Structure No. 0 0706

Route 15 {Merritt Parkway}

over

Route 137 {High Ridge Road}

Stamford

Route 15 - Mile Point 10.66

Routine Inspection
on
11-May-11

Inspected By Team No. 8

For Area No. 8

TEAM:	Forwarded to T.E. 3: D PAWLIKOWSKI	Date: 5 27 11

T.E. 3:	Reviewed By T.E. 3: D PAWLIKOWSKI	Date: 6 6 11
	BMM Required: NO	
	Town Structure: NO	
	Rating <= 5 {Item Nos. 58, 59, 60, 61 or 62}: NO	
	Forwarded to Supervisor:	Date:
	Forwarded to "To Be Copied Drawer": ✓	Date: 6 6 11
	Date BRI-19 Entered: 6 6 11	

SUPERVISOR:	Reviewed By Supervisor	Date:

Support:	Date Copies Made: 6-21-11	BMM No. Trans	
	Scanned By: gp	Date: 7/5/11	PDF Box No.:

NBIS: Yes

Last Inspection Date: March 31, 2009

State of Connecticut - Department of Transportation
Bureau of Engineering & Construction - Bridge Safety & Evaluation

Bridge No.: 0 0706 **Town:** Stamford

Location: Route 15 {Merritt Parkway} over Route 137 {High Ridge Road}

Inspection Date: May 11, 2011

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Bridge Number **00706**

Inspected By: Ferrara & Holdridge

Sufficiency Rating 71.00
Previous Inspection Date 3/31/2009

BS&E Received ☐ Data Entry By: DP
Copies Made ☐ Data Entry Date: 6 6 11

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BRIDGE SAFETY & EVALUATION

STRUCTURE EVALUATION

SHEET_____ OF_____ (INSP. REPORT)

90) Inspection Date	Inspection Team	91) Frequency	Class:
05/11/11	8 08	24	02
Indepth Insp	Deck Survey	Access	Flagman
11/11/2004		21	0

CRITICAL FEATURE INSPECTIONS

	Type	Frequency	Team	Date
Fracture:				
Uwater:				
Special:				

RED FLAG

IDENTIFICATION

Bridge Name
Town Name STAMFORD Town Code 73070
5) Inventory Route:
A) Record Type 1 D) Route Number 00015
B) Signing Prefix 3 State Highway E) Directional Suffix 0 NA
C) Level of Service 1 Mainline
6) Feature Intersected ROUTE 137
7) Facility Carried: ROUTE 15
9) Location ROUTE 15 EXIT 35
11) Milepoint 10.66 Miles
16) Latitude 41deg 6 min 6.00 sec deg min sec
17) Longitude 73deg 32 min 48.00 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 3 Steel B) Design Type 7 Frame (except frame culverts)
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 1 Concrete Cast-in-Place
108) Wearing Surface/Protective System:
A) Type of Wearing Surface 6 Bituminous
B) Type of Membrane 2 Preformed Fabric SHEET
C) Type of Deck Protection 1 Epoxy Coated Reinforcing

AGE AND SERVICE

27) Year Built 1937 106) Year Reconstructed 1994
42) Type of Service:
A) On 1 Highway B) Under 1 HIGHWAY
28) Number of Lanes:
A) On 4 B) Under 4
29) Average Daily Traffic 56400 55400 Half ADT?: No
109) Percent Truck 8%
30) Year of ADT 2007 2009
19) Bypass, Detour Length 5miles

GEOMETRIC DATA

48) Length of Max Span 67ft 66.50 FT
49) Structure Length 67ft 67.26 FT
50) Curb or Sidewalk Widths:
A) Left 0.0ft B) Right 0.0ft
51) Brg Rdwy width,curb-curb 56.1ft 56.08 FT
52) Deck Width, Out-Out 65.0ft 65.00 FT
32) Approach Roadway Width 59ft 56.08 FT 56
33) Bridge Median 2 Closed Median,no barrier
67.26 FT × 65.00 FT Deck Area 4355 sqft 4371.9 SF 4372 sqft
34) Skew Angle 40deg 40°-15'-20"
35) Structure Flared 0
10) Inv. Rte. Min. Vert Clearance 99ft 99in
47) Log Inv. Rte. Total Horiz Clr.: 28.0ft 28.04 FT
47) RLog Inv. Rte. Total Horiz. Clr.: 28ft 28.04 FT
53) Min Vert Clearance Over Bridge 99ft 99in
54) Min Vert Under Clearance H Ref 12ft 4in H Ref 12ft 05in
55) Min Lat Under Clearance on Right H Ref 0.0ft H Ref 1.0ft
56) Min Lat Under Clearance on Left 0.0ft

BRIDGE COMMENTS

Item 54 is 12 FT-7 IN iat edge of Rte 137 SB travelway; vertical clearance of 12 FT-0 IN is at curbline rdj 2/23/07

STRUCTURE EVALUATION

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

SHEET_____ OF_____

Bridge Number	00706	NBIS Length
Town Name	STAMFORD	Yes 67
Facility Carried	ROUTE 15	
Feature Crossed	ROUTE 137	

Inspected By: FERRARA & HOLBRIDGE

CLASSIFICATION

112) NBIS Bridge Length	Yes	
104) Highway System	1	On System
26) Functional Class	12	Urban Principal Arterial - Other
100) Defense Highway	2	Is on a Non-Interstate 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 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	5	Bridge is not eligible for 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

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. PR Project No. 0135-0249 Advertised 12/3/2008

POSTED SIGNS & UTILITIES

Other Posted Signs 1

Other Posted Signs 2

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	11 ft 9 in		ft in
Posted Speed Limit	55 mph		mph

Utility

LOAD RATING AND POSTING

31) Design Load	4	Evaluation Code	L
63) Operating Rating Type	1	Year of Evaluation	2002
64) Operating Rating	69.4	70) Bridge Posting	5
65) Inventory Rating Type	1	41) Structure Status	R
66) Inventory Rating	41.7	Posted for other load-capacity restriction	

R ~~A~~

CONDITION

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

APPRAISALS

	Rating	By
67) Structure Evaluation	6	MH
68) Deck Geometry	2	MH
69) Under Clear Vert & Horiz	3	MH
71) Waterway Adequacy	N	MH
72) Approach Rdwy Alignment	8	MH
113) Scour Critical		

Items 58 Thru 72 Checked By:

36) Traffic Safety Features:

A) Bridge Railings	1
B) Transitions	0
C) Approach Guardrail	0
D) Approach Guardrail End	1

OTHER FEATURES

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

INSPECTION COMMENTS

Proposed Next Indepth Insp Year	2013
Senior	Ron Jantzen
Supervisor	Joseph Kozlowsk

REVIEWED BY: LT PM ROADS) Date 6 6 11

BRIDGE NUMBER	TOWN NAME	NBIS BRG LGTH	
00706	STAMFORD	Yes	67
FACILITY CARRIED	FEATURE CROSSED		
ROUTE 15	ROUTE 137		

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
DIVISION OF BRIDGE SAFETY EVALUATION

INVENTORY ROUTE UNDER STRUCTURE EVALUATION

FORM BRI-25 REV 10/00

INSPECTED BY: FERRARA
Holoriage 5/11/11

REVIEWED BY: DP DATE: 6 6 11

SHEET_____ OF_____ (INSP. REPORT)

IDENTIFICATION

DESCRIPTION:

5) INVENTORY ROUTE:

A) RECORD TYPE	2	
B) ROUTE SIGNING PREFIX	5	City Street
C) DESIGNATED LEVEL OF SERVICE	0	None of the below
D) ROUTE NO.	00137	
11) MILE POINT (INV.RTE)	4.56	

CLASSIFICATION

26) INV. RTE. FUNCT CLASSIFICATION	14	Urban Other Principal Art
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	0	Not on national network

AGE & SERVICE

+ 28B) NUMBER OF INV.ROUTE LANES	4		
* 29) ADT (INV. RTE)	28100		25600
* 109) TRUCK ADT % (INV.RTE)	2		
* 30) YEAR OF ADT (INV. RTE)	2007		2009
* 41) INV ROUTE OPERATIONAL STATUS	A	Open, no restriction	
19) BYPASS DETOUR LENGTH	3	Miles	01

POSTED SIGNS

+ POSTED VERT. CLR UNDER BRIDGE 11 ft 9 in ft in

COMMENTS:

Vertical clearances posted as 11 FT-9 IN for Rte 137 SB and as 12 FT-9 IN for Rte 137 NB. Rdj 2/23/07
~~Item 55 changed to 00.0 FT as 12 IN high non-mountable curbing installed at foot of~~

GEOMETRIC DATA

+ 10) INV. RTE. MIN. VERT. CLEARANCE	15 ft 4 in	15 ft 02 in	ROUTE 137 NB
+ 47) LOG INV. RTE. TOTAL HORIZ CLR.	44.7 ft	ft	
+ 47) RLOG INV. RTE. TOTAL HORIZ CLR.	ft	ft	
+ LOG MIN VERT CLR OVER INV ROUTE	12 ft 0 in	13 ft 00 in	ROUTE 137 NB
+ RLOG MIN VERT CLR OVER INV ROUTE	ft in	12 ft 00 in	ROUTE 137 SB
+ 55) MIN LAT UNDERCLR ON RIGHT	H 0 ft	14 1.0 ft	
+ 56) MIN LAT UNDERCLR ON LEFT	0 ft	ft	

* 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

Abutment Stem Work Sheet

Bridge No.: 0 0706
Town: Stamford
Facility Carried\Feature Intersected: Route 15 {Merritt Parkway} over
Route 137 {High Ridge Road}

Abutment Stem No. or Nos.: Abutment Nos. 1 & 2

Abutment Stem Design Type: Full Height\Closed Abutments

Abutment Stem Material Type: Concrete

Abutment Stem Foundation Type: Spread Footings Founded on Rock

Item No. 113 Scour Critical: - N - Bridge Not Over Waterway

Tidal: Yes or No **Rip Rap:** Yes or No

Exposed Footing: Yes or No

Footing Undermining: Yes or No

Sheet Piles - Timber or Steel: Yes or No

Bed Rock: Yes or No **Concrete Apron:** Yes or No

Abutment Stem - In Water or Out of Water - At Normal Stage:

Normal Stage - The water stage prevailing during the greater part of the year.

Comments: Bridge Plans - Project No. 180 - 07 - Year 1936
Project No. 135 - 203 - Year 1991

Prepared By: David Pawlikowski, P.E.
CTDOT - Bridge Safety

Date: May 27, 2011

Connecticut Department of Transportation

Bridge Inspection Report BRI-18

Bridge #: 00706 **Inspection Date: 05/11/2011**

Inspection Type:	Routine	**Previous Inspection Date:**	3/31/2009	**Snooper Required:**	No
Inspection Performed By:	Team 8	**Feature Carried:**	ROUTE 15	**Snooper Used:**	No
Town:	STAMFORD	**Feature Intersected:**	ROUTE 137	**Year Built:**	1937
Location:	ROUTE 15 EXIT 35	**Main Design:**	Frame (except frame culverts)	**Year Rebuilt:**	1994
Main Material:	Steel				

Visits

Visit Date:	Temp:	Start Time:	End Time:
5/11/2011	65	9:30:00 AM	12:45:00 PM

Inspectors:

Inspector:	Task:
A. Ferrara	Lead Inspector
M. Holdridge	Inspector

DECK: Structure inspected west to east. **Overall Rating:** 6

	Rating	
OVERLAY:	6	Bituminous concrete overlay over membrane waterproofing exhibits: Southbound: Slightly open paving seam located on the centerline. A 10' long braided longitudinal crack in the slow speed lane. A 1' diameter x ½" deep spall located on the northeast corner. Delaminated bituminous along the curbline, 12" wide x full length. Northbound: Both lanes exhibit map cracking x full length of the structure 6' wide in each lane. An open paving seam open up to 1-1/2" wide located down the centerline.
DECK-STR. CONDITION:	6	Concrete underside exhibits: Wide pattern map cracking in all bays. Bay # 1; 80%. Bay # 2; 100%. Bay # 3; 70%. Bay # 4; 90%. Bay # 5; 100%. Underside deck deterioration is 45.4%. Note: There is no active deck leakage and the deck is protected by membrane and has epoxy coated rebars. Therefore the rating will remain a 6. Hairline transverse cracks with efflorescence at random locations. Full length x 18" wide concrete patch at construction joint in bay 3 exhibits random hollow areas and hairline cracks with and without efflorescence and

		minor spalls up to 8" diameter by ¼" deep. Consider having maintenance remove loose concrete and coat with a protective compound. The concrete fillers below haunches have vertical hairline cracks, some 1/16" wide. A 1' diameter hollow area at the east end of girder 2. A 30" long x 5" high x 4" deep haunch spall located over G-1 at abutment # 2.
CURBS:	7	Sloped granite curbs exhibit: Minor chipping on edges and cracking in the mortared joints. Reveal's: North 2-1/4". South 1-1/2". Shifted and settled granite curbs on all approaches.
MEDIAN:	7	Metal Beam Rail exhibits: Located in the median. Dented rail on east end and random scrape marks.
SIDEWALKS:	N	-
PARAPET:	5	Parapets exhibit: North parapet: 10 sf. of severe surface scale. Random areas of moderate scale on the cap. Map cracking throughout. Vertical and horizontal cracking. A 30" high x 6" wide potential joint spall located over A-2 right. (2) Spalls up to 2" deep. (2) ½" wide by full height cracks on the inside face. South parapet: 3 sf. of severe surface scale. Vertical cracks. Rub coat flaking off. Random areas of moderate scale on the cap.
RAILING:	5	Historic Steel Rail system exhibits: Moderate to heavy rust and peeling paint up to 70 percent. The bolted horizontal connections to the vertical support posts and base plates exhibit heavy laminar rust with up to 50% section loss. The ornamental steel deck fascia plates exhibit: Up to 25% peeling paint with moderate to heavy rust. Random decorative molding on the center plates is loose and or detached due to rusted off screws.
PAINT:	N	-
FENCE:	N	-
DRAINS:	N	-
LIGHTING STANDARD:	N	-

UTILITIES TYPE/SIZE:	N	-
CONSTR JOINTS:	6	See Deck above
EXPANSION JOINTS:	N	Non-formal joints exhibit: Transverse cracking up to 1/2 in. wide x full length, northbound and southbound with adjacent small bituminous spalls.

59. SUPERSTRUCTURE: -

Overall Rating: 6

	Rating	
BEARING DEVICES:	N	Encased in abutments, not visible.
STRINGERS:	N	-
GIRDERS:	6	Built-up riveted steel frame exhibits: Light to moderate rust on top and bottom flange edges at random locations. Random coverplate connections exhibit minor laminar rust build up between the plates. Girder # 1 at the west abutment exhibits: Section loss to the end stiffener on the north side at the base 17" high x 6" wide x ¼" deep. South side exhibits moderate to heavy rust with negligible section loss on the top and bottom flanges and rivets 12" long (starting at abutment outward) x full width of flange. Heavy rust with section loss on the soffit of the bottom flange adjacent to the abutment full width x 1" wide x ¼" deep. Girder # 1 at the east abutment exhibits: South side exhibits moderate to heavy rust with negligible section loss on the top and bottom flanges and rivets 12" long (starting at abutment outward) x full width of flange. The top flange on the north side starting at the abutment exhibits heavy rust with laminar build up 30" long x 4" wide. Section loss on the lower north side web 15" high x 1" wide x ¼" deep. Heavy rust with section loss on the soffit of the bottom flange adjacent to the abutment full width x 1" wide x ¼" deep. Girder # 2 at the east abutment exhibits: South side exhibits moderate to heavy rust with negligible section loss on the top and bottom flanges and rivets 12" long (starting at abutment outward) x full width of flange. Heavy rust with section loss on the soffit of the bottom flange adjacent to the abutment full width x 1" wide x ¼" deep. Section loss on the lower north side web 15" high x 1" wide x ¼" deep. Section loss on the upper web south side 14" high x 1" wide x ¼" deep. Girder # 3 at the east abutment exhibits: Heavy rust with section loss on the soffit of the bottom flange adjacent to the abutment full width x 1" wide x ¼" deep. Section loss on the lower north side web 15" high x 1" wide x ¼" deep. South side exhibits moderate to heavy rust with negligible section loss on the top and bottom flanges and rivets 12" long (starting at abutment outward) x full width of flange. Frame legs are embedded in concrete and not visible for inspection.

FLOOR BEAMS:	N	-
TRUSSES-GENERAL:	N	-
TRUSSES-PORTALS:	N	-
TRUSSES-BRACING:	N	-
PAINT:	6	Diaphragms with random minor spotty peeling paint with exposed primer. Girder ends at abutments with peeling paint up to 1' wide x full height with exposed primer. Scrape marks with moderate rust at beam ends, mainly at the west end.
RUST:	6	See Girders and Paint.
MACHINERY MOV SPAN:	N	-
RIVETS & BOLTS:	7	Built-up riveted steel frame: As built (2) missing rivets (1) from G-3 top flange (west end) and (1) from vertical stiffener # 3. See "collision damage".
WELDS - CRACKS:	7	Tack welds in top and bottom flange splice connections inspected hands on. No cracks noted.
TIMBER DECAY:	N	-
CONCRETE CRACKING:	N	-
COLLISION DAMAGE:	5	Collision damage: Girder # 3 near the east abutment exhibits minor scrapes to bottom flange and rivets. Girder # 2 west end exhibit: 6 linear feet (over the right southbound lane) of scrapes on the bottom flange full width up to 1/8" deep with minor damage to the rivet heads. Girder # 3 west end exhibits: 8 linear feet (over the right southbound lane) of scrapes and gouges full width of the bottom flange up to ½" deep with (3) sheared off rivet heads and minor to moderate damage to others. The bottom flange on the north side is bent upward 5/8" located below stiffener # 3. The bottoms of stiffeners 2 and 3 on the north side are bent 3" to the west. . Girders 5 and 6 have had rivets replaced with bolts (old repair). Also the bottom flanges are wavy due to past damage. Girder # 6 west end exhibits: Several scrapes and minor damage to random bolt heads.
MEMBER ALIGNMENT:	8	-
DEFLECT. UNDER LOAD:	N	-
VIBRATION UNDER LOAD:	N	-
STAND PIPES:	N	-
BARREL LADDERS:	N	-

ARE BARREL LADDERS OSHA COMPLIANT? NA

---

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

	Rating	
ABUTMENTS-STEM:	6	Concrete stems exhibit: Random vertical, horizontal and diagonal cracks with and without efflorescence open up to 1/4". (1) Isolated 3' diameter area of mapcracking. Hollow areas and a few popout/shallow surface spalls. (2) Isolated spalls up to 3' long x 4" wide x 2" deep with and without exposed rebar. Concrete base has full height random hairline cracks. Heavy vine growth noted at the south corner of west abutment. The east abutment stem has a few gouged areas up to 3 in. deep at the north end due to impact damage. Delaminated concrete coating at random locations.
ABUTMENTS-BACKWALL:	N	Not visible.
ABUTMENTS-FOOTINGS:	N	-
ABUTMENTS-SETTLEMENT:	8	-
ABUTMENTS-WINGWALLS:	7	Vine and vegetation growth in the joints at the north and southwest wingwalls. Heavy vine and vegetation growth along the southwest and southeast partially covering the wings.
PIERS/BENTS-CAPS:	N	-
PIERS/BENTS-PILE BENT:	N	-
PIERS/BENTS-COLUMNS:	N	-
PIERS/BENTS-FOOTING:	N	-
PIERS/BENTS-SETTLMT:	N	-
EROSION-SCOUR:	N	-
CONCRETE CRACK-SPALL:	6	See above.
STEEL CORROSION:	7	See above.
PAINT:	7	Abutments and wings painted with protective coating some has delaminated and peeled off.

TIMBER DECAY:	N	-
COLLISION DAMAGE:	N	-
DEBRIS:	N	-

---

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

---

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

---

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

	Rating	
APPROACH SLAB:	6	Not visible: Rating based upon pavement condition.
RELIEF JOINTS:	N	-
APPROACH GUIDE RAIL:	7	Metal Beam Rail system exhibits: (2) Detached week posts at the southbound trailing end. Scattered scrape marks.
APPROACH PAVEMENT:	6	Bituminous approach pavement exhibits: Areas of map cracking. Transverse and longitudinal cracking. Slightly open paving seams. 3 sf. of segregated bituminous located on the southbound leading approach in the slow speed lane. Up to 3" of settlement adjacent to the deck joint on the southbound leading approach high speed lane.
APPROACH EMBANKMENT:	8	-

TRAFFIC SAFETY FEATURES

Rating

BRIDGE RAILINGS:	Last Inspection: 1 Current: -	-
TRANSITIONS:	Last Inspection: 0 Current: -	-
APPROACH GUARDRAILS:	Last Inspection: 0 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: 12' 4" Current: 12' 5"	12'-00" is the minimum vertical clearance along the curbline located on Route 137 southbound under Girder # 3. The controlling girder is # 3. 12'-05' is the low in the travel lane of southbound Rt 137. 13'-00" is the minimum vertical clearance along the curbline located on Route 137 northbound under Girder # 3.

		13'-03" is the low in the travel lane of northbound Rt 137.
POSTED CLR. UNDER BRIDGE:	Last Inspection: 11' 9" Current: -' -"	Minimum vertical clearance over RT 137 southbound is 12'-00" at the curbline and 12'-05" in the travel way. 11-09" is posted on the north fascia of the bridge. Minimum vertical clearance over RT 137 northbound is 13'-00" at the curbline and 13'-03" in the travel way. 12'-09" is posted on the south fascia.
POSTED CLR. ON BRIDGE:	Last Inspection: -' -" Current: -' -"	-
ADVANCED WARNING (YES/NO):	No	-
SPEED LIMIT (IF ANY):	Last Inspection: 55 Current: -	-
CHARACTER OF TRAFIC:		-

ADDITIONAL NOTES:	Bridge identification number is clear and legible. Bridge is logged from west to east with frame #1 being on the north fascia.
ADDITIONAL COMMENTS:	Mark Silverio visited us at the job site.

Inspectors' Signatures:

1) Andrew Ferrara — Date: 5/27/11

2) Michael [illegible] — Date: 5/27/11

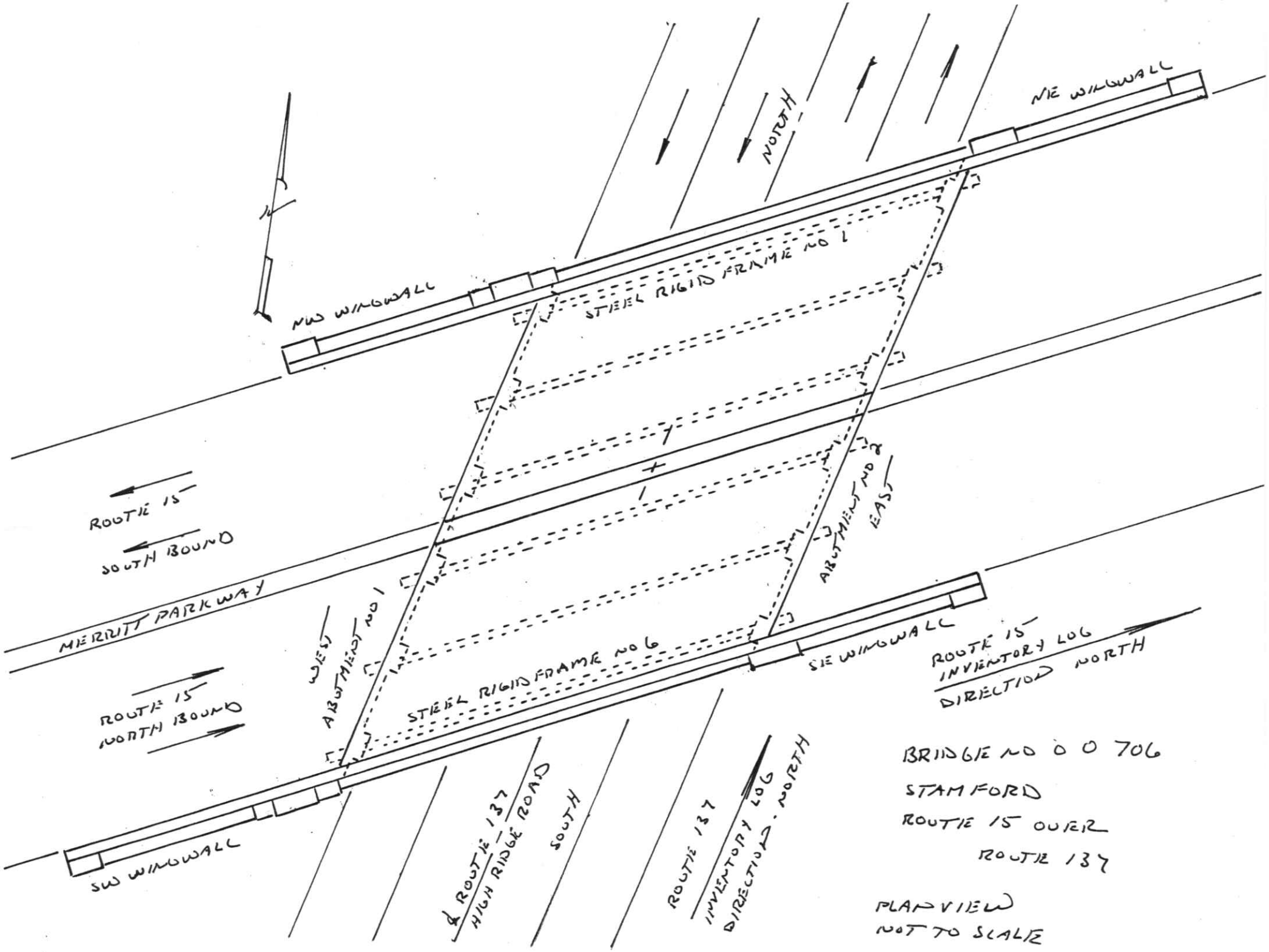
3) — Date: ---/---/---

4) — Date: ---/---/---

P.E. Signature: — Date: ---/---/---

P.E. #: 20859 — Date: 6/6/11

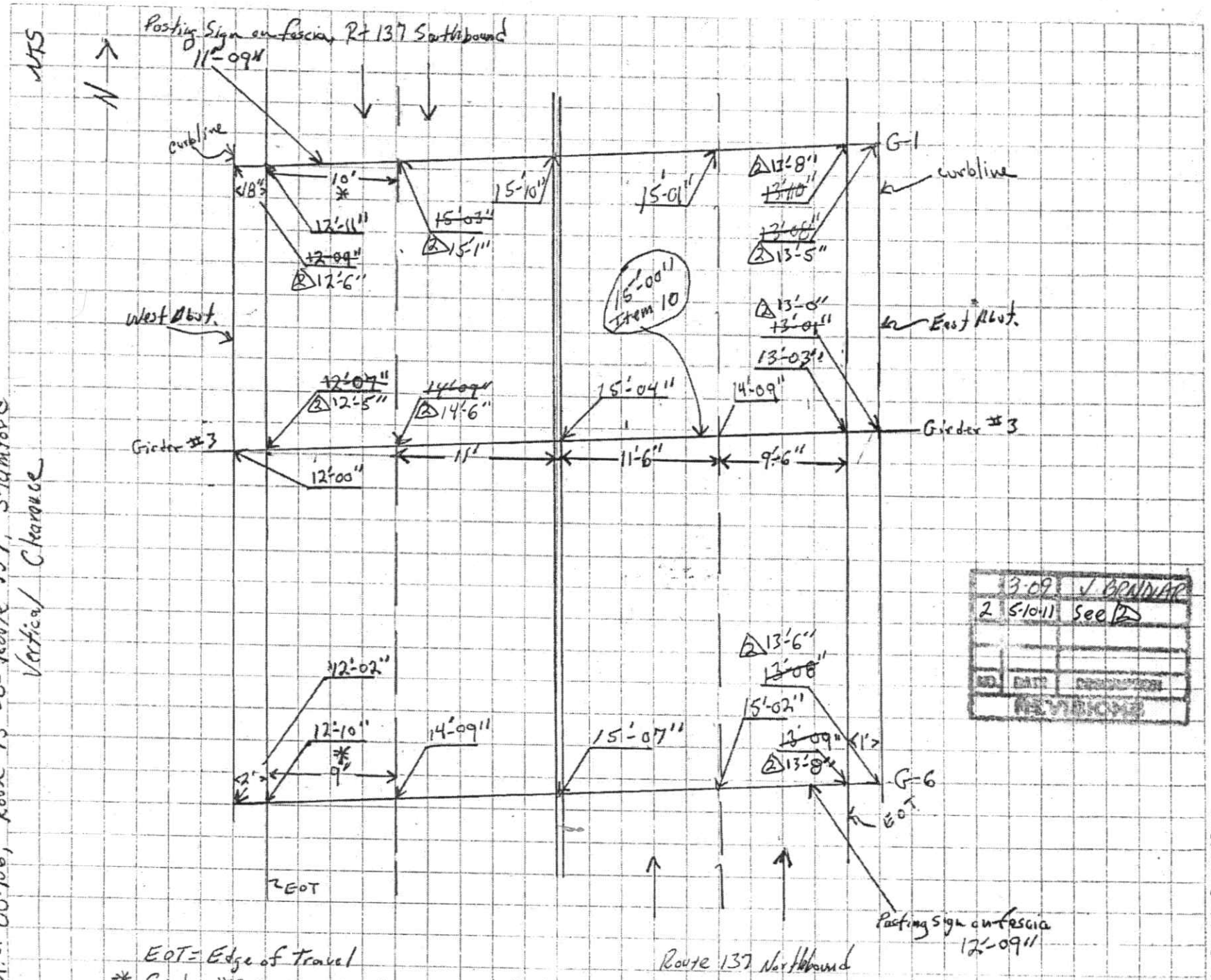
Reviewed by: conndot — Date: 6/6/11


NE WINGWALL
NORTH
NW WINGWALL
STEEL RIGID FRAME NO 1
ROUTE 15
SOUTH BOUND
MERRITT PARKWAY
WEST ABUTMENT NO 1
EAST ABUTMENT NO 2
STEEL RIGID FRAME NO 6
SE WINGWALL
ROUTE 15 INVENTORY LOG DIRECTION NORTH
ROUTE 15
NORTH BOUND
SW WINGWALL
ROUTE 137 HIGH RIDGE ROAD
SOUTH
ROUTE 137 INVENTORY LOG DIRECTION - NORTH
BRIDGE NO 0 0 706
STAMFORD
ROUTE 15 OVER
ROUTE 137
PLAN VIEW
NOT TO SCALE

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

PREPARED BY: Lervara
CHECKED BY:
DATE: 1-07
CHECKED:
ORGANIZATION UNIT NO.
WORK ORDER NO.
SHEET NO.

SUBJECT: Br. # 00706, Route 15 -o- Route 137, Stamford
Vertical Clearance



EOT = Edge of Travel
* Girder #3 is the controlling vertical Girder *

Printed on Recycled or Recovered Paper

Bridge # ... *706* **Date ...** *5/11/2011* **Prepared by ...** *Team 8* **checked by ...** _____

CONCRETE DETERIORATION WORKSHEET

Form BRI-10 Rev 2001

		Deterioration By Span - In Square Feet										
		Span Number										
Deterioration Type	X	1	2	3	4							Total
Spalled and Delaminated Areas	Top											
	Bot.	56										56
Scale (Moderate to Severe Only)	Top											
	Bot.											
Cracks: with Efflorescence (Use 6" width x length)	Bot.											
Cracks: w/o Efflo.(Use 3" width x Length)	Top											
	Bot.	15										15
Map Cracking/LSC w/Efflorescence (Use full Area)	Bot.	55										55
Map Cracking: w/o Efflo.(Use 50% of Area)	Top											
	Bot.	1855										1855
Honeycombed Areas: (only areas more than 1 1/2" deep)	Bot.											
Totals	Top											
	Bot.	1981										1981
Span Area		4355										
% Spalled and Delaminated on top												
% Deterioration on Bottom												45.4%

Note: 1 /
2 /
3 /

Connecticut Department of Transportation
Fracture Critical Members/Fatigue Prone Details
Inspection Data Sheet

Bridge No. 0 0706

Town: Stamford

Facility Carried: Route 15 {Merritt Parkway}

Feature Intersected: Route 137 {High Ridge Road}

Fracture Critical Inspection Date:

Fracture Critical Inspection Frequency: months

Fracture Critical Type Code:

Reference to Bridge Plans: Project No. 108 - 07 - Year 1936
Project No. 135 - 203 - Year 1991

Member/Detail Type Code: H - Highly fatigue Prone Details in Tension Areas

Fracture Critical: No

Fatigue Prone: Yes

Fatigue Category: B & D

Steel Type: Unknown Steel Grade
Year 1936 to 1963 - Fy 33 ksi
ASTM A588

Description: Bolted & Riveted Connections

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 00706 | Agency ID: 00706 | Sufficiency Rating: 84.4

IDENTIFICATION

State 1: 09 Connecticut | Struc Num 8: 00706
Facility Carried 7: ROUTE 15 | Location 9: ROUTE 15 EXIT 35
Rte.(On/Under)5A: Route On Structure | Rte. Signing Prefix 5B: 3 State Hwy
Level of Service 5C: 1 Mainline | Rte. Number 5D: 00015
Directional Suffix 5E: 0 N/A (NBI) | % Responsibility : 0
SHD District 2: 03 | County Code 3: Fairfield
Place Code 4: STAMFORD | Mile Post 11: 10.660 mi
Feature Intersected 6: ROUTE 137
Latitude 16: 41d 06' 42" | Longitude 17: 073d 32' 48"
Border Bridge Code 98: Unknown (P)
Border Bridge Number 99: NA

INSPECTION

Frequency 91: 24 months | Inspection Date 90: 5/11/2011 | Next Inspection: 05/11/2013
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: NA | Next SI: NA
Element Frequency: 24 months | Element Inspection Date: 05/11/2011 | Next Elem. Insp. Due: 05/11/2013

CLASSIFICATION

Defense Highway 100: 2 Over/under STRAHNET | Parallel Structure 101: No || bridge exists
Direction of Traffic 102: 2 2-way traffic | Temporary Structure 103: Unknown (NBI)
Highway System 104: 1 On the NHS | NBIS Length 112: Long Enough
Toll Facility 20: 3 On free road | Functional Class 26: 12 Urban Fwy/Expwy
Historical Significance 37: 5 Not eligible for NRHP
Owner 22: 01 State Highway Agency
Custodian 21: 01 State Highway Agency

STRUCTURE TYPE AND MATERIALS

Number of Approach Spans 46: 0 | Number of Spans Main Unit 45: 1
Main Span Material/Design 43A/B:
3 Steel | 07 Frame
Deck Type 107: 1 Concrete-Cast-in-Place
Wearing Surface 108A: 6 Bituminous
Membrane 108B: 2 Preformed Fabric
Deck Protection 108C: 1 Epoxy Coated Reinforci

CONDITION

Deck 58: 6 Satisfactory | Super 59: 6 Satisfactory | 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: HS23.2 | Operating Rating 64: HS38.6
Design Load 31: 5 MS 18 (HS 20) | Posting 70: 5 At/Above Legal Loads
Posting status 41: R Posted for Non-Load

AGE AND SERVICE

Year Built 27: 1937 | Year Reconstructed 106: 1994
Type of Service on 42A: 1 Highway
Type of Service under 42B: 1 Highway
Lanes on 28A: 4 | Lanes Under 28B: 4 | Detour Length 19: 1.0 mi
ADT 29: 55,400 | Truck ADT 109: 1 % | Year of ADT 30: 2009

APPRAISAL

Bridge Rail 36A: 1 Meets Standards | Approach Rail 36C: 0 Substandard
Transition 36B: 0 Substandard | Approach Rail Ends 36D: 1 Meets Standards
Str. Evaluation 67: 6 | Deck Geometry 68: 3 Intolerable - Correct
Underclearance, Vertical and Horizontal 69: 3 Intolerable - Correct
Waterway Adequacy 71: N Not applicable | Approach Alignment 72: 8 Equal Desirable Crit
Scour Critical 113: N Not Over Waterway

GEOMETRIC DATA

Length Max Span 48: 66.5 ft | Structure Length 49: 67.3 ft
Curb/Sdwlk Wdth L 50A: 0.0 ft | Curb/Sidewalk Width R 50B: 0.0 ft
Width Curb to Curb 51: 56.1 ft | Width Out to Out 52: 65.0 ft
Approach Roadway Width 32: 56.1 ft (w/ shoulders) | Median 33: 2 Closed Med w/o Barrier
Deck Area: 4,371.9 sq. ft
Skew 34: 40.00 ° | Structure Flared 35: 0 No flare
Minimum Vertical Clearance Over Bridge 53: 328.1 ft
Minimum Vertical Underclearance Reference 54A: H Hwy beneath struct
Minimum Vertical Underclearance 54B: 12.4 ft
Minimum Lateral Underclearance Reference R 55A: H Hwy beneath struct
Minimum Lateral Undrclearance R 55: 1.0 ft
Minimum Lateral Undrclearance L 56: 0.0 ft

PROPOSED IMPROVEMENTS

Bridge Cost 94: $ 1,000 | Type of Work 75: 38 Other Structural
Roadway Cost 95: $ 1,000 | Length of Improvment 76: 0.3 ft
Total Cost 96: $ 2,000 | Future ADT 114: 26,250
Year of Cost Estimate 97: 2000 | Year of Future ADT 115: 2019

NAVIGATION DATA

Navigation Control 38: N 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:

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	14/3	P Conc Deck/AC Ovly	(SF)	4,372	0 %	0	100 %	4,372	0 %	0	0 %	0	0 %	0
0	107/3	Paint Stl Opn Girder	(LF)	384	100 %	384	0 %	0	0 %	0	0 %	0	0 %	0
0	202/3	Paint Stl Column	(EA)	12	100 %	12	0 %	0	0 %	0	0 %	0	0 %	0
0	212/3	Reinforced Conc wing	(LF)	156	100 %	156	0 %	0	0 %	0	0 %	0	0 %	0
0	215/3	R/Conc Abutment	(LF)	170	0 %	0	100 %	170	0 %	0	0 %	0	0 %	0
0	301/3	Pourable Joint Seal	(LF)	147	100 %	147	0 %	0	0 %	0	0 %	0	0 %	0

Structure Inventory and Appraisal Sheet (English Units)

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	330/3	Metal Rail Uncoated	(LF)	203	100 %	203	0 %	0	0 %	0	0 %	0	0 %	0
0	331/3	Conc Bridge Railing	(LF)	288	100 %	288	0 %	0	0 %	0	0 %	0	0 %	0
0	363/3	Section Loss SmFlag	(EA)	1	0 %	0	100 %	1	0 %	0	0 %	0	0 %	0

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

Photo # 1:
View southbound.

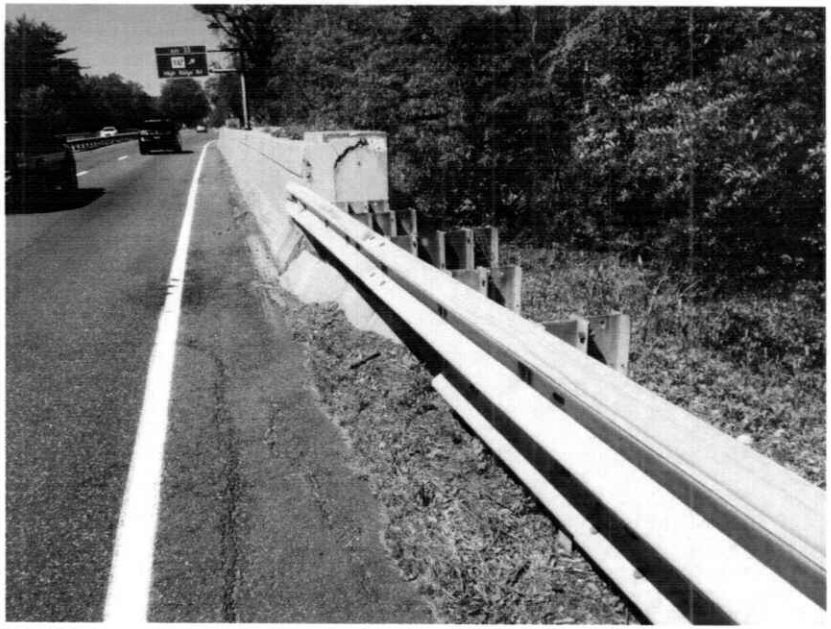


Photo # 2:
Southbound approach metal beam rail.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

Photo # 3:
Southbound approach wearing surface.

Photo # 4:
East deck end, southbound.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

Photo # 5:
Southbound wearing surface.

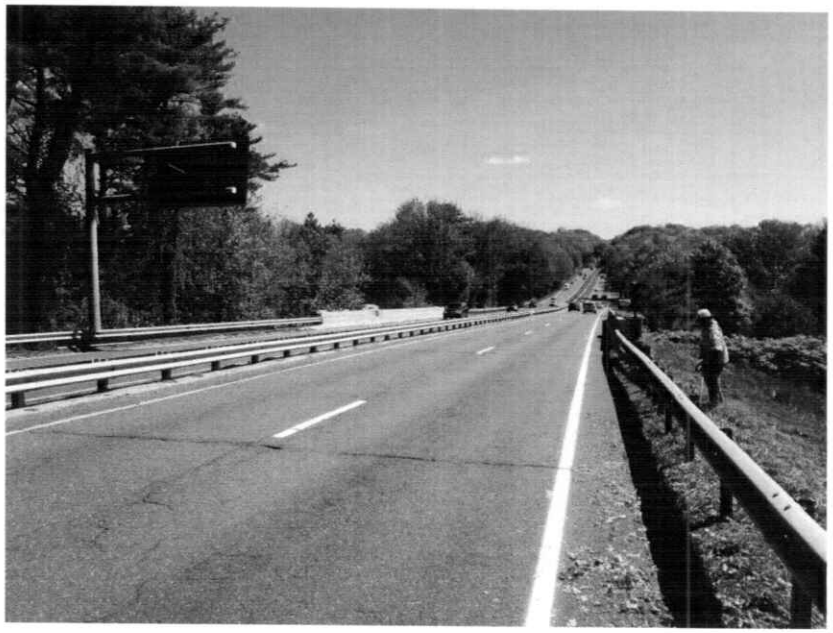


Photo # 6:
View northbound.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

Photo # 7:
Northbound approach metal beam rail.

Photo # 8:
Northbound approach wearing surface.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

Photo # 9:
West deck end, northbound.

Photo # 10:
Northbound wearing surface.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

Photo # 11:
East deck end, northbound.

Photo # 12:
View of posting sign on south approach.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

Photo # 13:
South elevation.

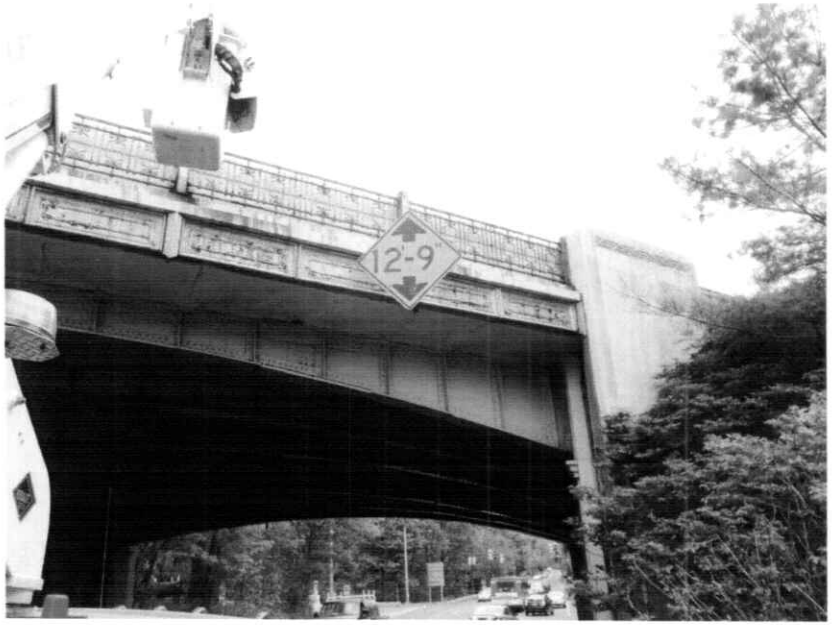


Photo # 14:
View of posting sign on structure.{South elevation}

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

Photo # 15:
West abutment.

Photo # 16:
East abutment.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

Photo # 17:
Superstructure and deck underside.

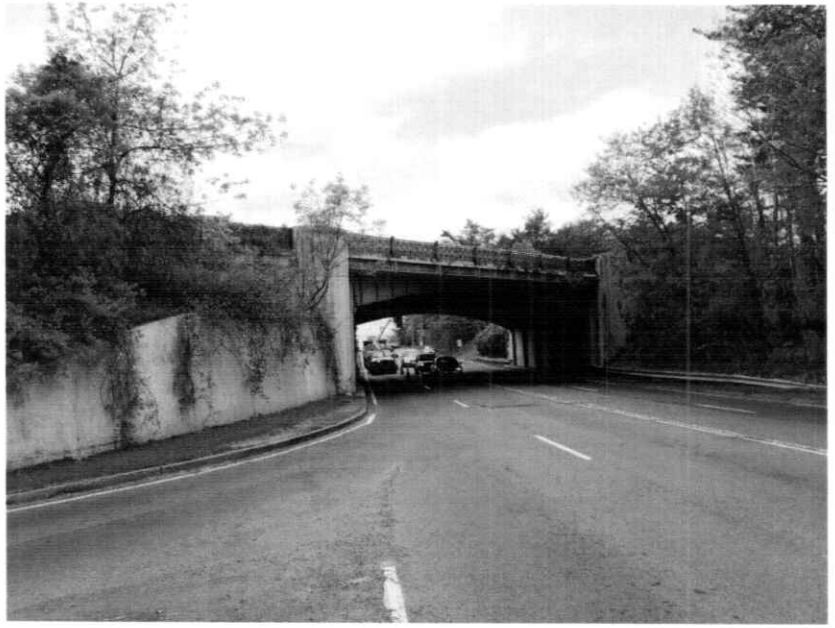


Photo # 18:
North elevation.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

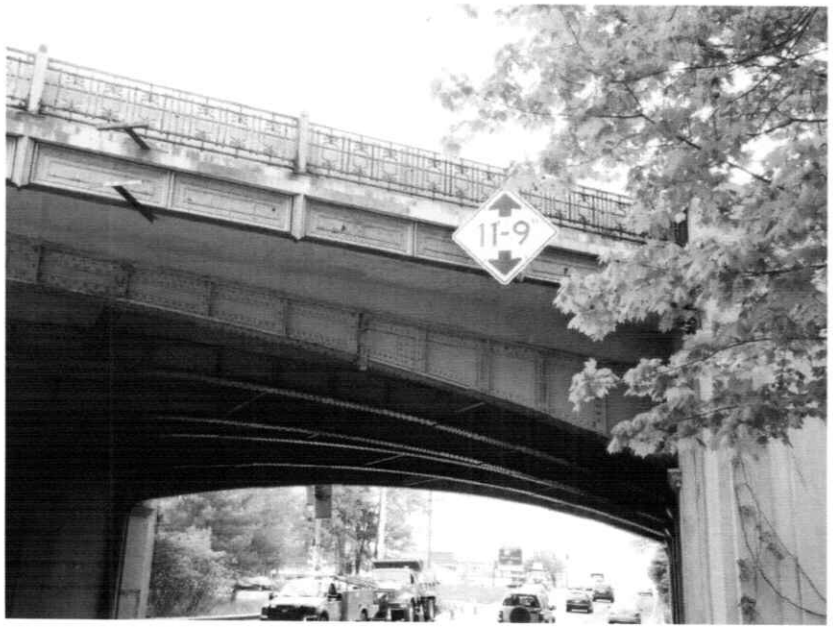


Photo # 19:
View of posting sign on the north elevation.

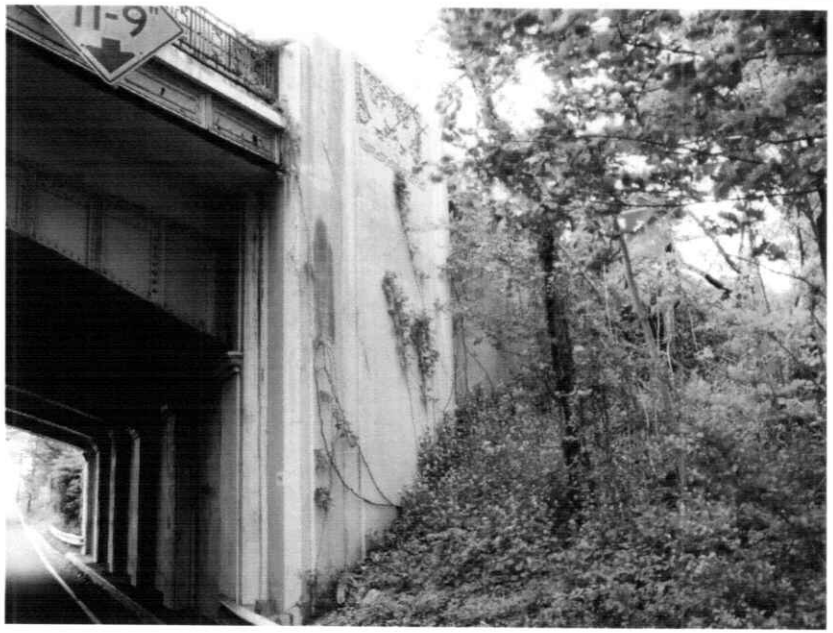


Photo # 20:
Northwest wingwall.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

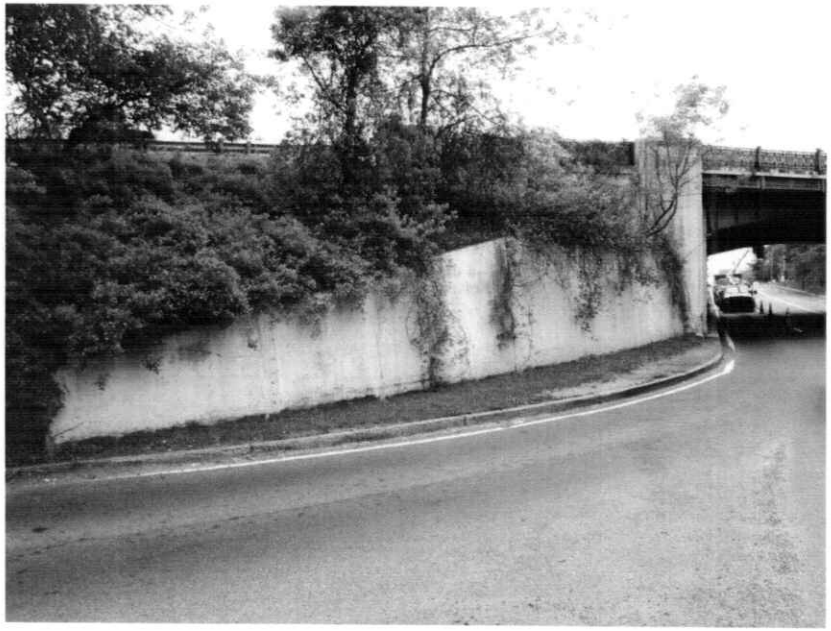


Photo # 21:
Northeast wingwall.

Photo # 22:
Typical rust conditions on vertical support posts and base plates.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

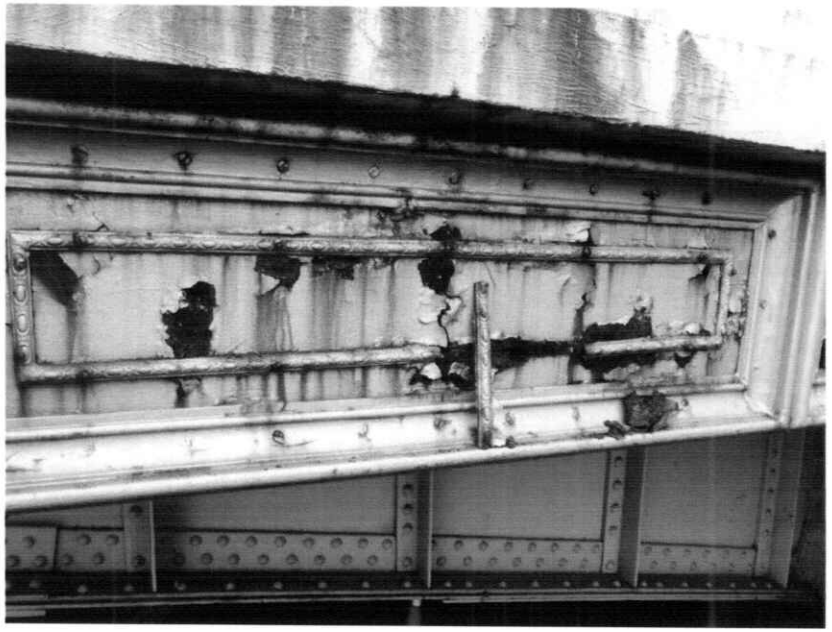


Photo # 23:
Typical rust conditions on ornamental steel fascia plates.

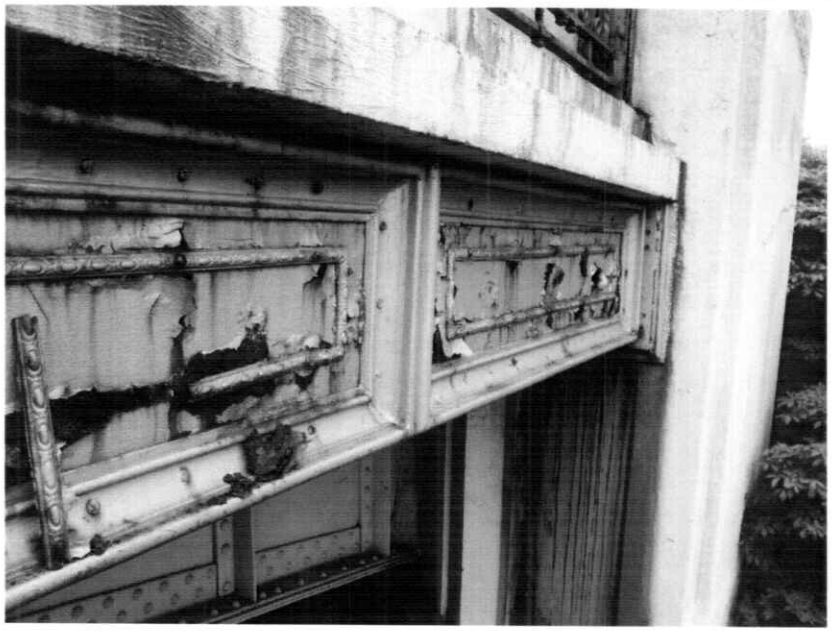


Photo # 24:
Typical rust conditions on ornamental steel fascia plates.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

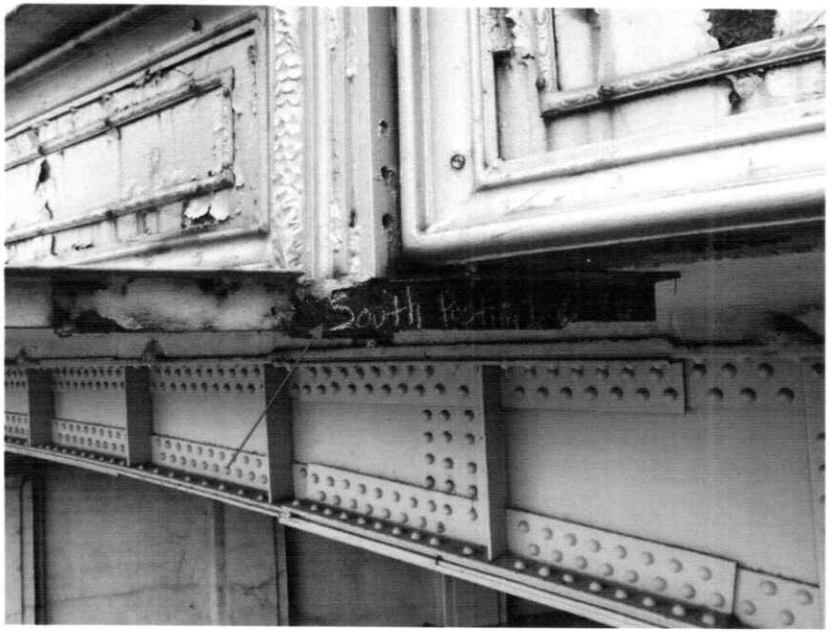


Photo # 25:
View of rust condition on the vertical posting sign support at the south elevation.

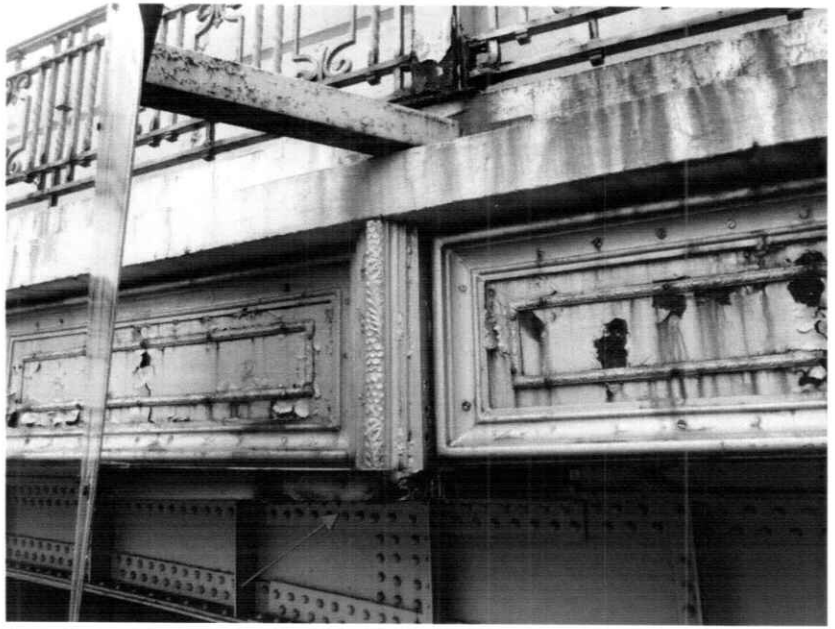


Photo # 26:
Overview of vertical posting sign support at the south elevation.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

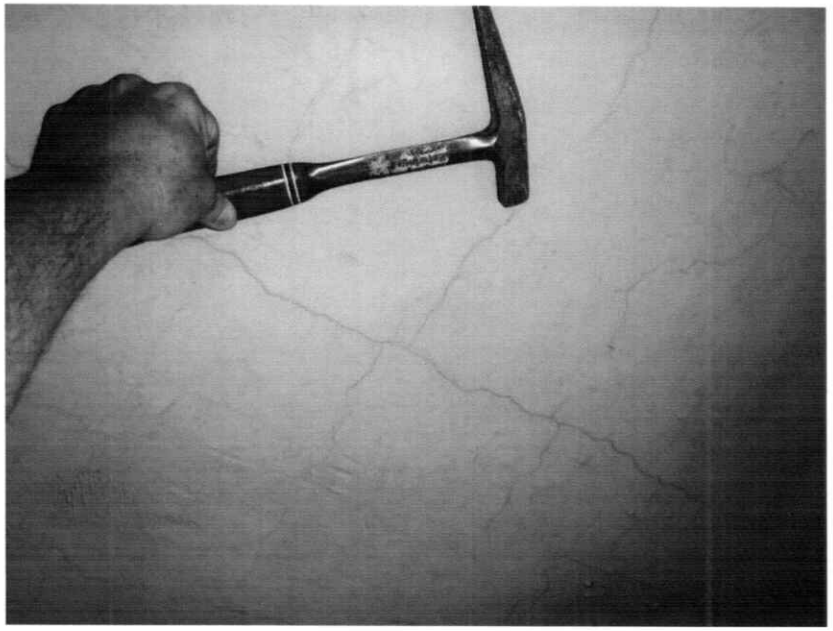


Photo # 27:
View of wide pattern map cracking, typical in random bays on deck underside.

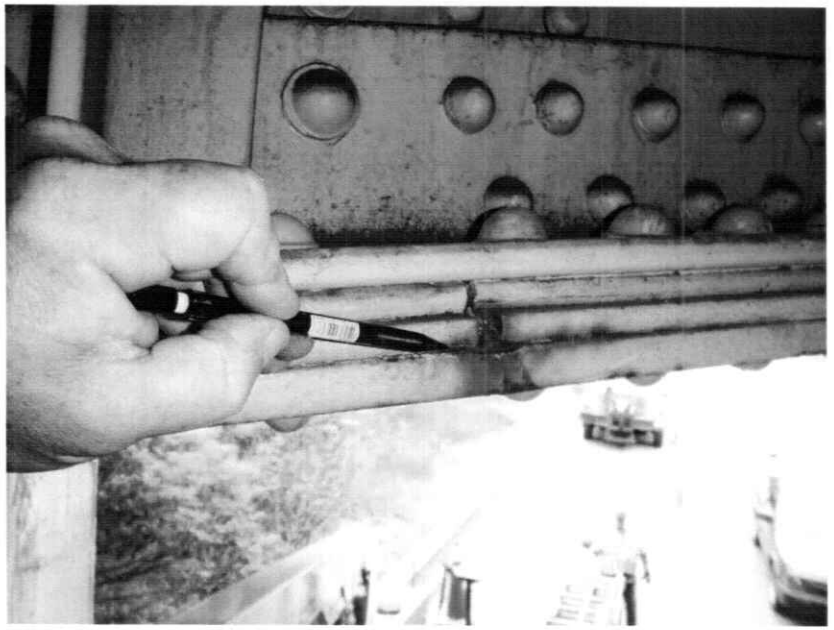


Photo # 28:
Typical laminar rust build-up on random coverplate connections.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

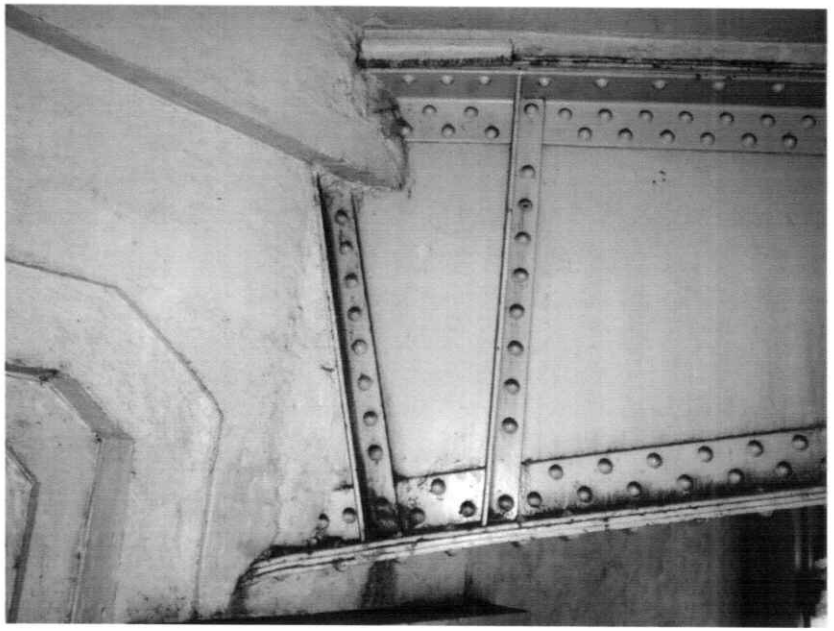


Photo # 29:
Typical girder into backwall.

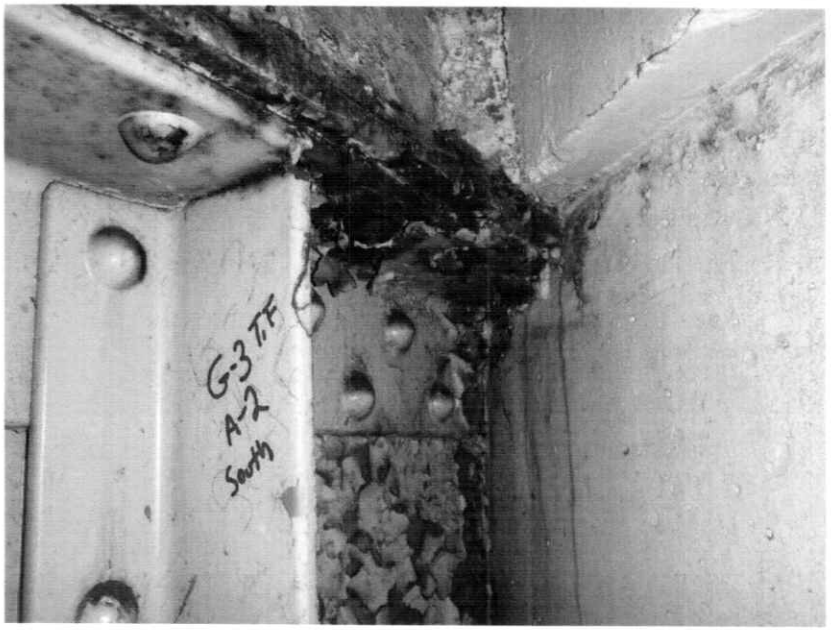


Photo # 30:
View of rust condition on girder # 3 top flange, south face at the east abutment.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

Photo # 31:
View of rust condition on girder # 3 bottom flange, south face at the east abutment.

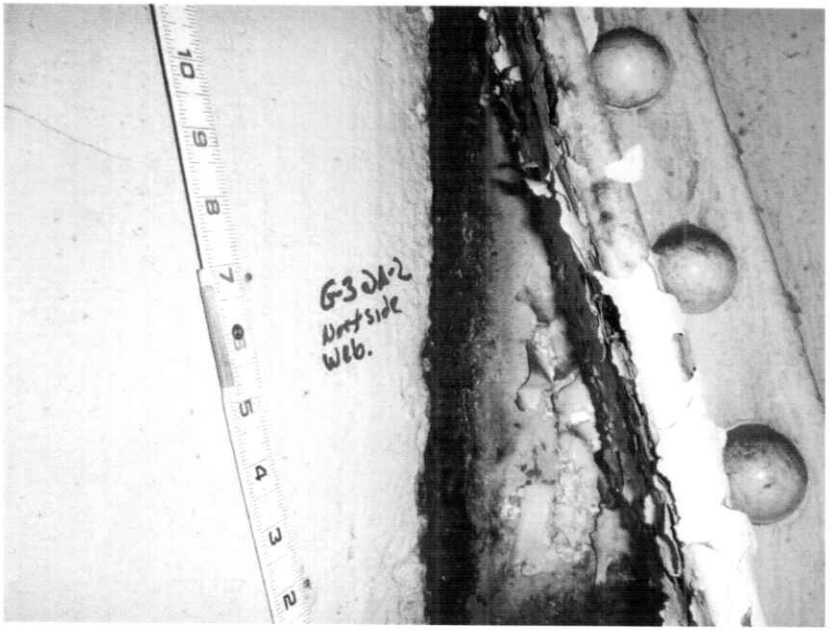


Photo # 32:
Girder # 3 north face of web at the east abutment.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

Photo # 33:
View of posting sign on the north approach.

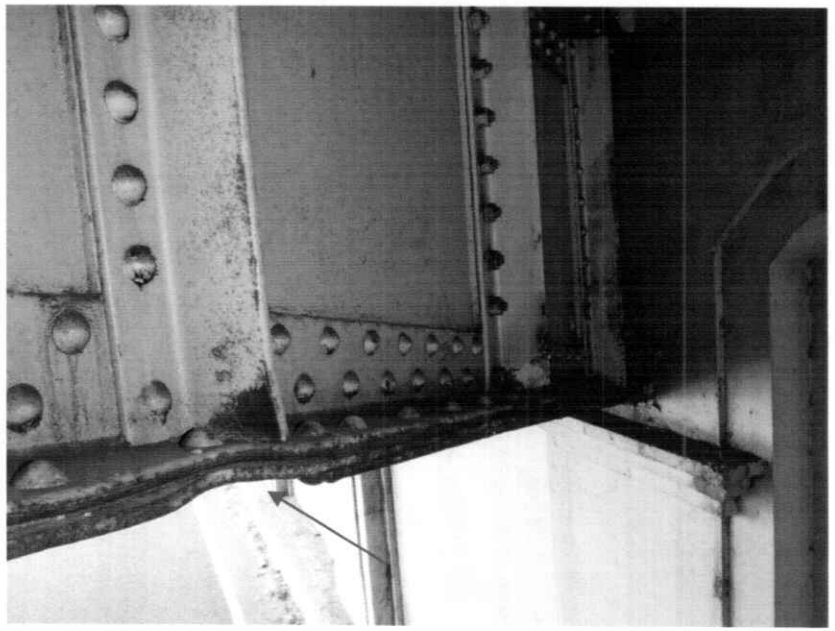
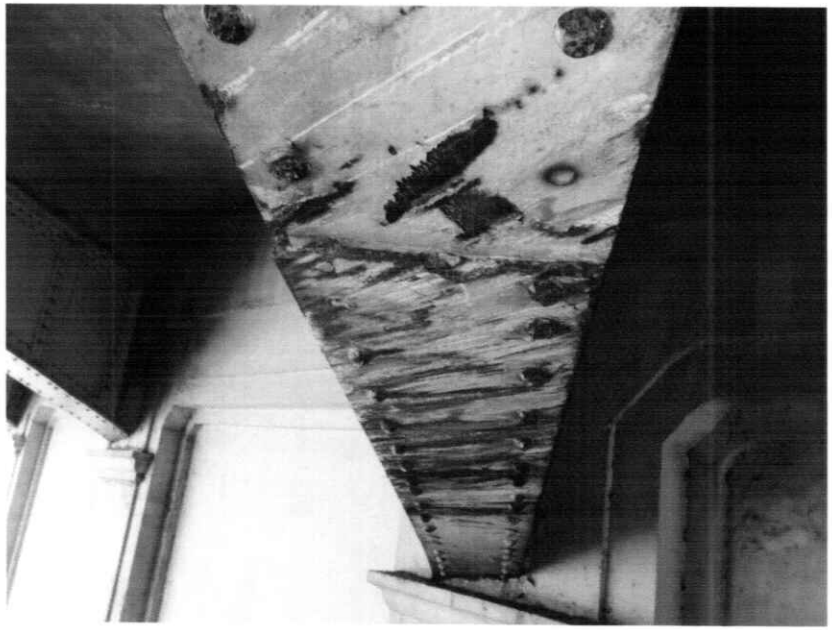


Photo # 34:
View of previous collision damage to the north face of girder # 3 adjacent to the west abutment.

Bridge No.	00706	**Inspected by:**	Andrew Ferrara
Town:	Stamford	**Inspected by:**	Mike Holdridge
Feature Carried:	Rte-15	**Date Inspected:**	05/11/2011
Feature Crossed:	Rte-137	**Project No.:**	

	**Double-click here to insert picture**
Photo # 35: **View of previous collision damage to the bottom flange of girder # 3 adjacent to the west abutment**	**Photo # : Description:**