 No Median

Deck Area 2946 sqft

34) Skew Angle 0deg

35) Structure Flared 0

10)Inv. Rte. Min. Vert Clearance 99ft 99in

47) Log Inv. Rte. Total Horiz Clr.: 30.0ft

47) RLog Inv. Rte. Total Horiz. Clr.: 0ft

53) Min Vert Clearance Over Bridge 99ft 99in

54) Min Vert Under Clearance H Ref 11ft 6in Ref

55) Min Lat Under Clearance on Right H Ref 2.0ft Ref

56) Min Lat Under Clearance on Left 99.9ft 02.6ft

BRIDGE COMMENTS

ASSUME ADT OF 1% INCREASE PER YEAR, NO GUINEA ROAD TRAFFIC DATA ON 2011 TOWN ADT MAPS.

Proj 135-304 - Sub/super rehab - J Hagert 1/16/13 (adv)

STRUCTURE EVALUATION

SHEET 2 OF 2 FORM BRI-19 REV 10/00

SHEET 2 OF 2

Bridge Number	00700	NBIS Length	
Town Name	STAMFORD	Yes	80
Facility Carried	GUINEA ROAD		
Feature Crossed	ROUTE 15		

Inspected By: N. HACKMEISTER & A. WALTER

CLASSIFICATION

112) NBIS Bridge Length	Yes	
104) Highway System	0	Off System
26) Functional Class	19	Urban Local
100) Defense Highway	0	Route is not a STRAHNET Route
101) Parallel Structure	N	No parallel structure exists
102) Direction of Traffic	2	2-way traffic
103) Temporary Structure		
110) Designated National Network	0	Not on national network
20) Toll	3	On Free Road
21) Maintain	1	State Highway Agency
22) Owner	1	State Highway Agency
Report Class	S	STATE
37) Historical Significance	1	On National Register

WATERWAY

DrainageBasinCode			
38) Navigation Control			
39) Navigation Vert Clr.		40) Navigation Horiz Clr.	
116) Vert-Lift Brg Nav Min			
111) Pier Abutment Protection			

PROPOSED IMPROVEMENTS

75A) Type of Work Proposed			
75B) Work Done By			
76) Length of Struct. Improvement	ft		ft
94) Bridge Improvement Cost	$		
95) Roadway Improvement Cost	$		
96) Total Project Cost	$		
97) Year of Improvement Cost Est.			
114) Future ADT		115) Year Future ADT	

List No. 21 Project No. 135-304 Advertised 1/16/13

POSTED SIGNS & UTILITIES

Other Posted Signs 1					
Other Posted Signs 2	8	Other warning signs			
Actual P.L. Single Unit Truck	tons		Actual P.L. 4Axle Truck	tons	
Rec. P.L. Single Unit Truck	tons		Rec. P.L. 4Axle Truck	tons	
Actual P.L. Semi-TrailerTruck	tons		Actual P.L. 3S2 Truck	tons	
Rec. P.L. Semi-TrailerTruck	tons		Rec. P.L. 3S2 Truck	tons	
Rec. P.L. All Vehicles	tons		Actual P.L. All Vehicles	tons	
Posted Vert Clearance On Bridge	ft	in		ft	In
Posted Vert UnderClearance	10 ft	5 in		ft	In
Posted Speed Limit	25 mph				mph
Utility					
Utility	4	Telephone			

LOAD RATING AND POSTING

31) Design Load	4	Evaluation Code	L	
63) Operating Rating Type	1	Year of Evaluation	2001	
64) Operating Rating	262.6	70) Bridge Posting	5	
65) Inventory Rating Type	1	41) Structure Status	A	A
66) Inventory Rating	158.8			

CONDITION

		Rating	By
58) Deck	N	N	ASW
59) Superstructure	3	3	ASW
60) Substructure	6	6	ASW
61) Channel & Chan. Protection	N	N	ASW
62) Culverts	N	N	ASW

APPRAISALS

		Rating	By
67) Structure Evaluation	3	3	GBM
68) Deck Geometry	4	4	ASW
69) Under Clear Vert & Horiz	2	2	ASW
71) Waterway Adequacy	N	N	ASW
72) Approach Rdwy Alignment	6	6	ASW
113) Scour Critical			

Items 58 Thru 72 Checked By: [illegible]

36) Traffic Safety Features:

A) Bridge Railings	0	0
B) Transitions	0	0
C) Approach Guardrail	0	0
D) Approach Guardrail End	0	0

OTHER FEATURES

Fence Required	Yes		Barrel Ladder	No
Fence Present	No	N	Stand Pipes	No
Fence Height	0.0 ft	ft	Cat Walks	No
Fence Type			Movable Inspection System	No
Fence Material			Loose Concrete Checked?	Yes Y
Fence Top Type				

INSPECTION COMMENTS

Proposed Next Indepth Insp Year	2018
Senior	Parviz Mirzaee
Supervisor	Theodore Lapierr

REVIEWED BY: [illegible] PE Date 8/16/12

BRIDGE NUMBER	TOWN NAME	NBIS BRG LGTH	
00700	STAMFORD	True	80
FACILITY CARRIED	FEATURE CROSSED		
GUINEA ROAD	ROUTE 15		

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGE SAFETY EVALUATION

INVENTORY ROUTE UNDER STRUCTURE EVALUATION

FORM BRI-25 REV 10/00

INSPECTED BY: N. HACKMEISTER
A. WALTER

REVIEWED BY: [illegible] PE DATE: 8/17/12

SHEET 1 OF 1 (INSP. REPORT)

IDENTIFICATION

DESCRIPTION:

5) INVENTORY ROUTE:

A) RECORD TYPE	2	
B) ROUTE SIGNING PREFIX	3	State Highway
C) DESIGNATED LEVEL OF SERVICE	1	Mainline
D) ROUTE NO.	00015	
11) MILE POINT (INV.RTE)	8.11	

AGE & SERVICE

+ 28B) NUMBER OF INV.ROUTE LANES	4		
* 29) ADT (INV. RTE)	55900		05720 0
* 109) TRUCK ADT % (INV.RTE)	1		01
* 30) YEAR OF ADT (INV. RTE)	2009		2011
* 41) INV ROUTE OPERATIONAL STATUS	R	Posted for other load-ca	R
19) BYPASS DETOUR LENGTH	3	Miles	

GEOMETRIC DATA

+ 10) INV. RTE. MIN. VERT. CLEARANCE	14 ft 9 in	ft in
+ 47) LOG INV. RTE. TOTAL HORIZ CLR.	29.3 ft	28.3 ft
+ 47) RLOG INV. RTE. TOTAL HORIZ CLR.	29 ft	28.0 ft
+ LOG MIN VERT CLR OVER INV ROUTE	10 ft 8 in	11 ft 06 in *
+ RLOG MIN VERT CLR OVER INV ROUTE	11 ft 2 in	11 ft 10 in *
+ 55) MIN LAT UNDERCLR ON RIGHT	H 2 ft	. ft
+ 56) MIN LAT UNDERCLR ON LEFT	99.9 ft	02.6 ft

CLASSIFICATION

26) INV. RTE. FUNCT CLASSIFICATION	12	Urban Principal Arterial -
100) DEFENSE HIGHWAY DESIGNATION	0	Route is not a STRAHNE
** 102) DIRECTION OF TRAFFIC	2	2-way traffic
104) HIGHWAY SYSTEM OF INV. ROUTE	1	On System
110) DESIGNATED NATIONAL NETWORK	1	On national network

POSTED SIGNS

+ POSTED VERT. CLR UNDER BRIDGE 10ft 5in ft in

COMMENTS:

Route 15 NB - Posted Vertical Clearance - 10 feet 5 inches..
Route 15 SB - Posted Vertical Clearance - ~~11 feet 5 inches..~~
10 FEET 11 INCHES ✓

ITEMS 47 & 56: MEASURED TO FACE OF MEDIAN MBR

~~* MEASURED AT EDGES OF TRAVELWAY (NOT CURBLINE)~~

* FILL OUT ON EVERY INSPECTION 29, 109, 30, 41

\+ VERIFY EVERY INSPECTION 28B, 10, 47, 53, 55, 56 & POSTED VERT CLEARANCE UNDER THE BRIDGE

** MUST BE FILLED OUT OR VERIFIED ON THE FIRST INSPECTION MADE BASED ON THE NEW FHWA GUIDE 102

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 00700 Agency ID: 00700 SR: 45.3 SD/FO: SD

IDENTIFICATION

State 1:	09 Connecticut	Struc Num 8:	00700
Facility Carried 7:	GUINEA ROAD	Location 9:	1.4 MI S OF ROUTE 104
Rte.(On/Under) 5A:	Route On Structure	Rte. Signing Prefix 5B:	5 City Street
Level of Service 5C:	0 None of the below	Route Number 5D:	00000
Directional Suffix 5E:	0 N/A (NBI)	% Responsibility:	0.00
SHD District 2:	03	County Code 3:	Fairfield
Place Code 4:	STAMFORD	Mile Post 11:	0.720 mi
Feature Intersected 6:	ROUTE 15		
Latitude 16:	41° 10' 00"	Longitude 17:	073° 35' 30"
Border Bridge Code 98:	Unknown (P)		
Border Bridge Number 99:	NA		

STRUCTURE TYPE AND MATERIALS

Number of Approach Spans 46:	0	Number of Spans Main Unit 45:	1
1 Concrete		11 Arch-Deck	

Deck Type 107:	N N/A (NBI)
Wearing Surface 108A:	N N/A (no deck (NBI))
Membrane 108B:	N N/A (no deck (NBI))
Deck protection 108C:	N N/A (no deck (NBI))

AGE AND SERVICE

Year Built 27:	1937	Year Reconstructed 106:	-1
Type of Service on 42A:	1 Highway		
Type of Service under 42B:	1 Highway		

Lanes on 28A:	2	Lanes under 28B:	4	Detour Length 19:	1.9 mi
ADT 29:	2,334	Truck ADT 109:	4%	Year of ADT 30:	2012

GEOMETRIC DATA

Length Max Span 48:	80.05 ft	Structure Length 49:	80.05 ft
Curb/Sdwlk Width L 50A:	1.64 ft	Curb/Sidewalk Width R 50B:	1.64 ft
Width Curb to Curb 51:	29.86 ft	Width Out to Out 52:	36.75 ft
Approach Roadway width 32: (w/ shoulders)	22.97 ft	Median 33:	0 No median
Deck Area:	2,946.40 sq. ft		
Skew 34:	0.00°	Structure Flared 35:	0 No flare
Vertical Clearance 10:	328.05 ft	Horizontal Clearance 47:	29.86 ft

Minimum Vertical Clearance Over Bridge 53:	328.05 ft
Minimum Vertical Underclearance Reference 54A:	H Hwy beneath struct
Minimum Vertical Underclearance 54B:	11.50 ft
Minimum Lateral Underclearance Reference R 55A:	H Hwy beneath struct
Minimum Lateral Underclearance R 55:	2.00 ft
Minimum Lateral Underclearance L 56:	2.58 ft

INSPECTION

Frequency 91:	12 months	Inspection Date 90:	7/25/2012	Next Inspection:	7/25/2013
FC Frequency 92A:	NA	FC Inspection Date 93A:	NA	Next FC Inspection:	NA
UW Frequency 92B:	NA	UW Inspection Date 93B:	NA	Next UW Inspection:	NA
SI Frequency 92C:	NA	SI Date 93C:	7/25/2012	Next SI:	NA
Element Frequency:	12 months	Element Insp. Date:	7/25/2012	Next Elem. Insp.:	7/25/2013

CLASSIFICATION

Defense Highway 100:	0 Not a STRAHNET hwy	Parallel Structure 101:	No || bridge exists
Direction of Traffic 102:	2 2-way traffic	Temporary Structure 103:	Unknown (NBI)
Highway System 104:	0 Not on NHS	NBIS Length 112:	Long Enough
Toll Facility 20:	3 On free road	Functional Class 26:	19 Urban Local
Defense Hwy 110:	0 Not a STRAHNET hwy	Historical Significance 37:	1 Br on Natl Reg Hist Pl
Owner 22:	01 State Highway Agency		
Custodian 21:	01 State Highway Agency		

CONDITION

Deck 58:	N N/A (NBI)	Super 59:	3 Serious	Sub 60:	6 Satisfactory
Culvert 62:	N N/A (NBI)	Channel/Channel Protection 61:		N N/A (NBI)	

LOAD RATING AND POSTING

Inventory Rating Method 65:	1 LF Load Factor	Operating Rating Method 63:	1 LF Load Factor
Inventory Rating 66:	HS61.1	Operating Rating 64:	HS61.1
Design Load 31:	4 M 18 (H 20)	Posting 70:	5 At/Above Legal Loads
Posting Status 41:	A Open, no restriction		

APPRAISAL

Bridge Rail 36A:	0 Substandard	Approach Rail 36C:	0 Substandard
Transition 36B:	0 Substandard	Approach Rail Ends 36D:	0 Substandard
Str Evaluation 67:	3 Intolerable - Correct	Deck Geometry 68:	4 Tolerable
Underclearance, Vertical and Horizontal 69:		3 Intolerable - Correct	
Waterway Adequacy 71:	N Not applicable	Approach Alignment 72:	6 Equal Min Criteria
Scour Critical 113:	N Not Over Waterway		

PROPOSED IMPROVEMENTS

Bridge Cost 94:	$1,000	Type of Work 75:	38 Other Structural
Roadway Cost 95:	$1,000	Length of Improvement 76:	0.3 ft
Total Cost 96:	$2,000	Future ADT 114:	1,144
Year of Cost Estimate 97:	2000	Year of Future ADT 115:	2029

NAVIGATION DATA

Navigation Control 38:	NA-no waterway		
Vertical Clearance 39:	0.0 ft	Horizontal Clearance 40:	0.0 ft
Pier Protection 111:	Unknown (NBI)	Lift Bridge Vertical Clearance 116:	0.0 ft

Structure Inventory and Appraisal Sheet (English Units)

ELEMENT CONDITION STATE DATA

Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4	% in 5	Qty. St. 5
0	144/3	R/Conc Arch	(LF)	37	5%	2	14%	5	68%	25	14%	5	0%	0
0	215/3	R/Conc Abutment	(LF)	74	100%	74	0%	0	0%	0	0%	0	0%	0
0	333/3	Other Bridge Railing	(LF)	246	100%	246	0%	0	0%	0	0%	0	0%	0

BRIDGE SAFETY INSPECTION: STATE PROJECT NO. 170-3013

ConnDOT BRIDGE NO. 00700
Guinea Road over Route 15
Stamford
07/25/12

SUMMARY

Bridge No. 00700 carries Guinea Road over Route 15 (Merritt Parkway) in Stamford, Connecticut. This 80-foot long reinforced concrete arch has a 30-foot curb-to-cub measurement and was constructed in 1937. The bridge was found to be in serious condition this Routine inspection (Overall Rating = 3). The notable deficiencies found on the bridge and the recommendations for repairs are as follows:

Deck (Rating = "N" - Approach pavement carried on fill over bridge)

1. The bituminous concrete pavement is cracked throughout with many cracks unsealed. Consideration should be given to replacing the wearing surface over the bridge (45 TONS).
2. There are random spalls along the concrete curbs and missing mortar in the stone masonry parapets. Patch the spalls and replace the missing mortar (< 1 CY).

Superstructure (Rating = 3 – Serious)

1. There are extensive hollow areas located throughout the underside, particularly along the arch rings, where they extend up to full length. Several sections of these hollow areas throughout the intrados are loose and pose potential threats to traffic. Ron Jantzen (ConnDOT) was notified of these areas during a 7/25/2012 field visit, and a new Priority "B" BMM submitted by email on 7/26/2012. Remove the loose concrete as specified in the included BMM.
2. The intrados of the reinforced concrete arch has spalls up to 11'-6" long x 3'-6" wide x 8" deep with exposed rebar. Most locations of exposed rebar have approximately 10-25% section loss. Isolated bars have up to 75% loss. This deficiency has been outlined in a new BMM. Clean and coat the exposed rebar (400 LF) and patch the spalls (3 CY).

Substructure (Rating = 6 – Satisfactory)

1. Abutment stems are buried and not visible. Stone masonry wingwalls exhibit minor cracking with efflorescence along joints and heavy vegetation. No significant repairs recommended.

Approach Condition (Rating = 6 – Satisfactory)

1. The approach pavements have extensive cracks and moderate raveling. Consideration should be given to replacing the approach pavements (55 TONS).
2. There are no approach guiderails at the bridge. Install approach guiderails according to current ConnDOT & FHWA standards (200 LF).

RECEIVED
AUG 23 2012
DOT

STATE OF CONNECTICUT
J. BRIAN McGOVERN
No. 15522
LICENSED
PROFESSIONAL ENGINEER

Prepared By:
TranSystems Corporation
76 Westbury Park Road
Watertown, CT 06795

TranSystems

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

INSPECTION REPORT TRANSMITTAL FORM
Form BRI-27, Rev. 9/97

Structure No. 00700 Town Stamford

Inspectors Nathan Hackmeister & Andrew Walter (TranSystems) Date 07/25/11

TABLE OF CONTENTS

Loose Forms (not bound in report)	No. of Sheets Enclosed
Maintenance Memo	1
Flagging Memos	7
BRI-11, Seismic Screening Data Sheet	
BRI-12, Fracture Critical Inspection Data Sheet	
BRI-19, HWY Bridge SI&A Form	2
BRI-25, Under Entry SI&A Form	1
BRI-39, RR Bridge SI&A Form	
BRI-49, Sign Structure SI&A Form	
Pontis Element Data Collection Form	2
Plan Sheets . . . Check here if already on file: ☐	

Bound Report Pages	
Title Cover Sheet	
Table of Contents	1
Bridge Summary	1
BRI-18, Bridge Inspection Form	7
BRI-48, Sign Structure Inspection Form	
Field Notes (Include Forms BRI-10, BRI-13, BRI-14,	13
BRI-15, BRI-16, BRI-17, BRI-29, BRI-30	
Calculations :	
Load Rating Evaluation	
Quantities & Cost Estimate	
Photo Sheets	11

RECEIVED
AUG 23 2012
CONN. DOT

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

Bridge #: 00700 **Inspection Date: 07/25/2012**

Inspection Type:	Routine	**Previous Inspection Date:**	8/1/2011	**Snooper Required:**	No
Inspection Performed By:	TranSystems	**Feature Carried:**	GUINEA ROAD	**Snooper Used:**	No
Town:	STAMFORD	**Feature Intersected:**	ROUTE 15	**Year Built:**	1937
Location:	1.4 MI S OF ROUTE 104	**Main Design:**	Arch - Deck	**Year Rebuilt:**	-
Main Material:	Concrete				

Visits **Inspectors:**

Visit Date:	Temp:	Start Time:	End Time:	Inspector:	Task:
7/25/2012	80	8:30:00 AM	3:15:00 PM	A. Walter	Inspector
7/26/2012	80	8:30:00 AM	3:15:00 PM	N. Hackmeister	Lead Inspector

DECK: - **Overall Rating:** P

	Rating	
OVERLAY:	5	The bituminous concrete pavement exhibits random longitudinal and transverse cracks open up to 1/4"W throughout; approximately 50% are sealed. There are areas of uneven/breaking up bituminous patches up to 25'L x 5'W, with depressions up to 1"D (south end of arch) and potholes up to 18"L x 6"W x 2"D. At the southeast corner there is an area of 4'L x 4'W x 1"D settlement. There is heavy debris buildup in the shoulders at all (4) corners. See photos 8 & 9 and field sheet 4.
DECK-STR. CONDITION:	N	Bituminous concrete approach pavement carried over bridge on fill.
CURBS:	6	The concrete curbs/parapet rail bases along both sides of the bridge exhibit random spalls up to 1'L x 5"W x 3"D, vertical hairline cracks up to full height, and moderate scale at random locations up to 2'L x 3"W x 1/2"D. Between the curbs and the pavement there is up to 1/4"W separation with vegetation growth protruding from the gap. Curb reveal ranges from 5" to 7" along both sides of the bridge. See photo 10 and field sheet 4.
MEDIAN:	N	-
SIDEWALKS:	N	-
PARAPET:	6	The stone masonry parapets along both sides of the bridge exhibit hairline cracks in the mortar joints with up to 25% loss of mortar between stones. There are several cracked stones.

		See photo 10 and field sheet 4.
RAILING:	N	-
PAINT:	N	-
FENCE:	N	-
DRAINS:	N	-
LIGHTING STANDARD:	N	-
UTILITIES TYPE/SIZE:	N	-
CONSTR JOINTS:	N	-
EXPANSION JOINTS:	N	Arch ends are paved over.

59. SUPERSTRUCTURE: -

Overall Rating: 3

	Rating	
BEARING DEVICES:	N	-
STRINGERS:	N	-
GIRDERS:	3	The intrados of the reinforced concrete arch exhibits spalls up to 11'-6"L x 3'-6"W x 8"D with exposed rebar. Most locations of exposed rebar have approximately 10-25% section loss however isolated bars have up to 3/8" remaining (approximately a 75% loss). The intrados also has transverse and longitudinal cracks up to approximately 50'L x 0.050" open. Some cracks have efflorescence. There are hollow areas up to 8'W x full span length which have widespread hairline mapcracks with efflorescence. Several sections of these hollow areas throughout the intrados are loose and pose potential threats to traffic. Loose concrete was removed during the inspection, but additional loose areas remain. Ron Jantzen (ConnDOT) was notified of these areas during a 7/25/2012 field visit, and a new Priority "B" BMM submitted by email on 7/26/2012. 12-439 Additionally, the underside of the arch exhibits light scaling throughout, evidence of leakage, and scrape marks over the right lanes of both travel directions. Total underside deterioration is approximately 64%. See photos 11-14 and field sheet 5-7 The spandrel walls exhibit areas of heavy efflorescence and stalactites between the ring and the arch intrados throughout. On the west fascia there is a partially loose stone over the right lane of RT 15 SB. The stone is marked with black paint. There are minor cracks in the mortared joints and voids up to 2" diameter x 3"D. See photos 14 & 15 and field sheets 5 & 8.
FLOOR BEAMS:	N	-
TRUSSES-GENERAL:	N	-
TRUSSES-PORTALS:	N	-
TRUSSES-BRACING:	N	-
PAINT:	N	-
RUST:	N	-
MACHINERY MOV SPAN:	N	-
RIVETS & BOLTS:	N	-
WELDS - CRACKS:	N	-
TIMBER DECAY:	N	-
CONCRETE CRACKING:	3	See item "Girders" above.
COLLISION DAMAGE:	6	There are numerous minor scrapes on the intrados of the arch. See photo 16.

permanter secure

MEMBER ALIGNMENT:	8	-
DEFLECT. UNDER LOAD:	N	(N)-Normal (E)-Excessive
VIBRATION UNDER LOAD:	N	(N)-Normal (E)-Excessive
STAND PIPES:	N	-
BARREL LADDERS:	N	-

ARE BARREL LADDERS OSHA COMPLIANT? N/A

---

60. SUBSTRUCTURE: - **Overall Rating:** 6

	Rating	
ABUTMENTS-STEM:	N	The concrete stems are buried and not visible. See photo 17.
ABUTMENTS-BACKWALL:	N	-
ABUTMENTS-FOOTINGS:	N	The footings are not visible.
ABUTMENTS-SETTLEMENT:	8	-
ABUTMENTS-WINGWALLS:	6	The stone masonry wingwalls exhibit areas of minor cracking with random efflorescence along the mortar joints. There are areas of heavy vegetation growth covering up to 100% of the wingwall surfaces (heaviest at the southeast). The southeast wingwall has a full height vertical crack open up to 1/8" at the mortar joint of the spandrel wall. See photos 18 & 19 and field sheet 8.
PIERS/BENTS-CAPS:	N	-
PIERS/BENTS-PILE BENT:	N	-
PIERS/BENTS-COLUMNS:	N	-
PIERS/BENTS-FOOTING:	N	-
PIERS/BENTS-SETTLMT:	N	-
EROSION-SCOUR:	8	Erosion rated : "8" - None detected. Scour Rated: "N" - N/A
CONCRETE CRACK-SPALL:	6	See above item "Abutments-Wingwalls".
STEEL CORROSION:	N	-
PAINT:	N	-
TIMBER DECAY:	N	-
COLLISION DAMAGE:	8	-

DEBRIS:	8	-

61. CHANNEL & CHANNEL PROTECTION:	-	**Overall Rating:**	N

62. CULVERTS & RETAINING WALL:	-	**Overall Rating:**	N

65. APPROACH CONDITION	-	**Overall Rating:**	6

	Rating	
APPROACH SLAB:	N	-
RELIEF JOINTS:	N	-
APPROACH GUIDE RAIL:	N	There are no approach guiderails present at the bridge. Large stones have been placed at each corner. ✓ See photo 20 and field sheet 4.
APPROACH PAVEMENT:	6	The bituminous concrete approach pavements exhibit longitudinal and transverse cracks open up to 1/2"W with moderate raveling. The south approach pavement has a FW x 15'L mapcrack area with cracks open to 1/4"W. See photos 21 & 22 and field sheet 4.
APPROACH EMBANKMENT:	8	-

TRAFFIC SAFETY FEATURES

	Rating	
BRIDGE RAILINGS:	Last Inspection: 0 Current: 0	Stone masonry parapets.
TRANSITIONS:	Last Inspection: 0 Current: 0	No approach guiderails.
APPROACH GUARDRAILS:	Last Inspection: 0	No approach guiderails.

	Current: 0	
APPR. GUARDRAIL ENDS:	Last Inspection: 0 Current: 0	No approach guiderails.

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):	-	-
LEGIBILITY:	-	-
VISIBILITY/LOCATION:	-	-

67. MISCELLANEOUS

	Rating	
MIN. VERT. UNDERCLEARANCE:	Last Inspection: 11' 6" Current: 10' 8"	The minimum vertical over Route 15 northbound is 10'-8" and 11'-2" for southbound. See field sheet 3.
POSTED CLR. UNDER BRIDGE:	Last Inspection: 10' 5" Current: 10' 5"	Route 15 northbound is posted at 10'-5" approximately 100 yards before the bridge. Route 15 southbound is posted at 10'-11" approximately 100 yards before the bridge.
POSTED CLR. ON BRIDGE:	Last Inspection: -' -" Current: -' -"	-
ADVANCED WARNING (YES/NO):	No	-
SPEED LIMIT (IF ANY):	Last Inspection: -	-

	Current: -	
CHARACTER OF TRAFIC:		Light volume and mostly passengers cars on Guinea Road.
ADDITIONAL NOTES:		The bridge ID's are clear and legible. The bridge is logged from south to north.
ADDITIONAL COMMENTS:		Previous BMM 11-458 has been completed, however similar conditions have reoccurred. Ron Jantzen (ConnDOT) was notified of the additional loose hollow areas areas during a 7/25/2012 field visit, and a new Priority "B" BMM submitted by email on 7/26/2012. 12-439 There is an additional new BMM associated with this report.

Inspectors' Signatures:	1)	Date: 8/17/2012
	2) NPH for ASW	Date: 8/17/2012
	3)	Date: ----/----/-----
	4)	Date: ----/----/-----
P.E. Signature:		Date: 8/17/12
P.E. #:	15522	Date: ----/----/-----
Reviewed by:	Sandra A Dumas conndot	Date: 8/24/12

RECEIVED AUG 23 2012

TranSystems	JOB NO. P712100021	BRIDGE NO. 00700
	DATE: SEE BELOW	SHEET 1
TIME AT SITE	CREW: SEE BELOW	

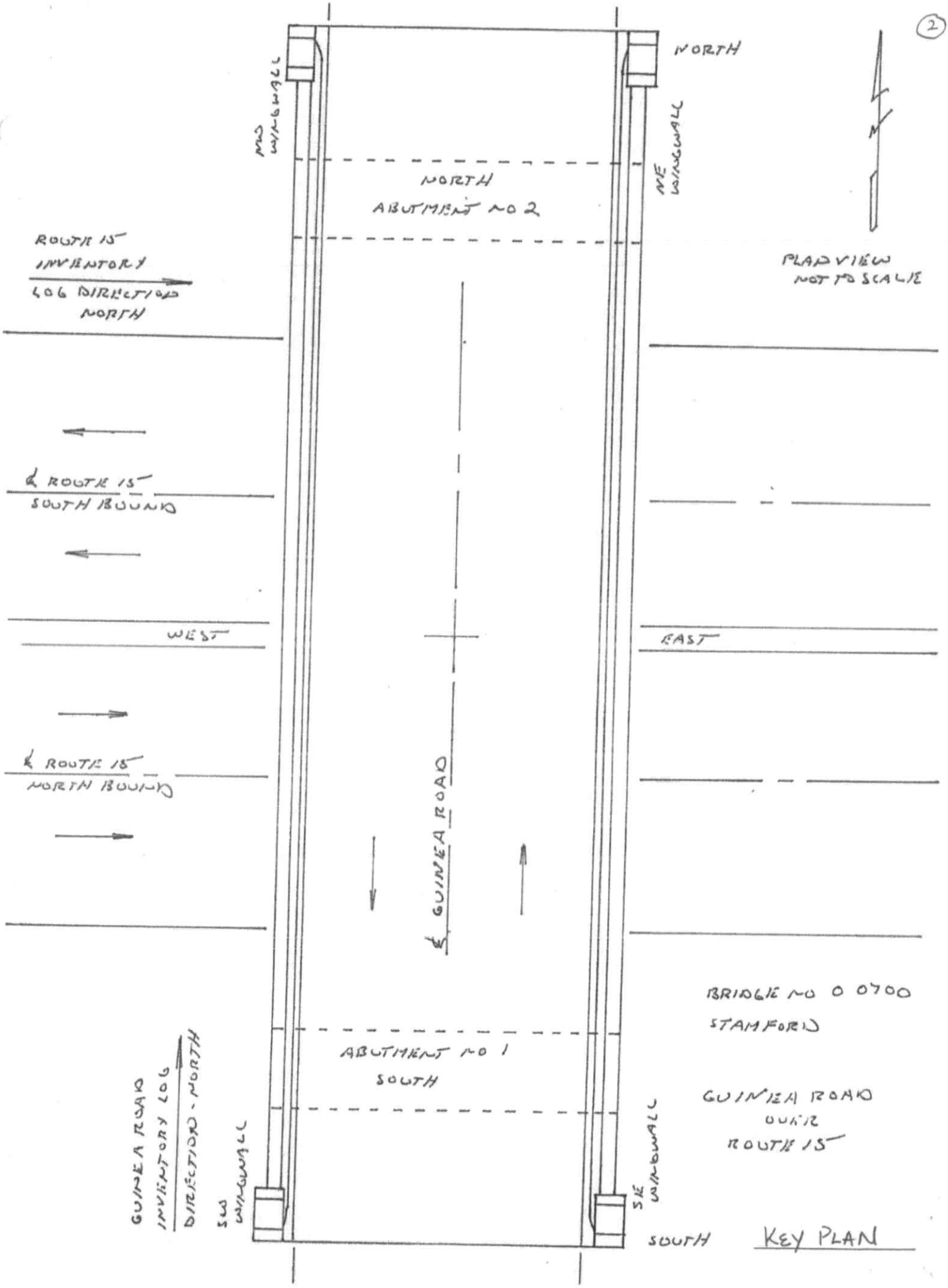
DATE: 7/25/2012 CLEAR 80°F	CREW: NPH, ASW	
	EQUIPMENT USED: 30' LIFT TRUCK, CUBE TRUCK, CRASH TRUCK (MCLEAN, 830A-300P)	
TIME: 830A-315P	POLICE: EDMUND VAYAN (STATE #1182) (NAME/TIME) 830A-315P	FLAGMAN: (NAME/TIME) —
WORK DONE: SUPERSTRUCTURE 50% COMPLETE (RT 15 NB & SB RIGHT LANES) & SUBSTRUCTURE COMPLETE		

DATE: 7/26/2012 CLDS/TSPRMS 80°F	CREW: NPH, ASW	
	EQUIPMENT USED: 30' LIFT TRUCK, CUBE TRUCK, CRASH TRUCK (MCLEAN, 830A-200P)	
TIME: 830A-315P	POLICE: RYAN HENNESSEY (STATE, #84) (NAME/TIME) 830A-215P	FLAGMAN: (NAME/TIME) —
WORK DONE: SUPERSTRUCTURE 50% COMPLETE (RT 15 NB & SB LEFT LANES) & TOD COMPLETE - INSPECTION COMPLETE		

DATE:	CREW:	
	EQUIPMENT USED:	
TIME:	POLICE: (NAME/TIME)	FLAGMAN: (NAME/TIME)
WORK DONE:		

DATE:	CREW:	
	EQUIPMENT USED:	
TIME:	POLICE: (NAME/TIME)	FLAGMAN: (NAME/TIME)
WORK DONE:		

DATE:	CREW:	
	EQUIPMENT USED:	
TIME:	POLICE: (NAME/TIME)	FLAGMAN: (NAME/TIME)
WORK DONE:		


NORTH
NW WINGWALL
NE WINGWALL
NORTH ABUTMENT NO 2
PLAN VIEW NOT TO SCALE
ROUTE 15 INVENTORY LOG DIRECTION NORTH
℄ ROUTE 15 SOUTH BOUND
WEST
EAST
℄ ROUTE 15 NORTH BOUND
℄ GUINEA ROAD
BRIDGE NO 0 0700 STAMFORD
ABUTMENT NO 1 SOUTH
GUINEA ROAD OVER ROUTE 15
GUINEA ROAD INVENTORY LOG DIRECTION - NORTH
SW WINGWALL
SE WINGWALL
SOUTH
KEY PLAN

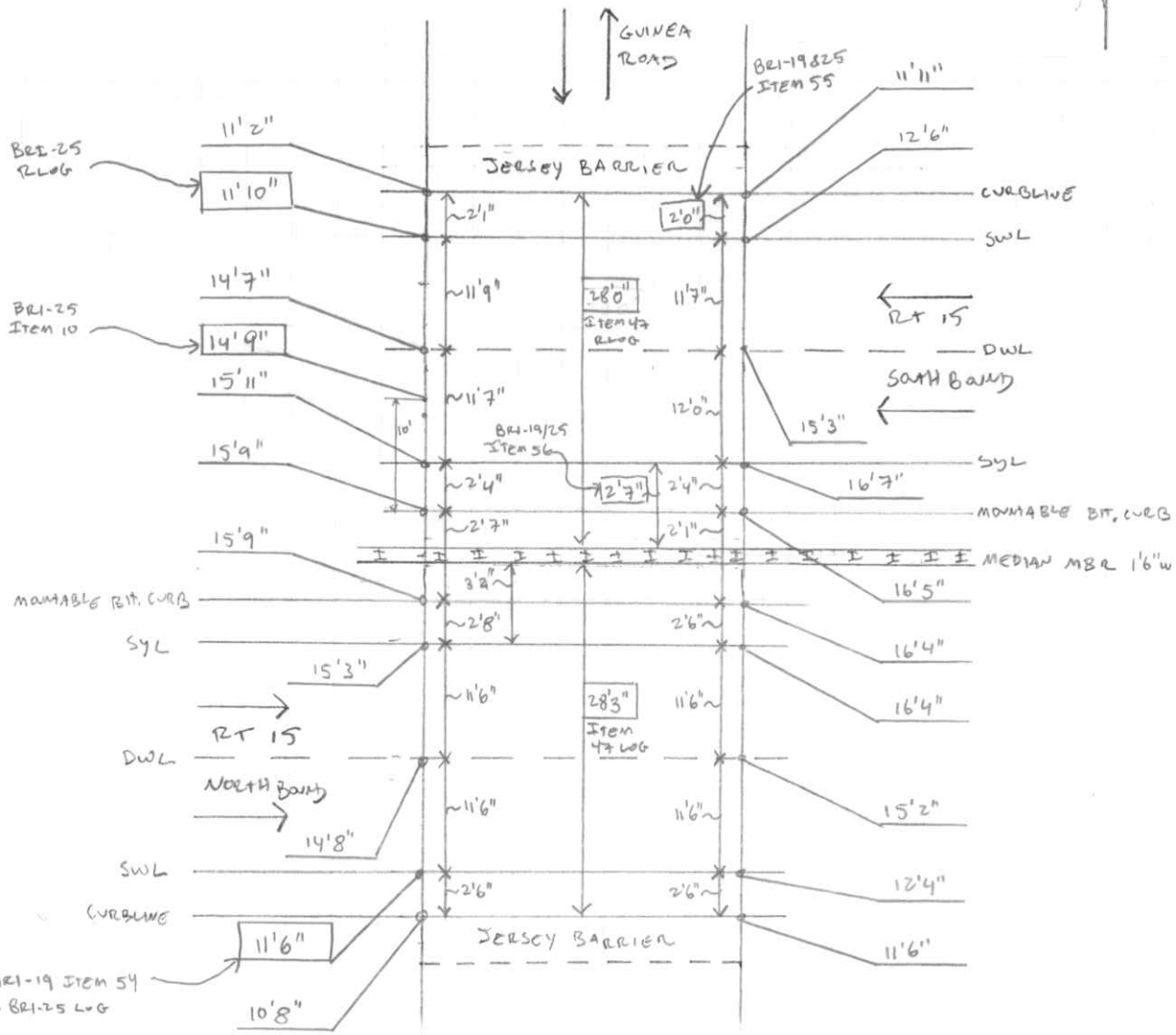
Field Notes

TranSystems

PROJECT NO P7 12 10 0021
DATE 7/25/2012
CREW NPH / ASW

BRIDGE NO 00700
SHEET 3

CLEARANCE DIAGRAM
NTS



LEGEND

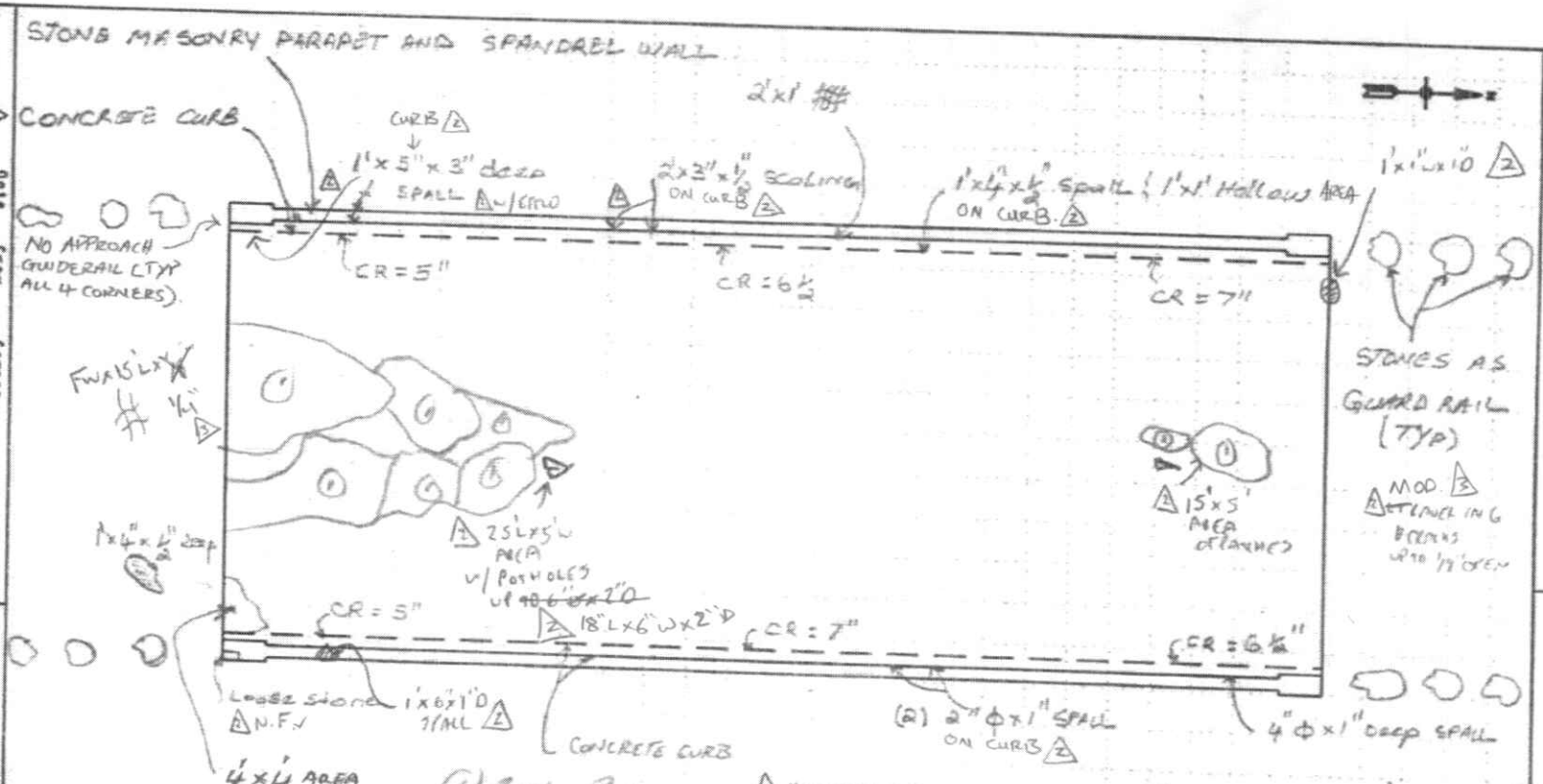
SWL: SOLID WHITE LINE
DWL: DASHED WHITE LINE
SYL: SOLID YELLOW LINE

NOTES

- MEASUREMENTS DOUBLE CHECKED
- ROUTE 15 NB w/ ADVANCE NOTICE CLEARANCE SIGN 10'05"
- ROUTE 15 SB " " " " " 10'11"

REVISION 1	DATE	CREW	REVISION 2	DATE	CREW
REVISION 3	DATE	CREW	REVISION 4	DATE	CREW

Calculations for 1/4 US Grid



GENERAL NOTES

(A) THE BITUMINOUS CONCRETE OVERLAY SHOWS MULTIPLE TRANSVERSE AND LONGITUDINAL CRACKS MOST ARE SEALED THROUGHOUT THE TOP OF DECK. OTHERS ARE OPEN UP TO 1/4" BREAKING UP OF BIT PATCHES

(B) THE CURB EXHIBIT A MINOR VERTICAL HAIRLINE CRACKS AND MOD SCALE @ RANDOM LOCS.

(C) THE PARAPETS EXHIBIT HAIRLINE CRACKS IN THE MORTAR JOINT AND STONES AT RANDOM LOCATIONS WITH MOD VEGETATION GROWTH ON THE TOP

(D) THE APPROACH PAVEMENT OVERLAY EXHIBIT LONGITUDINAL & TRANSVERSE CRACKS OPEN UP TO 1/8" WIDE AT RANDOM LOCATION AND MODERATE RAVELLING

Revision	Date	Crew	Company
1	6-9-10	Scz	
2	4-1-11	RDM, KH,	TSC
3	7/26/12	ASW/NPH	(FSC)
4			

AI Engineers, Inc.

FIELD NOTES

DESCRIPTION: TOP OF DECK

JOB NO. 170-2729

BRIDGE NO: 00700

DATE: 05/14/08

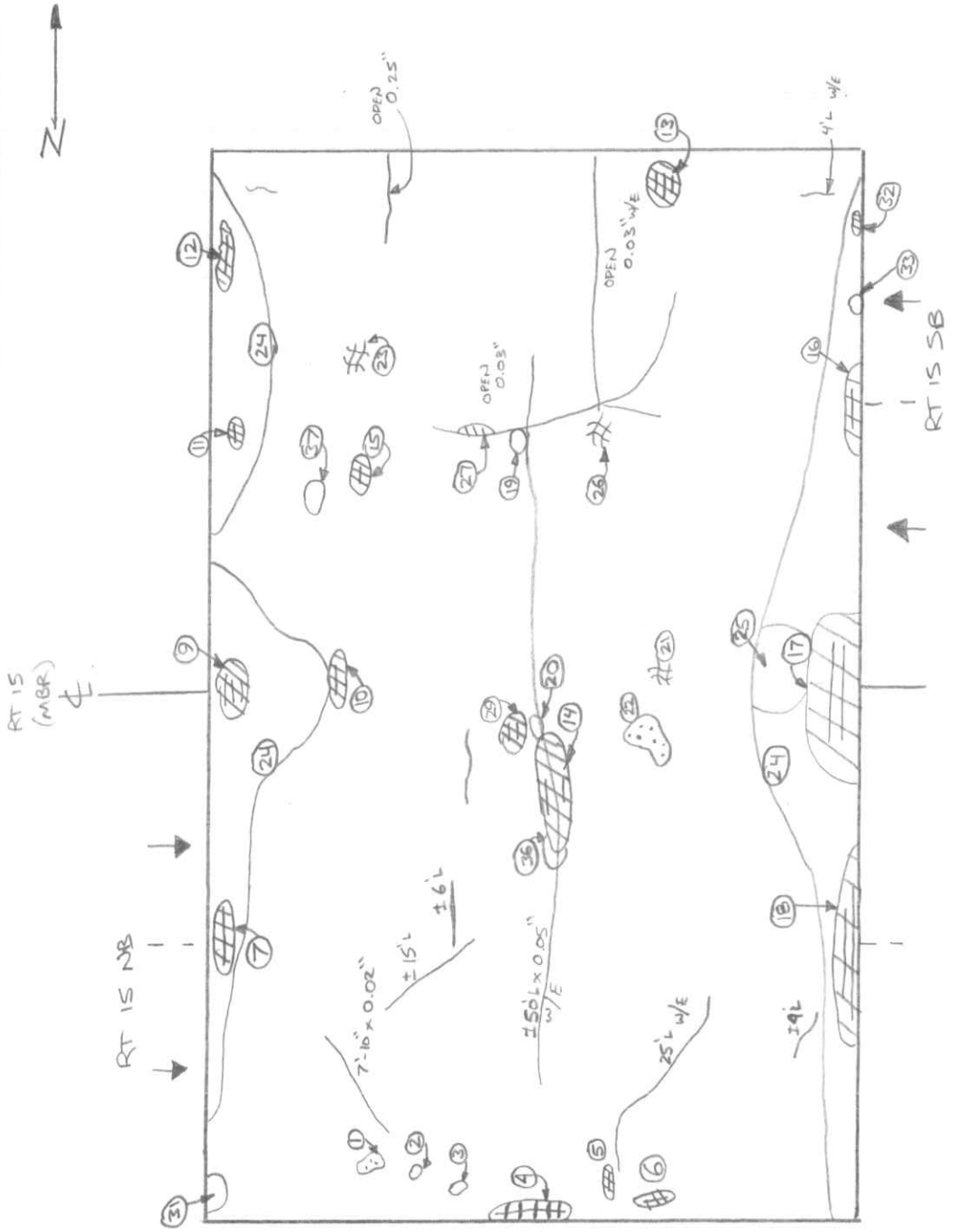
CREW: K.S. BNS, ZRT

SHEET 4

TranSystems

Field Notes

PROJECT NO. P7121000021 BRIDGE NO. 00700
DATE 7/25/2012 SHEET 5
CREW ASW/NPH



GENERAL NOTES:

ARCH INTRADOS

1) NUMBERED DEFICIENCIES ON NEXT SHT (#)
2). MOST EXPOSED REBAR EXHIBITS ± 10-25% S.L. ISOLATED REBAR W/ UP TO 3/8" REM.
3) ± 1380 SF OF HLMC
4) NUMEROUS SCRAPES MARKS OVER BOTH RIGHT LANES.

LEGEND
- HOLLOW AREA
- SHALLOW REBAR
- SPALL
- SPALL W/ EXP. REBAR
- MAPCRACKS
- HAIRLINE CRACK
- HONEYCOMB
- SCALE
- NUMBERED DEFICIENCY ON NEXT SHT (#)

REVISION 1	DATE	CREW	REVISION 2	DATE	CREW
REVISION 3	DATE	CREW	REVISION 4	DATE	CREW

Calculations for 1/4 US Grid

TranSystems

Field Notes

PROJECT NO. P712100021 BRIDGE NO. 007000
DATE SHEET 6
CREW ASW/NPM

ARCH INTRADOS DEFICIENCIES (SEE SHT 5)

1. 3'x3' MOD. SCALE.
2. 1'Ø HA
3. 1'Ø x 2" Dp w/ RUSTED REBAR
4. 6'x 30"x 3"D w/ EXP REBAR, 1 BAR w/ 3/8" (REM.)
5. 1'x2'x 2½" D w/ EXP. REBAR
6. 24"x30"x2'D w/ EXP. REBAR
7. 12'L x 42"W x 4"D w/ EXP. REB w/ ±25% S.L.
9. 7'-3" x 3'5" x 3"D.
10. 1'Ø x 2"D w/ EXP. REB
11. 40" x 28" x 3"D w/ EXP. REB
12. 66" x 36" x 3½"D w/ EXP. REB.
13. 53" x 32" x 3"D w/ EXP REB w/ 10% ± S.L.
14. 8'L x 27"x 3"D w/ EXP REB
15. 8"Ø x 3"D W/E & 20"Ø HA (AROUND SPALL)
16. 64"x 22" x 3"D w/ EXP. REB.
17. 11'-6" x 3'-6" x UP TO 8"D w/ EXP. REB
18. 13'L x 32"W x 5"D w/ EXP REB REB w/ ±20% S.L.
19. 1'Ø HA (LOOSE)
20. 20"x 20" HA (LOOSE)
21. 6'W x 16'L HLMPCR w/ EFFLO
22. 9 SF MOD SCALE
24. SECTIONS OF HOLLOW CONCRETE w/ WIDESPREAD MAPCRACKING & LONGITUDINAL CRACKS w/ EFFLORESCENCE. AREAS ARE TYPICALLY FULL LENGTH OF SPAN & UP TO 8' WIDE. TOTAL ± 700 SF. (AREAS OF LOOSE CONCRETE MARKED SEPARATELY)
25. 5'W x 8'L HA w/ CRACKS & EFFLO (CONTINUE TO MONITOR)
26. 3'x5' HLMC w/ EFFLO
27. 2'L x 28"W x 1"DP.
29. 28"L x 22"W x 4" Dp w/ EXP. REBAR
31. 3'L x 14'W HA
32. 1'L x 5"W x 1"Dp SPALL
33. (2) 18"Ø HA's OVER RIGHT LANE (LOOSE)
34. 18"x 10" HA
35. 16"x 12" HA
36. (2) 12"x 6" HA (LOOSE)
37. 10"Ø HA

REVISION 1	DATE	CREW	REVISION 2	DATE	CREW
REVISION 3	DATE	CREW	REVISION 4	DATE	CREW

Calculations for 1/4 US Grid

7

Bridge Number: 00700 Date: 7/25/2012 Prepared by: ASW Checked by: NPH

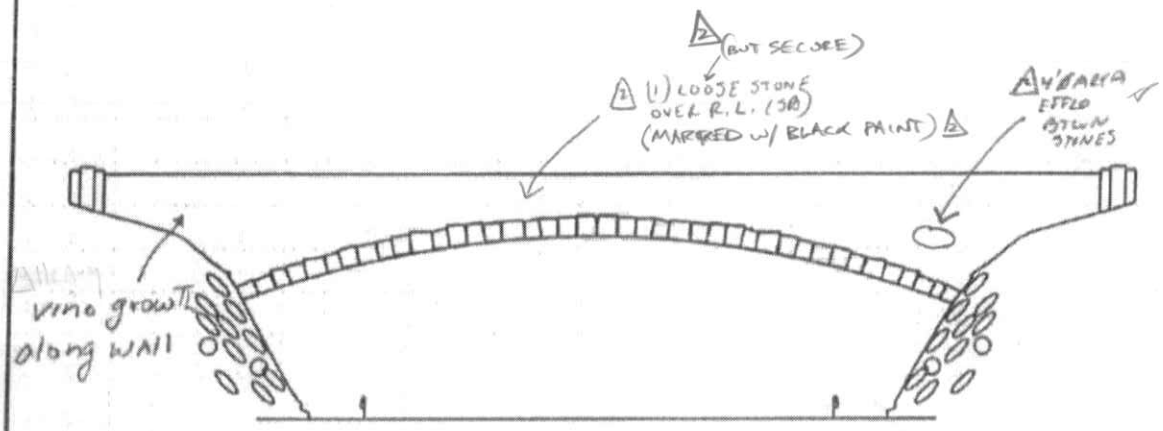
CONCRETE DETERIORATION WORKSHEET

Form BRI-10, Rev. 9/01

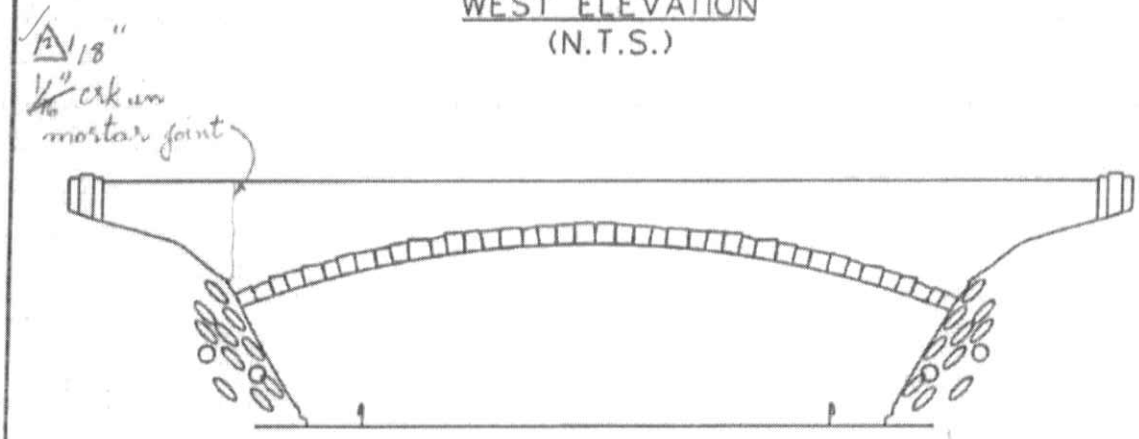
	Deterioration by Span-Square Feet										
	Span Number										
Deterioration Type	1	2	3	4	5	6	7	8	9	10	Total
Spalled and Delaminated areas	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top: 0
	Bot: 775	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot: 775
Scale (moderate to severe only)	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top: 0
	Bot: 18	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot: 18
Cracks with Efflo. (use 6in. wide x length)	Bot: 90	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot: 90
Cracks without Efflo (use 3in wide x length)	Bot: 16	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot: 16
Map Cracking with Efflo. (use full area)	Bot: 925	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot: 925
Map Cracking with/out Efflo. (use 50% of area)	Bot: 58	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot: 58
Honey combed	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot: 0
Total Deterioration	1882	0	0	0	0	0	0	0	0	0	1882
Total Span Area (sq. Ft)	2946										2946.4
% spalled and delminated Top	0.0%										0.0%
% Deterioration on bottom	63.9%										63.9%

Notes: 1. Superficial mapcracking not included in deterioration sheet according to chapter 10 in inspection manual.

AI Engineers, Inc.	JOB NO. 170-2729	BRIDGE NO: 00700
	DATE: 05/14/08	SHEET ~~1 OF 1~~
FIELD NOTES	CREW: KS, BNS, ZRI △2 ~~7~~ (8) △3	
DESCRIPTION: ARCH		



WEST ELEVATION
(N.T.S.)



EAST ELEVATION
(N.T.S.)

△3 EVIDENCE OF

GENERAL NOTES

△1 TWO ≈ 2'L PORTIONS OF THE SPANDREL WALL WAS LOOSE & REMOVED @ T.O.I, OVER BOTH THE NB & SB LANES. (6"W)

- 50% of The EAST spandrell wall is Covered w/ Hvy vine growth @ SOUTH END △3
- Masonry spandrel wall and arch ring stones show ~~areas of~~ active leakage w/ hvy efflo + stalactites
- Minor crks w/ efflo @ mortar jts of wingwalls.

△4 Spandrel walls w/ minor mortar voids up to 2"Ø & 3" Deep

LEGEND:

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA w/ EXPOSED REBAR
- MAPCRACKS
- HAIRLINE CRACKS
- E EFFLORESCENCE
- HONEYCOMB AREA
- SCALE AREA

Revision	Date	Crew	Company	Revision	Date	Crew	Company
△1	6-9-10	See △1		△3	7/25/12	ASW/NPH	(TSC)
△2	8/31/11	ROM MVA	(TSC)	△4			

(9)

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MEMORANDUM

subject: **BMM No. 11-458**
Bridge No. 00700
Guinea Road over Route 15
Stamford

date: 09/01/11

to: Mr. Robert P. Mongillo
Transportation Maintenance Administrator
Bureau of Highway Operations

from: Robert P. Zaffetti
Manager of Bridge Safety and Evaluation
Bureau of Engineering and Construction

This memorandum is a follow-up to a telephone conversation on (Month Day, Year) between, (Maintenance Staff) of your staff and (Bridge Safety Staff), of this office, concerning the following deficiency and recommendation for the subject structure:

1. There are three hollow areas over northbound travelway. 5 feet long by 2 feet wide over both lanes and 7 feet long by up to 1 foot wide over left lane and median on east end of underside. 2 feet long by 1.5 feet wide over left lane on west end of underside. The areas are marked with red keel. ← REMOVED △1

Please direct persons under your jurisdiction to:

1. Remove hollow areas. (<1/4 CY). ← DONE △1 HOWEVER, NEW LOOSE HOLLOW AREAS ARE PRESENT. SEE NEW PRIORITY B BMM.

All repairs shall be performed utilizing appropriate approved materials and tried and proven methods unless otherwise specified.

This item should be considered **Priority B**. Additional items may be forwarded with the final inspection report.

If you have any questions concerning this matter, please contact Mr. Ralph A. Phillips, at ext. 3159. Please contact me when this work has been completed.

Attachment (2 pages)

Maxim V. Arefyev/mva

cc: Thomas A. Harley – James H. Norman - Rabih M. Barakat
Scott A. Hill - Robert P. Zaffetti – Ralph A. Phillips – David R. Tassavor
Ted Aldieri, FHWA
TranSystems Corporation

NO.	DATE	DESCRIPTION
△1	7/25/12	ASW/NAH/(TSC)

REVISIONS

PHOTO LOG TranSystems

Bridge # 00700
Carried / Crossed GUINEA ROAD / RT 15

Sheet 10 of
Date 7/25/2012
Photographer NPH

Photo #	Looking	Image Description
1	W	EAST ELEVATION
2	SW	HVY VEG ON EAST SPANDREL WALL @ S. END
3	NW	E. SPANDREL WALL @ N. END
4	SW	SE WINGWALL W/ HVY VEG
5	NW	typ U/S OF ARCH, NORTH HALF
6	SW	SOUTH END OF ARCH SPALLS / STONE SLOPE PROTECTION
7	S	BRIDGE ID # @ S. END OF ARCH,
8	N	typ U/S OF ARCH
9	E	SPALLS @ E. EDGE OF ARCH OVER RT 15 NB LANES
10	SE	CRACKING, HVY EFFLO @ E. EDGE OF ARCH @ S. END
11	N	SPALLS ON E. EDGE OF ARCH U/S
12	SE	SPALLS @ S. END OF ARCH
13	N	SPALLS ON W. EDGE OF ARCH U/S, NORTH HALF
14	E	SPALL ON ARCH U/S @ W. EDGE OVER RT 15 NB RT LN
15	SE	HVY EFFLO @ S. END OF ARCH ON W. EDGE
16	SE	SW WINGWALL OVERALL
17	NE	MARKETING REMOVING LOOSE CONCRETE
18	NE	WEST SPANDREL WALL
19	E	WEST SPANDREL WALL @ S. END
20	NE	WEST ELEVATION
21	E	" "
22	E	10'5" ADVANCE NOTICE CLEARANCE POSTING SIGN RT 15 NB RIGHT LANE
23	S	CLOSEUP OF SPALL @ S. END @ CENTER OF BR
24	S	CLOSEUP OF REBAR SL FROM PIC 23
25	W	SAME AS ~~#~~ PIC #14 W/ HVY MARKED

PHOTO LOG TranSystems

Bridge # 00700
Carried / Crossed GUINEA RD/RT 15

Sheet 2 of
Date 7/25/12
Photographer NPH

	Photo #	Looking	Image Description
	26	SW	HA'S & DIAG CRACK @ SW CORNER OF ARCH U/S
"B" BMM	27	NE	SPALL/HA (MARKED) OVER RT 15 NB & LOOSE ARCH RING STONE OVER RIGHT LN
	28	E	CLOSE-UP OF LOOSE ARCH RING STONE OVER RT 15 NB RT LN
	29	SE	WEST SPANDREL WALL
	30	NE	NW WINGWALL
	31	S	U/S OF ARCH, S. HALF OVERALL
	32	NE	N. ABUT/END OF ARCH & SLOPE BLOCK
	33	S	SPALLS ON U/S OF ARCH @ W. EDGE OVER SB LANES
	34	S	" " " " "
	35	N	ID PLATE ON U/S OF ARCH @ ~~[illegible]~~ N. END
	36	NE	LONG. CRK W/ EFFLO & LARGE SPALL @ NE CORNER OF ARCH U/S
	37	SW	U/S OF ARCH SPALLS @ E. EDGE OVER NB LANES
	38	NW	NE WINGWALL
"B" BMM	39	SE	(2) LOOSE HA'S OVER RT 15 SB RIGHT LANE @ EAST EDGE OF ARCH U/S
	40	W	IMPACT SCRAPE FW OF BRIDGE OVER RT 15 SB RT LANE
	41	W	10'11" CLEARANCE SIGN IN ADVANCE OF BR, RT 15 SB
"B" BMM	42	W	SPALL W/ EXP REBAR & LOOSE HA OVER RT 15 SB RT SHOULDER @ W. EDGE
"B" BMM	43	W	SPALL W/ EXP REBAR & LOOSE HA OVER RT 15 SB RT LANE (DASHED WHITE LINE) @ W. EDGE
	44	SW	OVERALL OF PICS # 42 & 43
7/25/2012	45	E	WEST SPANDREL WALL, (1) LOOSE STONE OVER RT 15 SB RIGHT LANE
7/26/12	46	W	SPALL/HA @ WEST EDGE OVER RT 15 NB LEFT LN
	47	W	" " " " "
"B" BMM	48	E	SPALL #14 & 29 OVER RT 15 NB LEFT LN W/ (3) LOOSE HA
	49	NE	SPALL #17 OVER RT 15 NB LEFT LN @ E. EDGE W/ ADJ HA
	50	NE	CLOSEUP OF DEEPEST PART OF # PIC 49

(13)

PHOTO LOG TranSystems

Bridge # 007 00
Carried / Crossed GUINEA RD / RT 15

Sheet 3 of
Date 7/26/12
Photographer NDG

	Photo #	Looking	Image Description
(6)	51	SE	SPAN #17 & ADJ HA OVER RT 15 NB LEFT LN & E EDGE
	52	SW	E. SPANDREL WALL W/ VINES & S. END
	53	NW	E. SPANDREL WALL W/ VINES & N. END
"B" BMM ↔	54	SE	SPAN #16 & LOOSE HA OVER RT 15 SB LEFT LN & MEDIAN
(10)	55	SE	HA & E. EDGE OVER RT 15 SB LEFT LN, N OF SPAN #16
	56	S	HA/SPALLS & E. EDGE OVER LEFT LANES & MEDIAN
"B" BMM →	57	E	LOOSE HA #19 OVER RT 15 SB LEFT LN & & OF BR
"B" BMM →	58	E	SPAN #15 & LOOSE HA OVER RT 15 SB LEFT LN
	59	S	BRIDGE FROM N. APPROACH
(15)	60	SW	WEST STONE PPT OVERALL
	61	SE	EAST STONE PPT OVERALL
	62	NE	N. END OF E. PPT, NO GUIDERAIL
	63	NW	N. END OF W. PPT, NO GUIDERAIL
	64	NW	N. APPROACH PAVEMENT
	65	W	N. ABUT JOINT PAVED OVER
	66	SW	TOD OVERALL, N. END
	67	SE	TYP. CURB (EAST)
	68	SW	ID PLATE ON EAST CURB & MID SPAN & SPAN CURB
	69	NE	TOD N. HALF
(25)	70	N	N. APPROACH FROM BRIDGE
	71	S	S. APPROACH FROM BRIDGE
	72	SW	BR. PAVEMENT POTHOLES & S. END
	73	SW	" " " "
	74	SE	S. END OF E. PPT, NO GUIDERAIL (ROCKS)
(30)	75	W	S. ABUT JOINT & SETTLED / POTHOLES & S. END

(13)

PHOTO LOG

TranSystems

Bridge # 00700
Carried / Crossed GUINEA RD / RT 15

Sheet 4 of
Date 7/26/12
Photographer NDH

Photo #	Looking	Image Description
(31) 76	SW	S. APPROACH PAVEMENT
77	SW	S. END OF W. PPT, NO APP RAIL
78	N	BRIDGE FROM S. APPROACH
79	N	SPLIT ALONG W. CURB BY WEB & PUMT, W/ VEG GROWTH (typ.)
(32) 80	NW	TOD OVERALL
81		
82		

Bridge No.	00700	**Inspected by 1:**	Nathan Hackmeister
Town:	Stamford	**Inspected by 2:**	Andrew Walter
Feature Carried:	Guinea Road	**Date Inspected:**	07/25/2012
Feature Crossed:	Rt 15 (Merritt Parkway)	**Project No.:**	170-3013

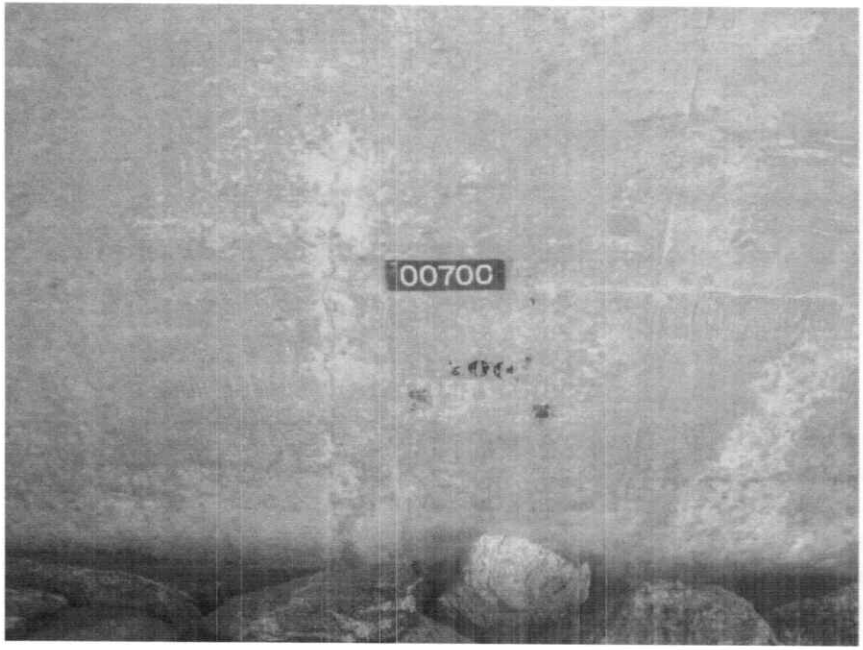


Photo 1: **Bridge ID.**

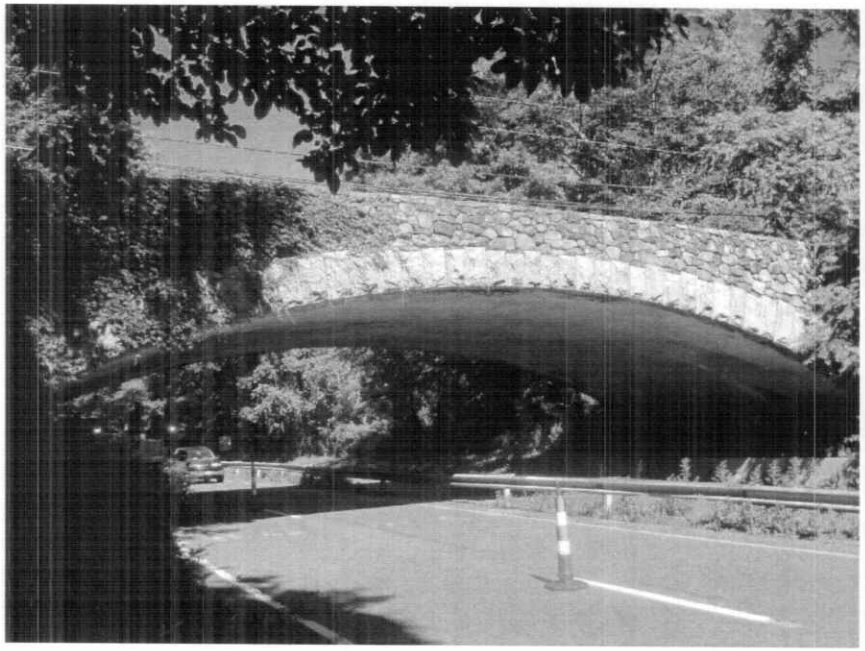


Photo 2: **East elevation.**

Prepared by TranSystems

Bridge No.	00700	**Inspected by 1:**	Nathan Hackmeister
Town:	Stamford	**Inspected by 2:**	Andrew Walter
Feature Carried:	Guinea Road	**Date Inspected:**	07/25/2012
Feature Crossed:	Rt 15 (Merritt Parkway)	**Project No.:**	170-3013

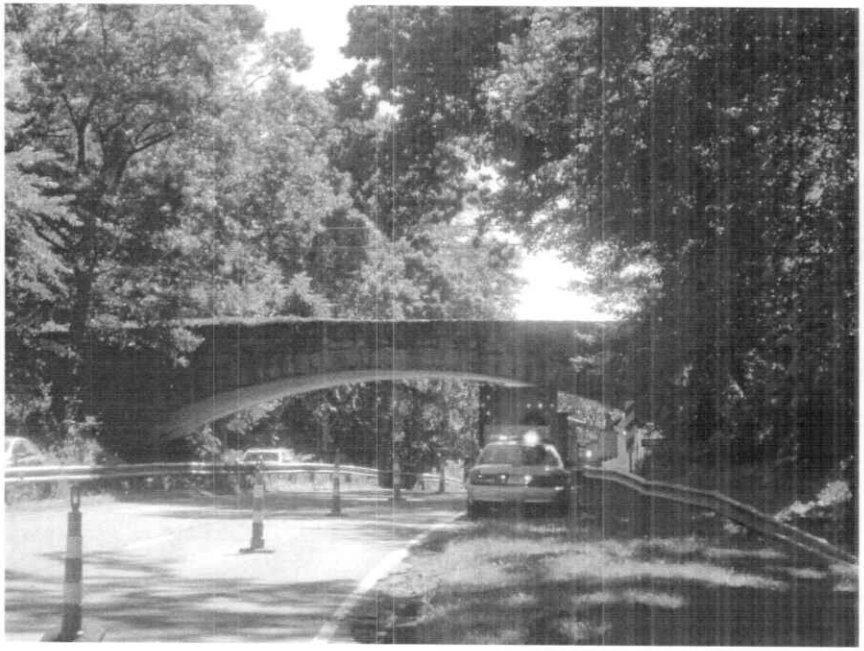


Photo 3: **West elevation.**

Photo 4: **Bridge from north approach.**

Prepared by TranSystems

Bridge No.	00700	**Inspected by 1:**	Nathan Hackmeister
Town:	Stamford	**Inspected by 2:**	Andrew Walter
Feature Carried:	Guinea Road	**Date Inspected:**	07/25/2012
Feature Crossed:	Rt 15 (Merritt Parkway)	**Project No.:**	170-3013

Photo 5: **Bridge from south approach.**

Photo 6: **South approach from bridge.**

Prepared by TranSystems

Bridge No.	00700	**Inspected by 1:**	Nathan Hackmeister
Town:	Stamford	**Inspected by 2:**	Andrew Walter
Feature Carried:	Guinea Road	**Date Inspected:**	07/25/2012
Feature Crossed:	Rt 15 (Merritt Parkway)	**Project No.:**	170-3013

Photo 7: **North approach from bridge.**

Photo 8: **Typical overlay condition, looking northwest. Random cracks open to 1/4"W throughout. Approximately 50% are sealed.**

Prepared by TranSystems

Bridge No.	00700	**Inspected by 1:**	Nathan Hackmeister
Town:	Stamford	**Inspected by 2:**	Andrew Walter
Feature Carried:	Guinea Road	**Date Inspected:**	07/25/2012
Feature Crossed:	Rt 15 (Merritt Parkway)	**Project No.:**	170-3013

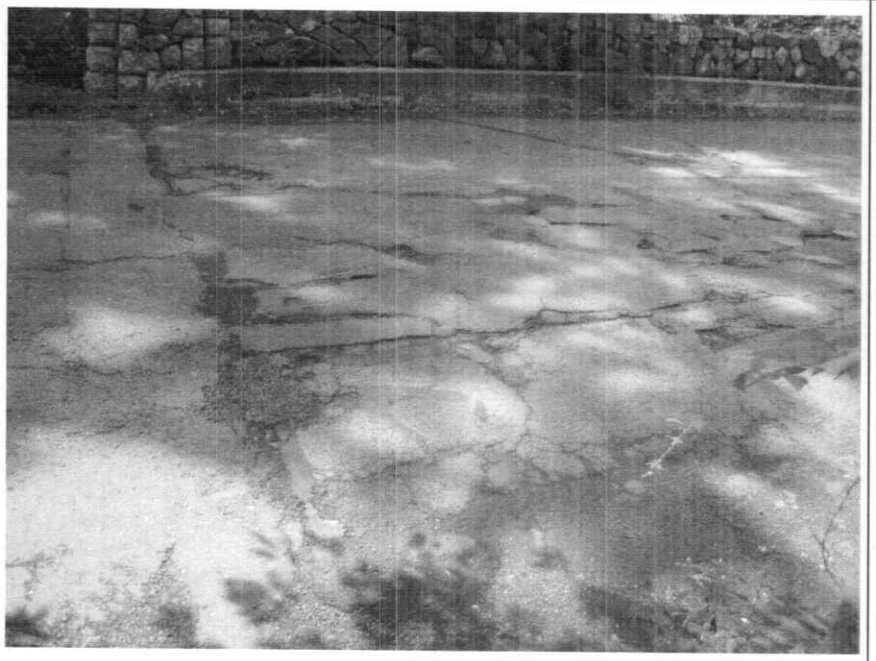


Photo 9: **Bituminous overlay condition at the south end. Note the 25'L x 5'W area of breaking up/patched pavement with potholes up to 18"L x 6"W x 2" D.**

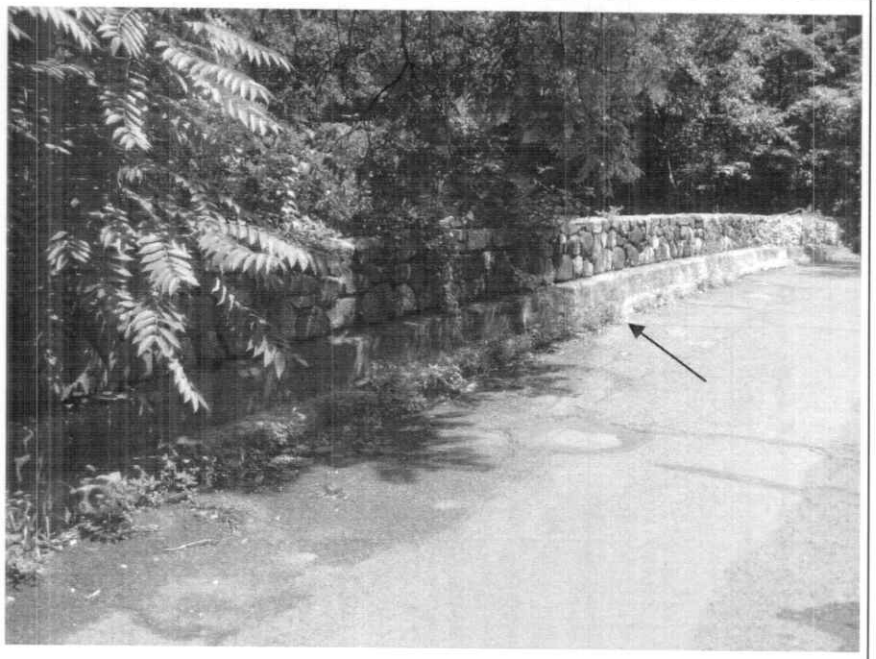


Photo 10: **General view of the east stone masonry parapet and concrete curb, looking southeast. Note that there is separation between the pavement and curb up to 1/4"W with vegetation growth protruding.**

Prepared by TranSystems

Bridge No.	00700	**Inspected by 1:**	Nathan Hackmeister
Town:	Stamford	**Inspected by 2:**	Andrew Walter
Feature Carried:	Guinea Road	**Date Inspected:**	07/25/2012
Feature Crossed:	Rt 15 (Merritt Parkway)	**Project No.:**	170-3013

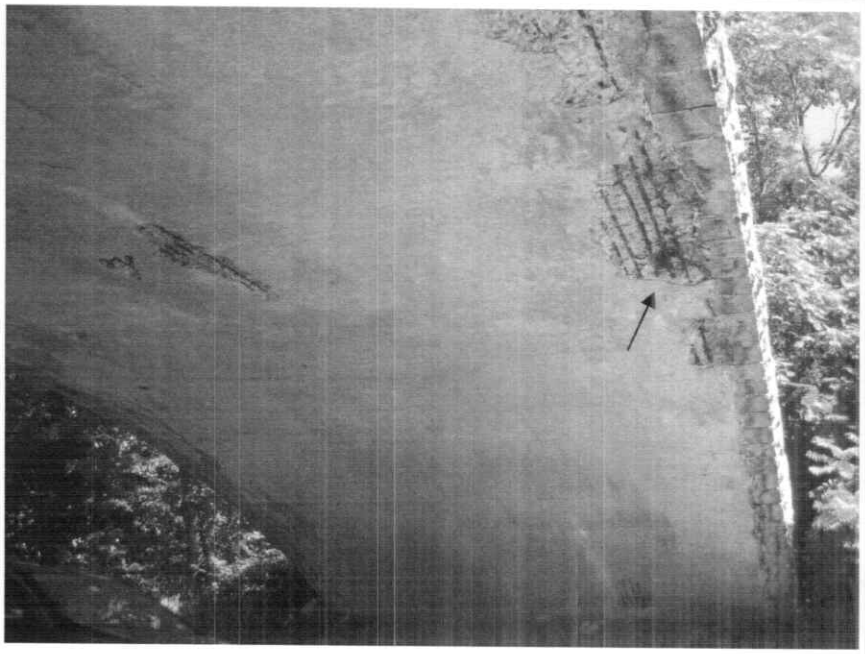


Photo 11: **Typical underside of arch, looking north. Note several spalls up to 11'-6"L x 3'-6"W x 8"D with exposed rebar. See photo # 12.**

Photo 12: **Spall up to 8" deep over RT 15 southbound left lane, east side of bridge. Note that the exposed rebar has approximately 25% loss.**

Prepared by TranSystems

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Town:	Stamford	**Inspected by 2:**	Andrew Walter
Feature Carried:	Guinea Road	**Date Inspected:**	07/25/2012
Feature Crossed:	Rt 15 (Merritt Parkway)	**Project No.:**	170-3013

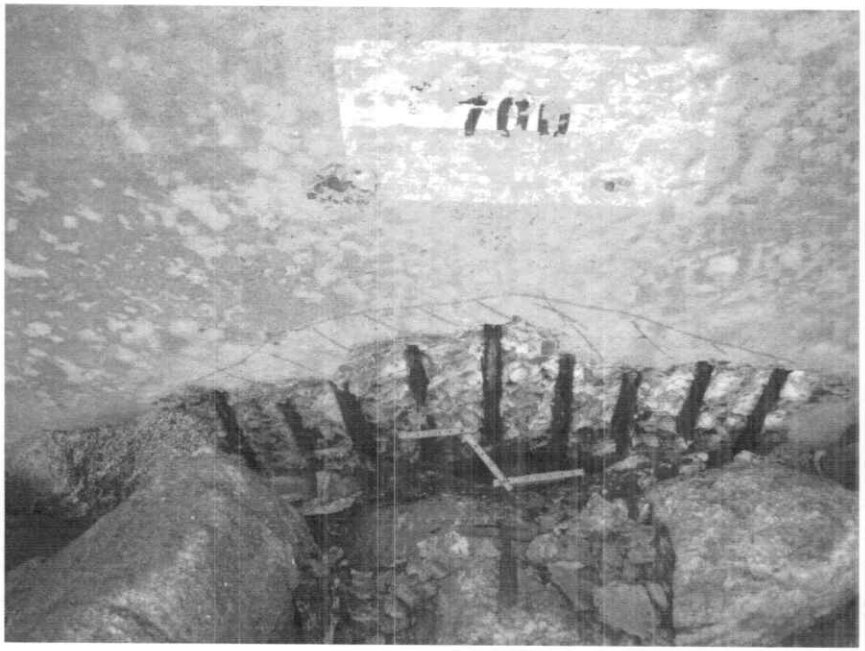

Photo 13: **6'L x 2'-6"W x 3"D spall with exposed rebar at the south arch end. Isolated bars have section loss with 3/8" remaining (approximately a 75% loss).**

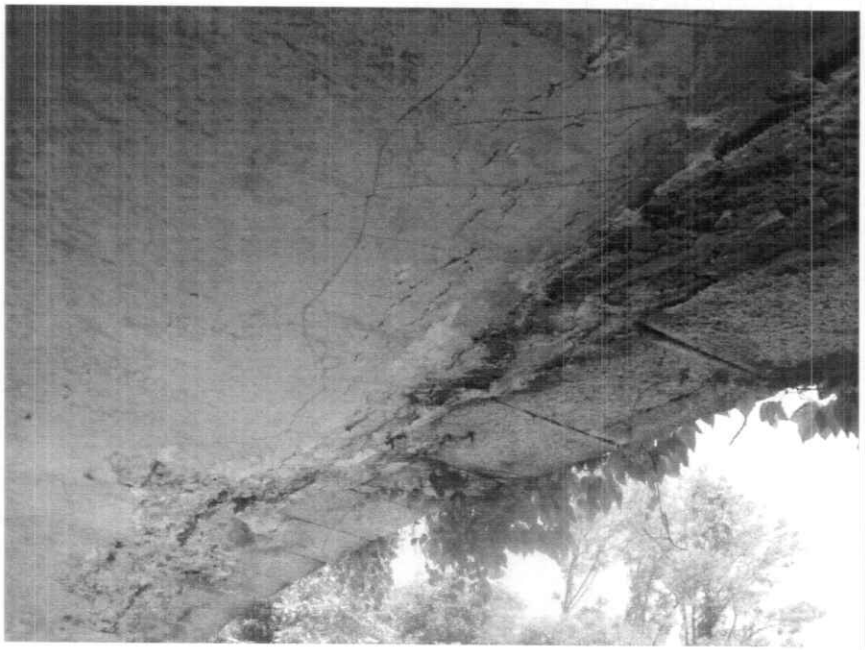

Photo 14: **Spalls and hollow areas over RT 15 northbound, looking northeast. Note that this condition is similar along the full length of the arch on both sides with random hollow areas loose.**

Prepared by TranSystems

Bridge No.	00700	**Inspected by 1:**	Nathan Hackmeister
Town:	Stamford	**Inspected by 2:**	Andrew Walter
Feature Carried:	Guinea Road	**Date Inspected:**	07/25/2012
Feature Crossed:	Rt 15 (Merritt Parkway)	**Project No.:**	170-3013

Photo 15: **(1) partially loose stone on the west spandrel wall, over the right lane of RT 15 southbound.**

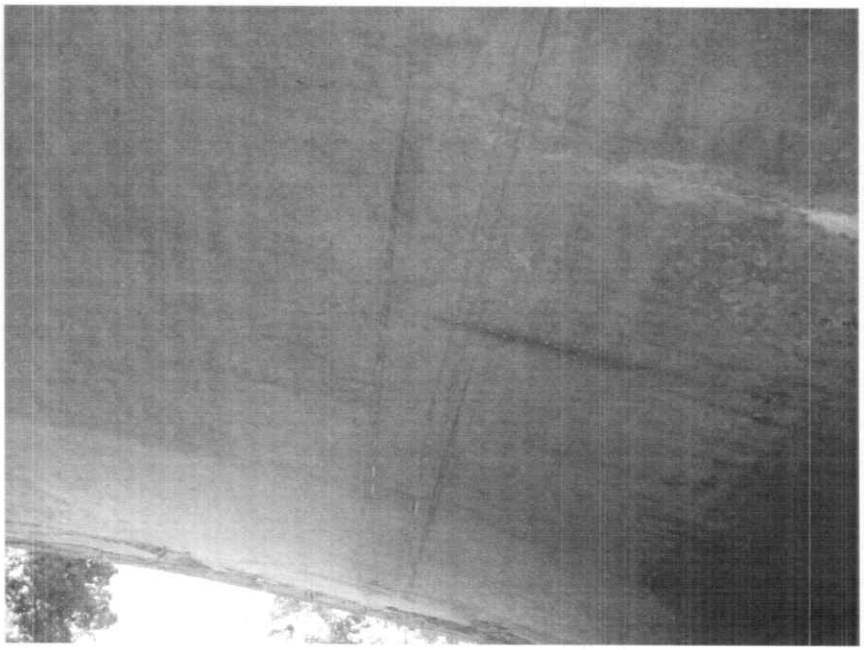

Photo 16: **Minor collision scrapes over RT 15 southbound right lane (similar condition over RT 15 northbound right lane).**

Bridge No.	00700	**Inspected by 1:**	Nathan Hackmeister
Town:	Stamford	**Inspected by 2:**	Andrew Walter
Feature Carried:	Guinea Road	**Date Inspected:**	07/25/2012
Feature Crossed:	Rt 15 (Merritt Parkway)	**Project No.:**	170-3013

Photo 17: **North end of the arch. Note that the abutment is not visible.**

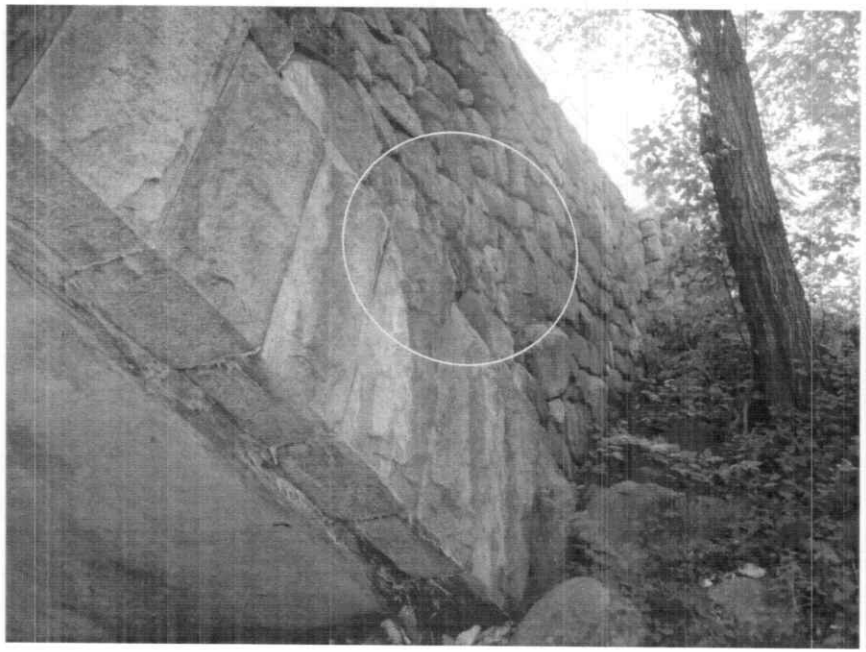

Photo 18: **Southwest wingwall. Note the 4' diameter area of efflorescence between the stones.**

Prepared by TranSystems

Bridge No.	00700	**Inspected by 1:**	Nathan Hackmeister
Town:	Stamford	**Inspected by 2:**	Andrew Walter
Feature Carried:	Guinea Road	**Date Inspected:**	07/25/2012
Feature Crossed:	Rt 15 (Merritt Parkway)	**Project No.:**	170-3013

Photo 19: **Southeast wingwall with heavy vegetation.**

Photo 20: **South end of the east parapet. Note that there are no guiderails, only large stones at the bridge corners.**

Prepared by TranSystems

Bridge No.	00700	**Inspected by 1:**	Nathan Hackmeister
Town:	Stamford	**Inspected by 2:**	Andrew Walter
Feature Carried:	Guinea Road	**Date Inspected:**	07/25/2012
Feature Crossed:	Rt 15 (Merritt Parkway)	**Project No.:**	170-3013

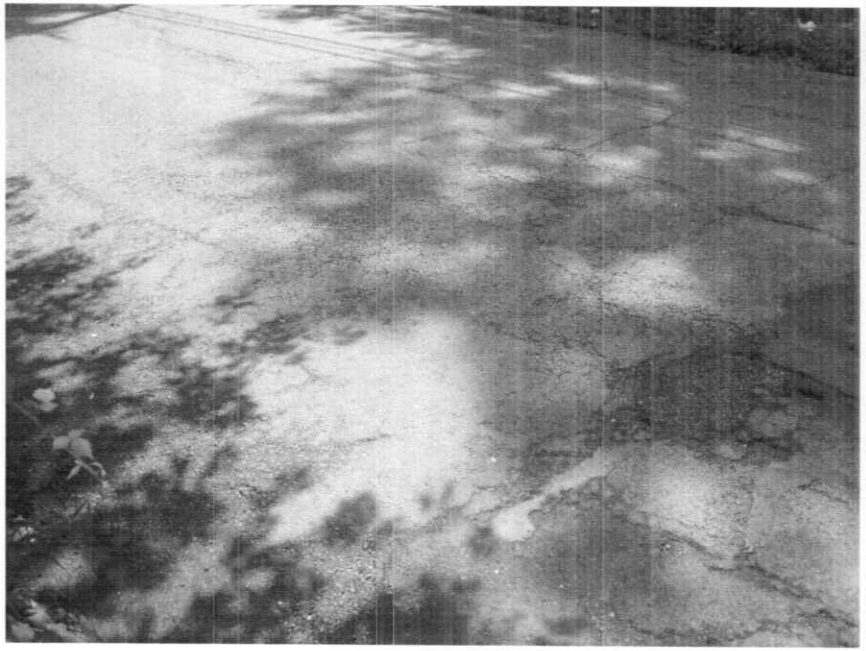

Photo 21: **South approach pavement, looking southwest. Note the area of map cracks full width x 15'L x open to 1/4"W.**

Photo 22: **North approach pavement, looking northwest. Note the cracks open to 1/2"W and moderate raveling.**

WT-Nathan Hackmeister

From: WT-Nathan Hackmeister
Sent: Thursday, July 26, 2012 5:39 PM
To: Jantzen, Ronald D
Cc: Dumas, Sandra A; WT-Brian McGovern; WT-Christopher Donohue; WT-Karen Donohue; WT-Andrew Walter
Subject: Bridge #00700 - BMM Priority B
Attachments: 00700 BMM Template (Priority B).doc

Ron;

Attached please find bridge maintenance memos (priority B) for hollow loose concrete on the arch intrados of Bridge #00700.

Thank You

Nathan P. Hackmeister

TranSystems
76 Westbury Park Road
Watertown, CT 06795-2779
Main: 860-274-7544
Direct: 860-417-4577
Fax: 860-274-9401
www.transystems.com

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STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MEMORANDUM

subject: **BMM No. 12-439**
Bridge No. 00700
Guinea Road over Route 15
Stamford

date: August 10, 2012

to:
Transportation Maintenance Administrator
Bureau of Highway Operations

from: Sandra A. Dumas
Sandra A. Dumas
Transportation Supervising Engineer
Bureau of Engineering and Construction

This memorandum is a follow-up to a telephone conversation on July 27, 2012 between David Hiscox of your staff and Ronald Jantzen of this office, concerning the following deficiency and recommendation for the subject structure:

1. There are (11) loose hollow areas on the underside of the arch over the Route 15 travel ways. There are adjacent areas that sound hollow but are secure that should be checked within the same lane closures.

   Route 15 Northbound:
   A- There is a loose chunk of concrete at the east fascia over the northbound right lane, see attached photos #1, 2.
   B- There are (3) loose hollow areas up to 20" wide x 20" long over Route 15, northbound left lane near bridge centerline, see attached photo #3.
   Route 15 Southbound:
   C- There are (2) loose hollow areas up to 18" diameter over Route 15, southbound right lane at the east fascia, see attached photo #4.
   D- There are (2) loose hollow areas over Route 15, southbound right lane at the west fascia, see attached photo #5.
   E- There is a loose hollow area up to 4'± diameter over Route 15, southbound left lane and median at the east fascia, see attached photo #6.
   F- There is a loose hollow area, 1'± diameter over Route 15, southbound left lane at the center of the bridge, see attached photo #7.
   G- There is a loose hollow area, 20"± diameter over Route 15, southbound left lane, approximately 10' east of the west fascia, see attached photo #8.

Please direct persons under your jurisdiction to:

1. Remove loose concrete (1± CY).

All repairs shall be performed utilizing appropriate approved materials and tried and proven methods unless otherwise specified.

This item should be considered **Priority B**. Additional items may be forwarded with the final inspection report.

If you have any questions concerning this matter, please contact me at ext. 2072. Please contact me when this work has been completed.

Attachment
Nathan Hackmeister/nph/sad
cc: Thomas A. Harley – Jennifer Trio
James H. Norman
Scott A. Hill - Robert P. Zaffetti – Sandra A. Dumas – Ronald D. Jantzen
Ted Aldieri, FHWA
TranSystems Corporation

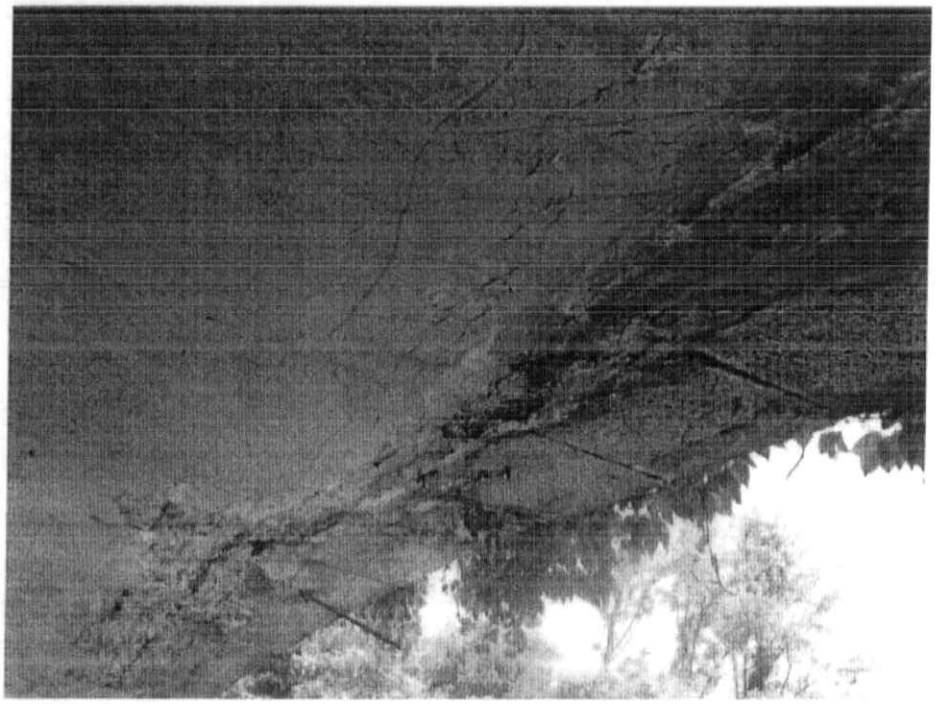


Photo #1: Loose concrete chunk over Route 15, northbound right lane at east fascia, looking northeast.

Photo #2: Close-up of Photo #1, looking east.

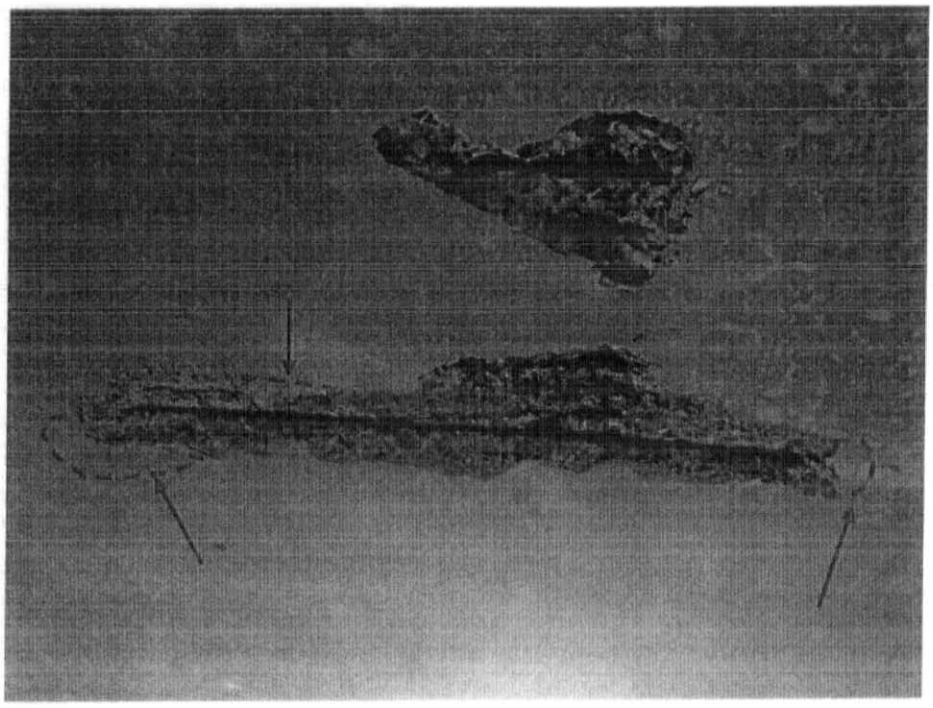


Photo #3: (3) loose hollow areas up to 20" wide x 20" long over Route 15, northbound left lane near bridge centerline, looking east.

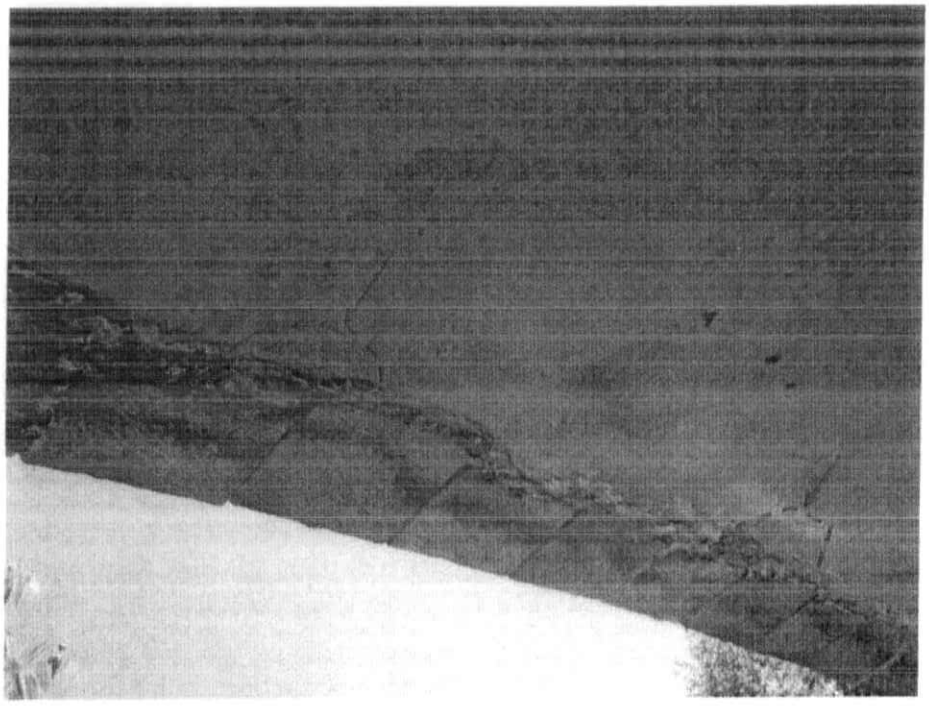


Photo #4: (2) loose hollow areas up to 18" diameter over Route 15, southbound right lane at the east fascia, looking southeast.

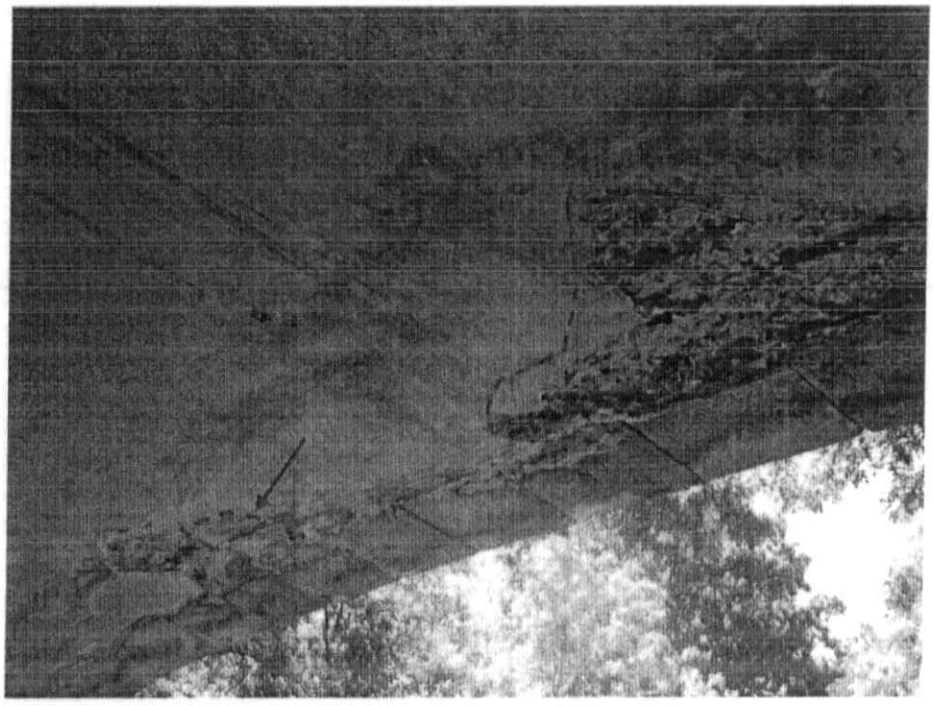


Photo #5: (2) loose hollow areas over Route 15, southbound right lane at the west fascia, looking southwest

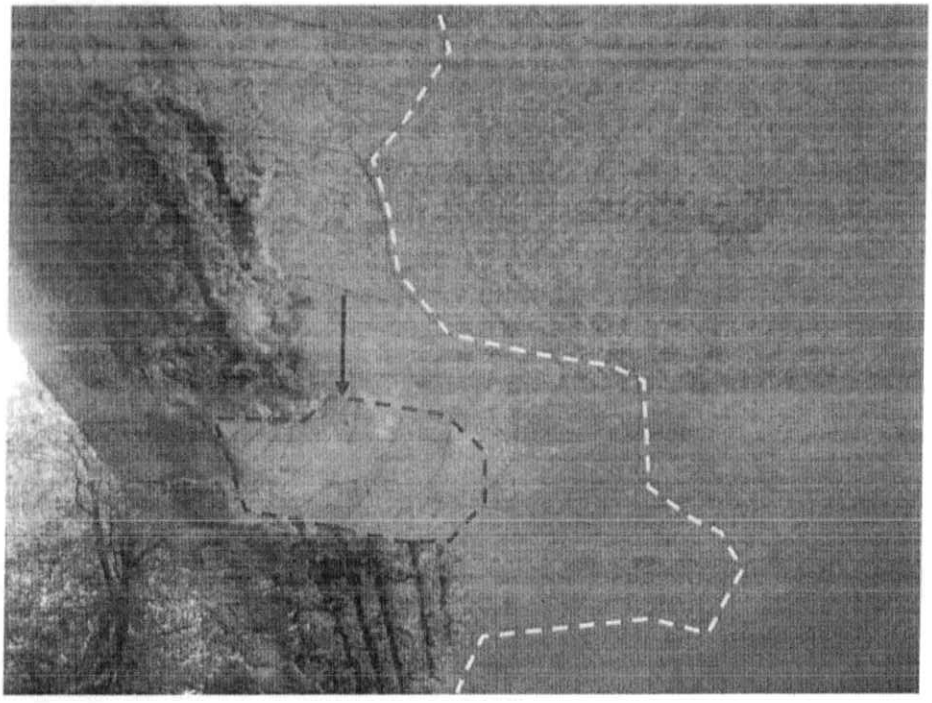


Photo #6: Loose hollow area up to 4'± diameter over Route 15, southbound left lane and median at the east fascia, looking south. Yellow dashed line is the edge of hollow area, red dashed line is the edge of loose hollow area.

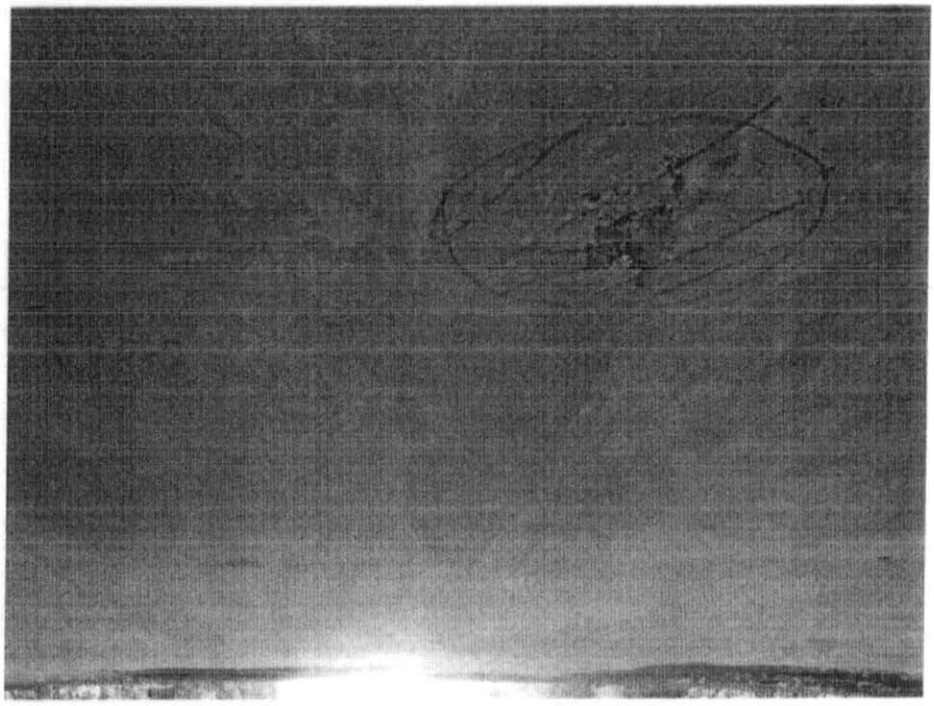


Photo #7: Loose hollow area, 1'± diameter over Route 15, southbound left lane at the center of the bridge, looking east.

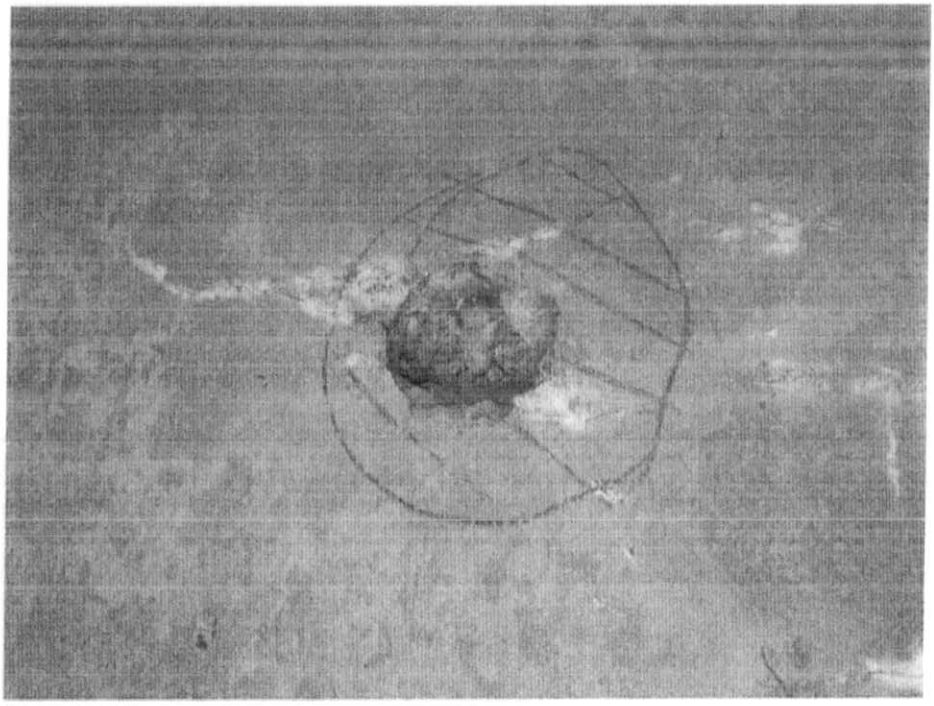
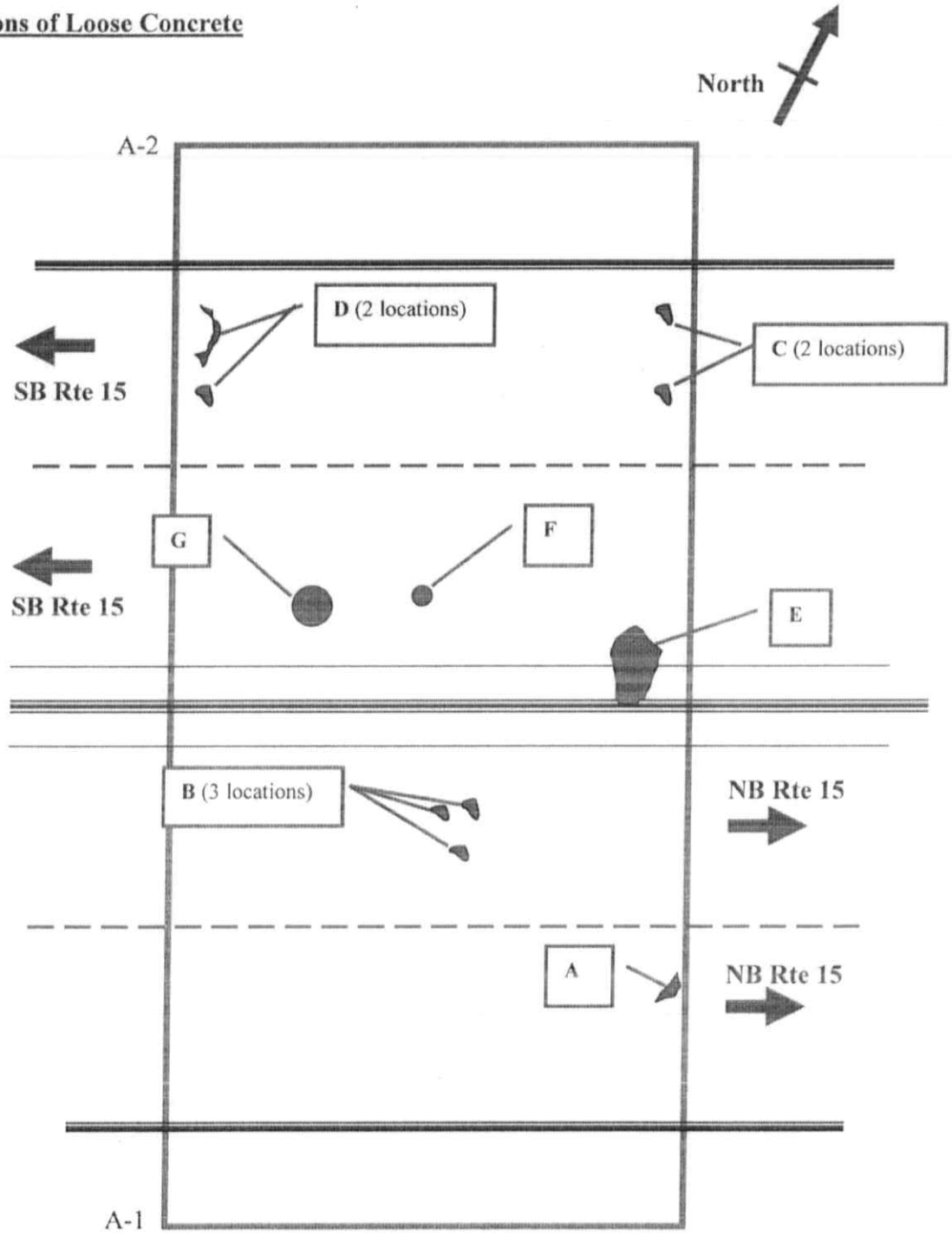


Photo #8: Loose hollow area, 20"± diameter over Route 15, southbound left lane, approximately 10' east of the west fascia, looking east.

Locations of Loose Concrete



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

MEMORANDUM

subject: **BMM No.**
Bridge No. 00700
Guinea Road over Route 15
Stamford

date:

to:
Transportation Maintenance Administrator
Bureau of Highway Operations

from: Ronald D. Jantzen
Project Engineer
Bureau of Engineering and Construction

Attached are two copies of our most recent inspection report for the subject structure which indicates the location of the following deficiencies:

1. The intrados of the reinforced concrete arch has severe spalls with exposed rebar. Most locations of exposed rebar have approximately 10-25% section loss. Isolated bars have up to approximately a 75% loss. See report photos #11 - 14 and field sheets 5 - 6.

Please direct persons under your jurisdiction to:

1. Clean and coat the exposed rebar (400 LF) and patch the spalls (3 CY).

Item No. 1 should be considered Priority C. There may be other deficiencies which are considered routine maintenance that should be corrected.

All repairs shall be performed utilizing appropriate approved materials and tried and proven methods unless otherwise specified.

If you have any further questions concerning these repairs, please contact me at 203-656-0143. Please notify this section when the work has been completed.

Attachments

Nathan Hackmeister/nph

cc: Scott A. Hill - Robert P. Zaffetti – Sandra A. Dumas – Ronald D. Jantzen
TranSystems Corporation