



State of New Jersey
NEW JERSEY DEPARTMENT OF TRANSPORTATION
1035 PARKWAY AVENUE
P.O. Box 600
TRENTON, NEW JERSEY 08625-0600

BRIDGE RE-EVALUATION SURVEY REPORT

STRUCTURE NO. 2XXX-XXX
ROUTE US 22 OVER STONY BROOK
BOROUGH OF NORTH PLAINFIELD
SOMERSET COUNTY

SAMPLE REPORT
(FOR GUIDANCE ONLY)

14TH CYCLE
June 20, 2005

**NOTE: This Bridge Re-evaluation Report
shall be filed immediately after the
13TH Cycle Inspection Report.**

Prepared By

ABC Consultant

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**N.J.D.O.T. - STRUCTURAL EVALUATION
RE-EVALUATION BRIDGE SURVEY REPORT**

CYCLE NO. 14

STRUCTURAL DATA:

Bridge No.:	2XXX-XXX	Year Built:	1929	Widened/ Rehab:	1938
Route No.:	22	Length:	45'	Width:	92.5'
Mile Point:	44.620	Date of this Eval.:	6/20/2005		
Name:	Route US 22 over Stony Brook	By:	ABC Consultant		
Structure Type:	Single span, simply supported, concrete encased rolled steel multi- stringers	Date of Previous Eval.:	5/14/2003		
		By:	XYZ Consultant		
		Underwater Inspection	Not Required		
		Scour Critical	Yes		
		Special Equipment Used	None		

OVERALL CONDITION: Fair

WORK DONE: None

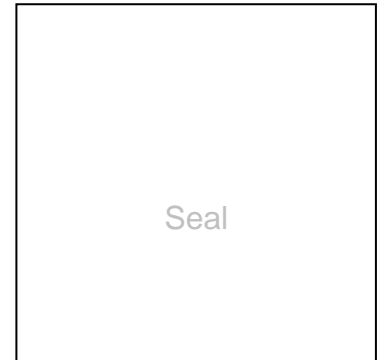
Inspection Team Leader: Rajesh C. Patel

Initials: _____

Certifying Engineer: James Lane, P.E.

NJ P.E. Number: GE02859100

I certify that this report is an accurate description of the subject structure, to the extent determinable by visual inspection and testing performed.



Signature: _____

Date: _____

CONTROLLING RATINGS: (From 11th Cycle Report)

Computer Program Used: Penn DOT BAR 7 (Version 7.8)
 Based on the Load Factor method of analysis, the following load ratings have been computed:

		<u>Truck Type (Tons)</u>			
<u>Controlling Member</u>	<u>Rating Type</u>	<u>HS-20</u> <u>(36)</u>	<u>3</u> <u>(25)</u>	<u>3S2</u> <u>(40)</u>	<u>3-3</u> <u>(40)</u>
Interior Stringer (1938)	Inventory Rating	33	29	46	57
	Operating Rating	55	49	77	96

CONCLUSIONS & RECOMMENDATIONS:

The overall condition of the structure is fair due to the superstructure and substructure.

The approach roadway condition has been upgraded from satisfactory to good due to minor defects such as cracking in the pavement.

The superstructure is in fair condition due to the large encasement spalls with exposed severely rusted bottom flanges with < 1/16" section loss typical and up to 1/8" section loss to the majority of the bottom flange of stringer 15 from south.

The substructure is in fair condition due to the random medium and wide cracks, moderate and severe scaling, and unsound concrete at the abutment breastwalls, bridge seats, and wingwalls and the west abutment backwall.

Since the previous inspection, the structure shows no further deterioration.

Based on the Bridge Scour Evaluation Program, Stage II results, the structure is determined to be scour critical (Item 113 = 3). This inspection revealed footing exposure at the south end of the west abutment for 6 feet. The footing was detected beneath soil along the southwest wingwall for 2 feet. The grout bags are exposed at the north end of the west abutment and are undermined up to 4' laterally. The grout bags are undermined up to 2.5' laterally near mid span of the east abutment. The streambed material consists of bedrock, boulders, cobbles, gravel, and some sand.

We recommend installing scour countermeasures recommended in Stage II Scour Evaluation Report.

Install a flexible gabion mattress extending from the face of abutments across the entire bridge opening, placed level with the existing streambed to a depth of 1 foot.

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

Gabion Mattress (92.5' x 42')*

\$ 281,000**

* Scour Countermeasure cost is from the latest information from NJDOT.

** Code Scour Countermeasure cost in Item FJ and Item 94.

In the interim, until the **Scour Countermeasure are installed**, we recommend that the following Priority 2 repairs be made to retard further deterioration, preserve the structural integrity of the bridge, improve safety and extend its useful life:

Fill the severely eroded area at the north side of east approach embankment with suitable fill material, place rip rap and construct 30 feet long curb at the northeast approach to direct water runoff to a flatter slope on a Priority 2 repair basis (see [Photo Nos.14-04 to 14-06](#) and refer to [Priority Repair PR2_01 and NJDOT Memorandum dated 7/5/2005](#)).

Note: The structure should be inspected for scour damage after significant storm events.

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

SI&A AND PONTIS SHEETS:

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Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

SI&A AND PONTIS SHEETS:

Please remove this placeholder after you insert the SI&A sheet

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

Rated By: GNS Date: 3/10/99 Checked BY: MES Date: 4/7/99

SUMMARY OF RATING

The Load Factor and Working Stress Ratings, computed in the 1st. Cycle and updated in the 11th cycle report in accordance with the FHWA directive dated November 1993 and AASHTO Manual for Condition Evaluation of Bridges, 1994, as modified by Section 1.42A.2 of the New Jersey Department of Transportation Design Manual, Bridges and Structures, are as follows:

Computer Program Used: PennDOT BAR 7 (Version 7.8)

PERCENT(%) SECTION LOSSES: < 1/16" section loss typical and up to 1/8" **field measured** section loss to the majority of the bottom flange of stringer S15.

Allowable Stresses (Psi)

<u>Material</u>	<u>Compressive Strength f 'c</u>	<u>Yield</u>	<u>Inventory</u>	<u>Operating</u>
Concrete	3,000	---	1,200	1,650
Reinforcing Steel	---	40,000	18,000	25,000
Structural Steel (1938)	---	33,000	18,000	24,500
Structural Steel(1926)	---	33,000	16,500	22,500

Rating (Tons)

<u>Member</u>	<u>Truck Type (Tons)</u>	<u>Load Factor</u>		<u>Working Stress</u>	
		<u>Inventory</u>	<u>Operating</u>	<u>Inventory</u>	<u>Operating</u>
	Type HS-20 (36T)	33	55	24	49
Stringer 14 From * South (27WF154-1938)	Type 3 (25T)	29	49	21	44
	Type 3S2 (40T)	46	77	33	68
	Type 3-3 (40T)	57	96	42	85

*Controlling Member

Notes:

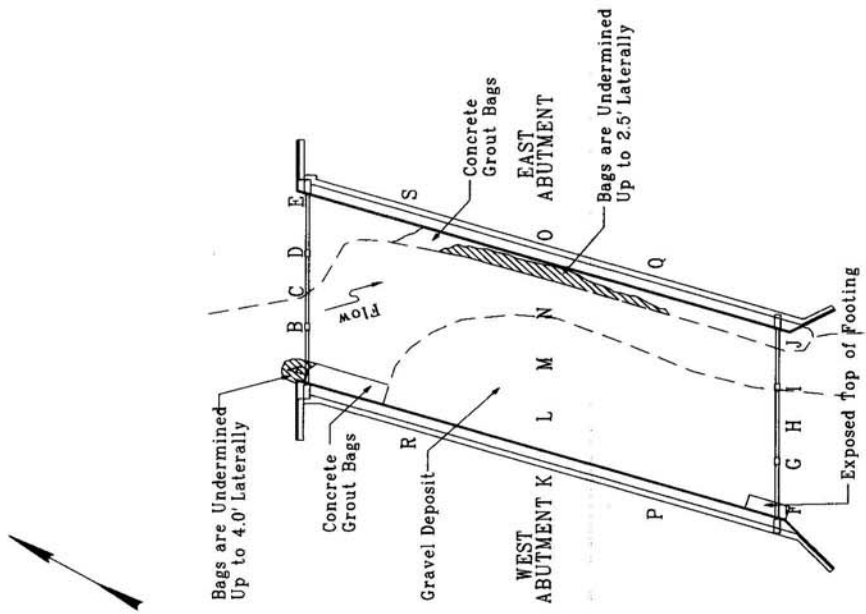
1. Load factor ratings are governed by moment overload provisions at midspan.
2. Ratings have been updated in the 11th cycle report based on non-composite section due to the absence of shear connectors, per NJDOT policy.
3. Updated ratings to reflect additional dead load of deck overlay placed since the 10th cycle inspection and field measured section losses.

Note: List summary of all members rated from previous cycle if available

POINT	LOCATION	BASELINE		CYCLE 14	
		CYCLE 4		JUNE 2005	
		MAY 1985	WATER DEPTH	MAY 1985	WATER DEPTH
A	WEST ABUTMENT	4'-0"	-	5'-9"	-
B	1/4 POINT	-	-	6'-10"	0'-9"
C	MIDSPAN	7'-0"	0'-6"	5'-3"	-
D	1/4 POINT	-	-	4'-1"	-
E	EAST ABUTMENT	4'-0"	-	2'-4"	-
F	WEST ABUTMENT	5'-11"	-	6'-2"	-
G	1/4 POINT	-	-	5'-3"	-
H	MIDSPAN	8'-8"	-	5'-7"	-
I	1/4 POINT	-	-	8'-3"	1'-1"
J	EAST ABUTMENT	8'-4"	1'-3"	8'-4"	-
K	1/4 WEST ABUTMENT	-	-	5'-1"	-
L	1/4 POINT	-	-	4'-8"	-
M	1/4 MIDSPAN	-	-	5'-7"	-
N	1/4 POINT	-	-	7'-3"	0'-1"
O	1/4 EAST ABUTMENT	-	-	6'-0"	-
P	1/4 POINT W. ABUT.	-	-	5'-2"	-
Q	1/4 POINT E. ABUT.	-	-	6'-0"	-
R	1/4 POINT W. ABUT.	-	-	5'-7"	-
S	1/4 POINT E. ABUT.	-	-	5'-11"	-

NOTES:

1. The clear dimensions given above are referenced from the bottom of the beam at the fascia to the streambed.
2. The water depth dimensions are measured from the water surface (at the time of the inspection) to the streambed.
3. Work this sheet with streambed cross section sheets.



PLAN AND SOUNDING DATA

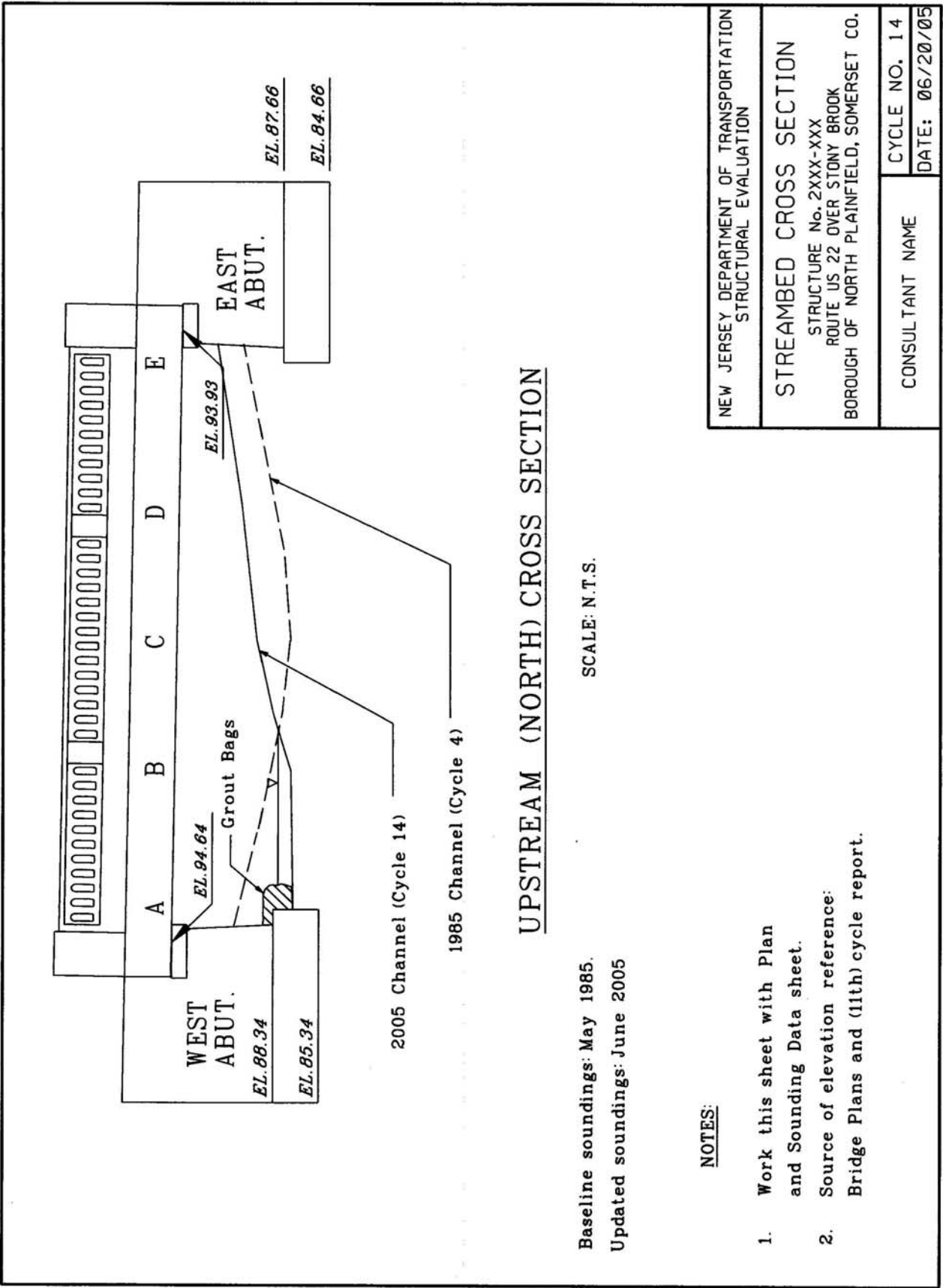
SCALE: N.T.S.

Baseline soundings: May 1985.
Updated soundings: June 2005.

NEW JERSEY DEPARTMENT OF TRANSPORTATION
STRUCTURAL EVALUATION

PLAN AND SOUNDING DATA
STRUCTURE No. 2XXX-XXX
ROUTE US 22 OVER STONY BROOK
BOROUGH OF NORTH PLAINFIELD, SOMERSET CO.

CONSULTANT NAME
CYCLE NO. 14
DATE: 06/20/05



Baseline soundings: May 1985.
 Updated soundings: June 2005

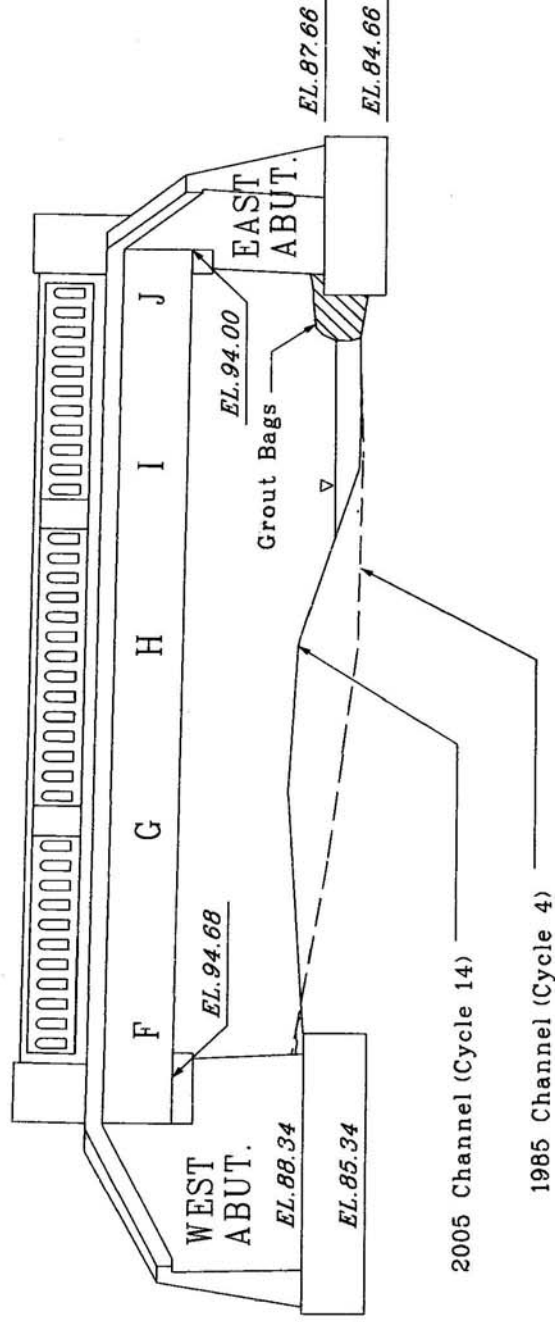
SCALE: N.T.S.

UPSTREAM (NORTH) CROSS SECTION

NOTES:

1. Work this sheet with Plan and Sounding Data sheet.
2. Source of elevation reference: Bridge Plans and (11th) cycle report.

NEW JERSEY DEPARTMENT OF TRANSPORTATION STRUCTURAL EVALUATION	
STREAMBED CROSS SECTION STRUCTURE No. 2XXX-XXX ROUTE US 22 OVER STONY BROOK BOROUGH OF NORTH PLAINFIELD, SOMERSET CO.	
CONSULTANT NAME	CYCLE NO. 14
	DATE: 06/20/05



DOWNSTREAM (SOUTH) CROSS SECTION

SCALE: N.T.S.

Baseline soundings: May 1985.
 Updated soundings: June 2005

NOTES:

1. Work this sheet with Plan and Sounding Data sheet.
2. Source of elevation reference: Bridge Plans and (11th) cycle report.

NEW JERSEY DEPARTMENT OF TRANSPORTATION STRUCTURAL EVALUATION	
STREAMBED CROSS SECTION STRUCTURE No. 2XXX-XXX ROUTE US 22 OVER STONY BROOK BOROUGH OF NORTH PLAINFIELD, SOMERSET CO.	
CONSULTANT NAME	CYCLE NO. 14
	DATE: 06/20/05

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05



Photo No: 14-01

Location: North elevation, looking South.

Description: General View.



Photo No: 14-02

Location: West approach roadway, looking East.

Description: General View.



Photo No: 14-03

Location:	Superstructure, looking North.
Description:	General view of superstructure. Note: Debris in the channel.



Photo No: 14-04

Location:	Northeast wingwall, looking East.
Description:	Severe erosion behind northeast wingwall (20 feet long x 10 feet wide x 2 feet deep).

Structure No.: 2XXX-XXX

Route: 22

Cycle No.: 14

Name: Route US 22 over Stony Brook

Insp. Date: 6/20/05 & 7/9/05



Photo No: 14-05

Location:	Northeast wingwall, looking South.
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Description:	Severe erosion at end of Northeast wingwall area of (3 feet x 3 feet) undermining bituminous concrete at East approach, North sidewalk up to (1 foot lateral x 2 feet wide x 1 foot 8 inches deep).
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Photo No: 14-06

Location:	East approach north side, looking West.
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Description:	Lack of curb at East approach on north side. Note: Area of erosion location at the Northeast wingwall.
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Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05



Photo No: 14-07

Location:	Northeast guide rail, looking Southwest.
Description:	Missing anchor bolt nuts at the rear face.



Photo No: 14-08

Location:	Northeast approach end terminal, looking West.
Description:	Collision damage to guide rail end terminal.

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

NEW JERSEY DEPARTMENT OF TRANSPORTATION
STRUCTURAL EVALUATION
 BRIDGE EVALUATION CHECK LIST
 (FIELD NOTES)

Inspectors: Harjit Bal Name: Route US 22 over Stony Brook
 Crew Chief: Rajesh C. Patel
 Temperature: 60° F (6/20/05) Weather: Sunny (both days)
74° F (7/09/05) Special Equipment Used: None

RATINGS

- N Not applicable
- 9 Excellent Condition
- 8 Very Good Condition – no problems noted.
- 7 Good Condition – some minor problems.
- 6 Satisfactory Condition – some minor deterioration of structural elements.
- 5 Fair Condition – minor section loss of primary structural elements.**
- 4 Poor Condition – advance section loss of primary structural elements.
- 3 Serious Condition – seriously deteriorated primary structural elements.
- 2 Critical Condition – facility should be closed until repairs are made.
- 1 Imminent Failure Condition – facility closed. Study of repairs is feasible.
- 0 Failed Condition – facility is closed and beyond repair.

GPS COORDINATES
@ Southwest corner
40° 37' 33.06" Lat.
74° 26' 22.68" Long.

GENERAL

Type of Bridge: Single span, simply supported, concrete encased rolled steel multi-stringers

Year Built: 1929 Year of Widening / Major Repairs: 1938

No. of Lanes: On 6 Under Waterway

Vertical Clearances: Over Deck: Unlimited

Minimum Under: N/A

Maximum Under (Item 10): N/A

Horizontal Underclearance: Total Horizontal Clearance: N/A

Right N/A

Left N/A

Overall Condition of Structure: Fair due to superstructure and substructure.

Work Done: None

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

DECK

SI&A Item 58 Condition Rating: 6

SPAN # SINGLE

RATING	COMPONENT	REMARKS
6	Wearing Surface / Top of Deck (Bituminous Concrete)	
6	Underside of Deck (Concrete)	
7	Median (NJ Barrier)	
7	Curbs (Concrete with Steel Angle)	South: Reveal: 5" North: Reveal: 2"
6	Sidewalks / Safetywalks (Concrete)	
6	Parapets/ Balustrades (Concrete)	
7	Railings / Fencing (W beam)	
7	Deck Joints / Filler Material	
N	Drains and Scuppers	None
N	Light Stands	None
7	Utilities	(1) 24" diameter utility conduit in bay 1.
N	Others	N/A

**Additional
Remarks:**

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

APPROACHES

SI&A Item BA Rating: 7

SI&A Item 72 Rating: 8

APPROACH WEST

RATING	COMPONENT	REMARKS
7	Approach Pavement (Bituminous Concrete)	
7	Approach Shoulder (Bituminous Concrete)	Eastbound: None delineated on right side.
	Approach Roadway Vertical and Horizontal Alignment	Vertical: Slight downgrade on to the bridge. Horizontal: Tangent.
6	Guide Rail Condition (W beam)	
7	Sidewalks (Bituminous Concrete)	North side only:
5	Curbs (Concrete)	South: Large spall adjacent to the bridge curb and at 5 ft from the bridge (9 SF). 5 ft section of curb missing at the Southwest corner. 6 ft section of curb severely spalled and deteriorated at 15 ft from bridge.
8	Utilities	Utility poles on each side and a fiber optic manhole on the North embankment.
7	Approach Roadway Embankment	Stabilized by wingwalls. Used car lot at the end of the Northwest corner.
N	Others	N/A

Additional Remarks:

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

APPROACHES

SI&A Item BA Rating: 7

SI&A Item 72 Rating: 8

APPROACH EAST

RATING	COMPONENT	REMARKS
7	Approach Pavement (Bituminous Concrete)	
N	Approach Shoulder	None
	Approach Roadway Vertical and Horizontal Alignment	Vertical: Slight upgrade on to the bridge. Horizontal: Tangent.
4	Guide Rail Condition (W beam)	North: Damaged end terminal and several posts missing nuts on rear face (Photo Nos. 14-07 and 14-08).
5	Sidewalks	North: Bituminous Concrete with undermining at end of wingwall (1 foot lateral x 2 feet wide x 1 foot 8 inches deep) under asphalt sidewalk. South: Dirt & gravel.
5	Curbs	North: Lack of curb. South: Misalignment of 3" adjacent to the structure at the Southeast corner with minor scaling.
8	Utilities	Utility poles on each side and a fiber optic manhole on the North embankment.
4	Approach Roadway Embankment	North: Severe erosion (13 CY) beyond the wingwall (Photo No. 14-05).
8	Others Median (NJ Barrier)	

Additional Remarks:

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

SUPERSTRUCTURE

SI&A Item 59 Condition Rating: 5

SPAN # SINGLE

RATING	COMPONENT	REMARKS
5	Concrete Encased Rolled Steel Stringers (16 Nos., #’d South to North)	A few of the stringers exhibits fine to wide longitudinal cracks along the top flange haunch. Large spalls at the end of most stringers exposing a severely rusted (< 1/16" section loss) bottom flange except for stringers S12, S13 and S16 (100 SF total). Stringers S14 and S15 exhibit extensive longitudinal cracks with efflorescence with spalling along the majority of the bottom flange of stringer S15 exposing severely rusted steel with up to 1/8" section loss. All stringers except for stringers S12, S13, and S16 exhibit fine to wide longitudinal cracks and unsound concrete (450 SF) to the bottom flange encasement.
5	Diaphragms / Cross Frames (Intermediate-Reinforced Concrete)	The diaphragms in bays 14 and 15 exhibit spalled and unsound concrete and fine cracks with efflorescence (20 SF) with exposed moderately rusted reinforcing steel throughout (rebuild). The diaphragm in bay 1 exhibits exposed moderately rusted reinforcing steel due to insufficient cover (no repair).
5	Bearings (Concrete Encased)	Most beam ends are spalled with exposed severely rusted (< 1/16" section loss) bearing plates except bearings 12, 13 and 16.
	Deflection and Vibration	None detected.
N	Others	N/A

Additional Remarks:

FATIGUE DETAILS

Estimated percentage of Large trucks in ADT = 4%

Category	Detail Description and Location
N	N/A

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

SUBSTRUCTURE

SI&A Item 60 Condition Rating: 5

WEST ABUTMENT

RATING	COMPONENT	REMARKS
6	Breastwall (Concrete)	
6	Backwall (Concrete)	
5	Bridge Seat (Concrete)	Unsound concrete and moderate scaling (4 SF) in bay 15 and beneath stringer S15. Medium full height vertical crack (1 LF) to the coping in bays 4 and 5. Random fine vertical cracks to coping. Heavy flood debris accumulation in each bay. One wide diagonal crack in bay 13 (3 LF).
7	Wingwalls / Retaining Walls (Concrete)	
7	Embankment / Slope Protection	Rip-rap slope protection along the south and north wingwall.
5	Others / Footings / Waterway Probing	There are grout bags along the breastwall. The grout bags are mostly covered with gravel and rock. The top of the footing is exposed at the South end (2 LF). The grout bags are exposed at the north end of the abutment and are undermined up to 4 ft laterally.

**Additional
Remarks:**

EAST ABUTMENT

RATING	COMPONENT	REMARKS
6	Breastwall (Concrete)	
6	Backwall (Concrete)	
5	Bridge Seat (Concrete)	Random cracks, moderate scaling, and unsound concrete (2 SF) beneath stringer S2 and in bays 14 and 15. Severe scaling and unsound concrete with exposed reinforcing steel (40 SF) from the north end up to stringer S14. Large spall at south end (2 SF).
5	Wingwalls / Retaining Walls (Concrete)	North: Severe erosion at the north side of wingwall (Photo Nos. 14-04 to 14-06). (10 ft wide x 2 ft deep x 20 ft long).
6	Embankment / Slope Protection	Rip-rap stone protection at the south end.
5	Others / Footings / Waterway Probing	There are grout bags along the full length of the breastwall. The grout bags are covered by gravel and rock at the north end. The grout bags are undermined up to 2.5 ft laterally near mid span.

**Additional
Remarks:**

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

SUBSTRUCTURE/SCOUR

SI&A Item 60 Condition Rating: 5

ABUTMENT WEST

RATING	COMPONENT	REMARKS
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COUNTERMEASURES

	Description	Grout bags along the breastwall.
6	Condition	The grout bags are exposed at the north end of the abutment and are undermined up to (4 ft laterally x 6 ft long x 6 inches deep); otherwise the grout bags appear stable.

PROBING/SCOUR

6	Findings	The grout bags are mostly covered with gravel and rock. The top of the footing is exposed at the south end for (2 LF).
	Changes Since Prior Inspection	Exposed footing at southwest corner covered with more sediment.
7	Debris	Flood debris on the bridge seats in each bay.

Repair Quantities: None

ABUTMENT EAST

RATING	COMPONENT	REMARKS
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COUNTERMEASURES

	Description	There are grout bags along the full length of the breastwall.
6	Condition	The grout bags are undermined up to (2.5 ft laterally x 3 ft long x 4 inches deep) near mid span under stringer S9, otherwise the grout bags appear stable.

PROBING/SCOUR

6	Findings	The grout bags are covered by gravel and rock at the north end. The grout bags are undermined up to 2.5 ft laterally near mid span.
	Changes Since Prior Inspection	No significant changes.
8	Debris	None.

Repair Quantities: None

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

WATERWAY/CHANNEL

SI&A Item No. 61 7 (Field)
 SI&A Item No. 71 5 (Stage II)
 Prioritization Category 1 (Stage I)
 Scour Sufficiency Rating 26.3 (Stage I)

RATING	COMPONENT	REMARKS
FLOW CONDITIONS		
	Direction	Flow is North to South.
	Magnitude	The bridge opening does not constrict the upstream channel. Both the upstream and downstream channel widths vary from 15 ft to 25 ft.
	Velocity	Low; 1 ft/sec.
EMBANKMENTS		
8	Upstream (North)	East: Heavy vegetation. West: Heavy vegetation, steep slope, and rock lined at the waterline. There is rip-rap along the wingwall and gabion 100 ft away.
7	Downstream (South)	East: Rip-rap and gabion slope protection. West: Steep slope with moderate erosion.
8	Channel Countermeasures	There are grout bags along each abutment breastwall and rip-rap and gabion slope protection along the southeast and northwest channel embankments.
CHANNEL MOVEMENT AND CHANGES		
	Horizontal Location	Meandering. The flow is through the west half of the opening due to an accumulation of boulders on both embankments and the downstream flow is parallel with the abutments. The grout bags at the Northwest corner protrude 6 ft into the channel and divert the flow to the East.
	Cross Section	The thalweg is located along the grout bags in front of the East abutment.
	Alignment	Low flow is skewed at approximately 45° from the Northwest to the Southeast for approximately 35 ft at the entrance due to an accumulation of boulders. At stringer S10 the flow is skewed slightly (5°) from the Northeast to the Southwest due to the grout bags at the East abutment and an accumulation of boulders along the South 78' of the West abutment.
	Changes Since Previous Inspection	No significant changes.
	Navigation Clearances	Not a navigable waterway.
	Waterway Opening	5.9 ft High x 42 ft Wide.
7	Other Streambed/Debris	Bedrock, boulders, cobbles, gravel and some sand.

Repair Quantities: None _____

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

HIGHWAY SAFETY

Coding of SI&A Item 36: 0000
 1: Good
 0: Not Good
 N: Not Applicable

RATING		COMPONENT	REMARKS
0		Bridge Railing	W-Beam guide rail (single thickness) 2'-8" high with steel posts (3 ft post spacing), substandard steel spacer blocks, and rub rail attached to the sidewalk. Not nested.
0	0	Transition to Bridge Railing	Continuous with steel post (3 ft post spacing), substandard steel spacer blocks, and rub rail. The spacing is adequate since there is 6 ft distance between the face of guide rail and the balustrade (5 ft of clear walkway). Not nested. Northwest and Southeast are trailing ends.
	1	Curb / Sidewalk Terminations	
0		Approach Guide Rails	Northeast: W-beam 37.5 ft long (3 posts with steel spacer blocks then timber). Northwest and Southeast: W beam with substandard steel spacer blocks 25 ft long (due to parking lot), (trailing ends). Southwest: W-beam with timber spacer blocks and posts, 31 ft long.
0		Approach Guide Rail End Terminals	Northeast: SRT Northwest (trailing end), and Southeast (trailing end): BCT Southwest: ET- 2000.

DECK GEOMETRY

SI&A Item 68 Rating: 5

COMPONENT	REMARKS
Bridge Cross Section	<p>Bridge roadway width is consistent with the approach roadway widths.</p> <p style="text-align: center;">CROSS SECTION LOOKING EAST</p> <p>Note: Include field measured curb height.</p>
Adequacy of Lane / Shoulder Widths	Six lanes, two-way divided traffic (Table 2C) Rail-to-Rail = 76' ADT = 62,423 (Year 2005), Adequate
Vertical Clearance over Deck	Unlimited.

*Posting for Load / Speed / Clearance Restrictions (Include a photo)	None.
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Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
 Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

CHAIN LINK FENCE

Coding of SI&A Item FN: N
 Coding of SI&A Item FO: N
 Coding of SI&A Item FP (in thousands) : ---

Warranted (Per Design Manual Section 23):	No	
If Yes: (#) Description:		
<u>Current Status of Fence & Sidewalk:</u>	<u>Left Side</u>	<u>Right Side</u>
a. Fence:	No	No
b. Sidewalk Width:	FT	FT
c. Total Height of fence above Curb/Sidewalk	FT	FT
d. Type of Fence: (per Design Manual Section 23)		
Action Recommended:		
Estimated Cost: \$ N/A		

Input By ABC
 Date 6/27/2005

Structure No.: 2XXX-XXX Route: 22 Cycle No.: 14
Name: Route US 22 over Stony Brook Insp. Date: 6/20/05 & 7/9/05

PRIORITY REPAIRS

The following Priority Letter(s) have been included for this structure:

The Priority Letters have been submitted as a separate PDF file.

PDF Filename(s):

[2XXXXXX_20050620cy14_PR2_01.pdf](#)

(Replace **2XXXXXX** with Bridge Number)