

Inspection Type: Routine



BRIDGE NO.04548

68940 - SIMSBURY
CLIMAX ROAD
over
NOD BROOK

Routine Inspection

09/17/2015

Inspected by: Team 2



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Form: Location

Inspection type: Routine

Inspection Date: 09/17/2015

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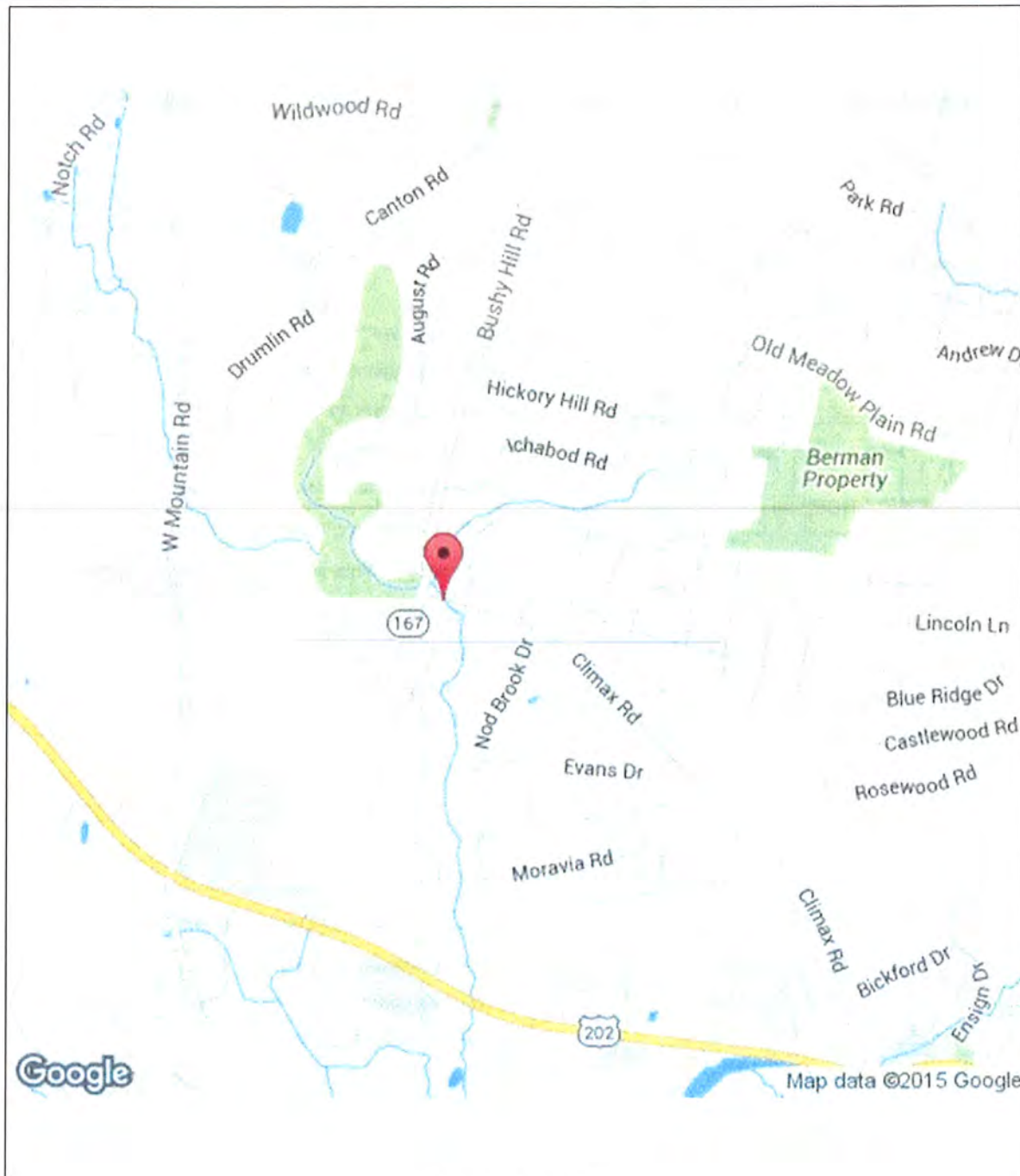
Bridge No: 04548

Town: SIMSBURY

Carried: CLIMAX ROAD

Crossed: NOD BROOK

Inventory Route: Non-NHS



Location Map # 1

Form: BRI-19, Rev. 2/15
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STRUCTURE INVENTORY & APPRAISAL

INSPECTION

Structurally Deficient Functionally Obsolete
Sufficiency Rating
(90) Inspection Date (91) Frequency
Indepth Insp Proposed next Indepth Year
Deck Survey Date Class
Access Flagman

	Frequency	Date	Type
Fracture	<input type="text"/>	<input type="text"/>	<input type="text"/>
Underwater	<input type="text"/>	<input type="text"/>	<input type="text"/>
Special	<input type="text"/>	<input type="text"/>	<input type="text"/>

IDENTIFICATION

Bridge Name
Town Code - Name
(5) Inventory Route
(A) Record Type
(B) Signing Prefix
(C) Level of Service
(D) Route Number
(E) Dir Suffix
(6A) Featured Intersected
(6B) Critical Facility Indicator
(7) Facility Carried
(9) Location
(11) Mile Post Miles
(16) Latitude Deg. Min. Sec.
(17) Longitude Deg. Min. Sec.
(98) Border Bridge
(A) State Code (B) Percent Responsibility %
(C) Border Town Name
(99) Border Bridge Structure No.

STRUCTURE TYPE & MATERIALS

(43) Structure Type, Main
A) Material
B) Design Type
(44) Structure Type, Approach
A) Material
B) Design Type
(45) Number of Spans, Main Unit
(46) Number of Approach Spans
(107) Deck Structure Type
(108) Wearing Surface/Protection Systems
A) Type of Wearing Surface
B) Type of Membrane
C) Type of Deck Protection
Substructure
A) Material
B) Design Type
Paint
Type
Year
Comment

GEOMETRIC DATA

(48) Length of Maximum Span ft.
(49) Structure Length ft.
(50) Curb or Sidewalk Widths
A) Left ft. in. B) Right ft. in.
(51) Bridge Roadway Width Curb to Curb ft. in.
(52) Deck Width, Out to Out ft. in.
(32) Approach Roadway Width ft.

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(33) Bridge Median
Deck Area sq. ft.
(34) Skew Angle deg.
(35) Structure Flared
(10) Inv. Rte. Min. Vert. Clearance ft. in.
(47) Inv. Rte. Total Horiz. Clr. ft. in.
Log Inv. Rte. Total Horiz. Clr. ft. in.
RLog Inv. Rte. Total Horiz. Clr. ft. in.
(53) Min. Vert. Clearance Over Bridge ft. in.
(54) Log-Min. Vert. Underclearance ref. ft. in.
(55) Min. Lat Underclearance on Right ref. ft. in.
(56) Min. Lat Underclearance on Left ft. in.

CONDITION

(58) Deck
(59) Superstructure
(60) Substructure
(61) Channel & Channel Protections
(62) Culverts
(36) Traffic Safety Features
A) Bridge Railings
B) Transitions
C) Approach Guardrail
D) Approach Guardrail Ends

WATERWAY

Drainage Basin Waterway
(38) Navigation Control
(39) Navigation Vertical Clearance ft.
(40) Navigation Horiz. Clr. ft.
(111) Pier/Abutment Navigation
(116) Vert-Lift Brg Nav Min ft. in.

AGE AND SERVICE

Year Built (106) Year Reconstructed
(42) Type of Service
A) On
B) Under
(28) Number of Lanes
A) On B) Under
(29) Average Daily Traffic
Is Above Half ADT?
(109) Percent Truck %
(30) Years of ADT
(19) Bypass, Detour Length Miles

APPRAISALS

(67) Structural Evaluation
(68) Deck Geometry
(69) Underclearances, Vert. & Horiz.
(71) Waterway Adequacy
(72) Approach Roadway Alignment
(113) Scour Critical

COMMENTS

2015- No Projects AES 10-2-15

CLASSIFICATION

(112) NBIS Bridge Length
(104) Highway System
(26) Functional Class
(100) Defense Highway
(101) Parallel Structure
(102) Direction of Traffic

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(103) Temporary Structure
(110) Designated National Network
(20) Toll
(21) Maintain
(22) Owner
Report Class
(37) Historical Significance

POSTED SIGNS

Other Posted Sign 1
Other Posted Sign 2

	Actual	Recommended	
Posted Load Single Unit Truck	<input type="text"/>	<input type="text"/>	tons
Posted Load Semi-Trailer Truck	<input type="text"/>	<input type="text"/>	tons
Posted Load 4 Axle Truck	<input type="text" value="32"/>	<input type="text" value="32"/>	tons
Posted Load 3S2 Truck	<input type="text"/>	<input type="text"/>	tons
All Vehicles	<input type="text"/>	<input type="text"/>	tons
Posted Vert. Clearance on Bridge	<input type="text"/> ft.	<input type="text"/> in.	
Posted Vert. Underclearance	<input type="text"/> ft.	<input type="text"/> in.	
Posted Speed Limit on Bridge	<input type="text"/> m.p.h.		

OTHER FEATURES

Fence Required
Fence Present
Fence Height
Fence Material
Fence Top Type
Barrel Ladders
Stand Pipes
Catwalks
Moveable Inspection System
Haunches Present over Roadway
Utilities

PROPOSED IMPROVEMENTS

(75A) Type of Work Proposed
(75B) Work Done By
(76) Length of Structure Improvement ft.
(94) Bridge Improvement Cost \$
(95) Roadway Improvement Cost \$
(96) Total Project Cost \$
(97) Year of Improvement Estimate
(114) Future ADT
(115) Year of Future ADT
DOT Bridge Program List No
Project No
Advertised Date

LOAD RATING & POSTING


(31) Design Load
(63) Operating Rating Type
(64) Operating Rating
(65) Inventory Rating Type
(66) Inventory Rating
Evaluation Code
Year of Evaluation
(70) Bridge Posting
(41) Structure Status

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INSPECTOR'S SIGNATURES:

1)  Date: 09/30/2015

2)  Date: 10/01/2015

3) _____ Date:


4) _____ Date:

P.E. SIGNATURE:

Date:

P.E. #

Reviewed By:



Date: 10/02/2015

Form: BRI-18, Rev. 1/14
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FIELD INSPECTION REPORT

Location: 150 FT EAST OF ROUTE 167 Year Built: 1942 Snooper Required: ☐
Main Material: 3 - Steel Year Rebuilt: 1989 Snooper Used: ☐
Main Design: 02 - Stringer/Multi-beam or
Lead Inspector: Tracy Matthews

Inspectors:

Inspector:	Task:
Finn, Eric	BSE - Inspector
Matthews, Tracy	BSE - Inspector

Visits:

Visit Date:	Temp:	Start Time:	End Time:
09/17/201	85	12:55 PM	03:00 PM

58. DECK:

Overall Rating: 6

Rating

Overlay: 7 Newer bituminous overlay.

Transverse crack at west end over abutment #1.

Deck - Str. Condition: 6 Areas of light map cracks (curing type) in all bays.

Hairline cracks with efflorescence, especially in bay#4.

Small areas of honeycomb and horizontal cracks at random locations in haunches.

Bay #1 -

Efflorescence stains with a 5' x up to 3' area of short hairline cracks with efflorescence.

(1) 7' x 6" hollow area/ potential spall along haunch of beam #2 adjacent to abutment #1.

Bay #2 -

(1) 8' x 6" hollow area/ potential spall along haunch of beam #2 adjacent to abutment #1.

Curbs: 6 Concrete curbs -

Areas of moderate to heavy scale.

Random mortar patches, some with hairline cracks and efflorescence.

Isolated hollow areas.

Median: N

Sidewalks: N

Parapet: 5 RAILBASE -

Light to moderate scale with random areas of heavy scale.

Vertical, transverse & map cracking with efflorescence.

Mortar patches.

North -

Exterior face has (1) 12' x 9 " hollow area with hairline cracks and efflorescence.

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South -

Exterior face has several hollow patched areas up to 7' x 1' with hairline cracks and efflorescence.

Random surface spalls up to 1' diameter.

West end has (1) large corner spall.

Railing: 5 STEEL PICKETS - Chipped and peeling paint.

Areas of light to medium rust and areas of laminar rust with section loss and perforations along the bottom rail adjacent to connection point of pickets at the east end of south rail & west end of north rail.

North Rail -

Bent rail at 2nd section.

(1) missing picket at 3rd section.

South Rail -

West end section missing.

Random stanchions have collision damage with dents & scrape & minor bends of interior flanges.

East end section bent.

Paint: N

Fence: N

Drains: N

Lighting Standard: N

Overall Utility Condition Rating

Utility Type/Size

N | No Utilities present

Construction Joints: N

Expansion Joint: N

Haunches Present over travelway? NO

APPROACH CONDITION:

Overall Rating: 7

Rating

Approach Slab: N

Relief Joints: N

Approach Guide Rail: 6 Wire rope on wood posts -

Weathered posts with splits & checks .

Random newer posts.

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Some post leaning with areas of loose & slacked cables.

Approach Pavement: 7 (1) Broken post at southeast adjacent to structure with cables lying on the ground.,
Newer Bituminous-

Transverse and longitudinal cracks.

Approach Embankment: 8 Additionally there is (1) catch basin at east approach on south side adjacent to struture that is filled/ clogged with leaves, pine needles & debris.

Traffic Safety Features

Bridge Railings: 0

Transitions: 0

Approach Guardrails: 0

Approach Guardrail Ends: 0

59. SUPERSTRUCTURE:

Overall Rating: 6

Rating

Bearing Devices: N Beams encased into backwall.

Stringers: N

Girders: 6 Areas of light rust mainly along top flanges from previous deck leakage.

Areas of heavy laminar rust with minimal section loss at top and bottom flanges on exterior face of the north & south fascia beam.

Beam #2 top flange in bay #2 adjacent to abutment #1 exhibits area of heavy to laminar rust with minimal section loss.

Verify minimum section loss by removing laminar rust and taking measurements next inspection. (lcc 10/6/15)

Floor Beams: N

Trusses - General: N

Trusses - Portals: N

Trusses - Bracing: N

Paint: 7 Areas of peeling paint where laminar rust was painted over.

Rust: 6 Areas of light to laminar rust with small areas of minimal section loss.

Machinery Movable Span: N

Rivets & Bolts: N

Welds - Cracks: 8

Timber Decay: N

Concrete Cracking: N

Collision Damage: 8

Member Alignment: 8

Deflection Under Load: N

Vibration Under Load: N

Stand Pipes: N

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Barrel Ladders: N

Are Barrel Ladders OSHA Compliant?

60. SUBSTRUCTURE:

Overall Rating: 7

Rating

Abutments - Stem: 7 Vertical and horizontal hairline cracks with efflorescence frosting.

Void behind abutment northwest corner, probed up to 40" deep.

Abutment #2 has (1) 1" x 8" surface spall on west end face.

Abutments - Backwall: 7 Vertical hairline cracks with efflorescence frosting.

Short layered horizontal cracks with efflorescence at abutment #2.

Abutments - Footings: N

Abutments - Settlement: 8

Abutments - Wingwalls: N

Piers/Bents - Caps: N

Piers/Bents - Pile Bent: N

Piers/Bents - Columns: N

Piers/Bents - Footings: N

Piers/Bents - Settlement: N

Erosion - Scour: 8

Concrete Crack - Spall: 7 See above items.

Steel Corrosion: N

Paint: N

Timber Decay: N

Collision Damage: 8

Debris: N

61. CHANNEL AND CHANNEL PROTECTION:

Overall Rating: N

Rating

Channel - Scour: 8

Embankment - Erosion: 8

Debris: 6 Moderate embankment encroachment at the northwest & southeast with heavy muck and silt build - up in the channel.

Some debris slowing water flow at the inlet side.

Vegetation: 7 Heavy vegetation growth around structure especially at the southeast & northwest wingwall with channel embankments well vegetated up & down stream.

Channel Change: 7 Flow comes from a narrowed channel from the northwest caused by encroachment at the northwest with channel widening under structure and flow evenly distributed. Flow exits structure to encroachment at the southeast narrowing channel by up to 50% at outlet and eventually widens back to originally cut embankments downstream.

Channel is deep at centerline under structure.

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Slow flow during 9-17-15 inspection.

Fender - System: N
Spur Dikes and Jetties: N
Rip Rap: 8

62. CULVERTS AND RETAINING WALLS:

Overall Rating: N

Rating

Barrel:
Concrete: N
Steel: N
Timber: N
Headwall: N
Cutoff Wall: N
Debris: N
Retaining Wall System: N
Footing: N

LOAD POSTING:

Rating

Single Unit (Tons):
Semi Trailer (Tons):
4 Axle (Tons): 32 Posted at the bridge, both directions.
32 Tons.
3S2 (Tons):
All Vehicles:
Advanced Warning: N None.
Warning At Bridge:
Legibility: 8
Visibility: 8 At structure only.

VERTICAL CLEARANCE POSTING

Min. Vert Under Clearance: Ft In
Posted Clearance Under Bridge: Ft In
Posted Clearance On Bridge: Ft In
Advanced Warning: False
Warning At Bridge:
Legibility:
Visibility:

NOTES / COMMENTS:

Character of Traffic: Light with mixed weights.

Additional Notes:

West to East roadway.

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Additional Comments:

Verify minimum section loss by removing laminar rust and taking measurements next inspection.
(lcc 10/6/15)

Form: National Bridge

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	Mod.	1173	sq. ft.	1108	23	42	0
1080 - Delamination/Spall/Patched Area		26			13	13	
1120 - Efflorescence/Rust Staining		18				18	
1190 - Abrasion/Wear (PSC/RC)		21			10	11	
107 - Steel Open Girder/Beam	Mod.	171	ft.	93	19	59	0
1000 - Corrosion		78			19	59	
215 - Reinforced Concrete Abutment	Mod.	92	ft.	90	1	1	0
1080 - Delamination/Spall/Patched Area		1			1		
1120 - Efflorescence/Rust Staining		1				1	
330 - Metal Bridge Railing	Mod.	69	ft.	1	42	26	0
1000 - Corrosion		54			30	24	
1020 - Connection		8			8		
7000 - Damage		6			4	2	
331 - Reinforced Concrete Bridge Railing	Mod.	67	ft.	20	18	29	0
1080 - Delamination/Spall/Patched Area		47			18	29	

Bridge No.: 4548Date: 10-03-13Prepared By: TEAM 2

CONCRETE DETERIORATION WORKSHEET

Form BRI-10, Rev. 9/97

Deterioration By Span - In 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:
	Bot: $\Delta 7.5$	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
Scale (Moderate to Severe Only)	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:
	Bot: $\Delta 3$	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
Cracks: w/Efflorescence (use .5 width x length)	Bot: $\Delta 22.5$ 15	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
w/o Efflo. (use .25 width x length)	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:
	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
Map Cracking: w/Efflorescence (use full area)	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
w/o Efflo. (use 50% of area)	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:	Top:
	Bot: 7	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
Honeycombed Areas (only areas more than 1.5" deep)	Bot: 5	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:	Bot:
TOTAL	$\Delta 45$ 21										
Span Area	1169										
% Spalled and Delaminated on Top											
% Deterioration on Bottom	$\Delta 3.8\%$ 2.3%										

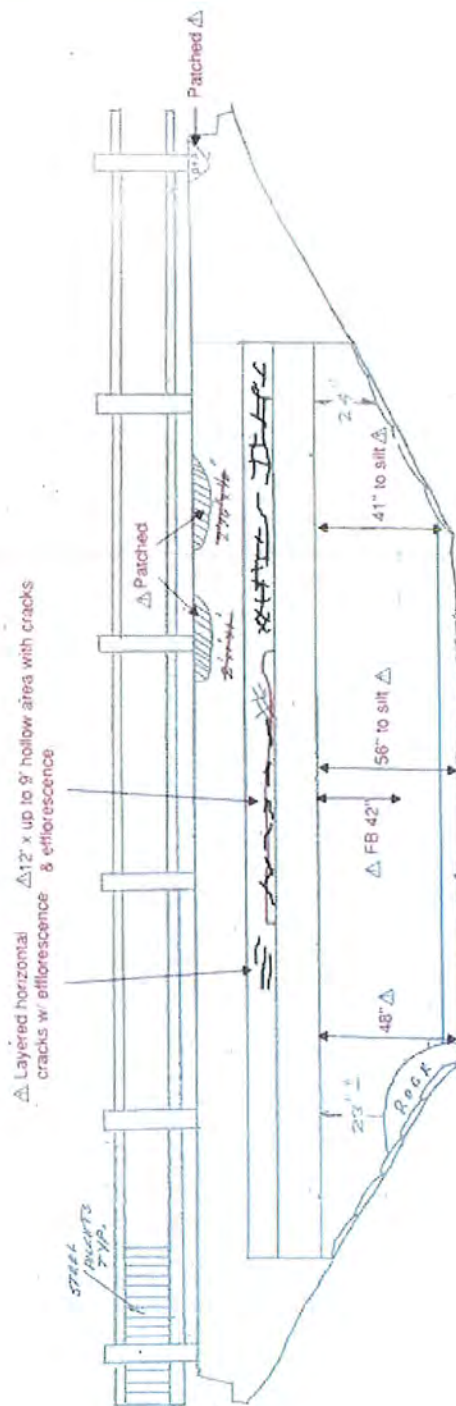
Sketches

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BR # 4548 CLIMAX ROAD - NOD BROOK, SIMSBURY "IN DEPTH" 10.03.13
 HTS



North Elevation (Inlet)

Δ 9-17-15

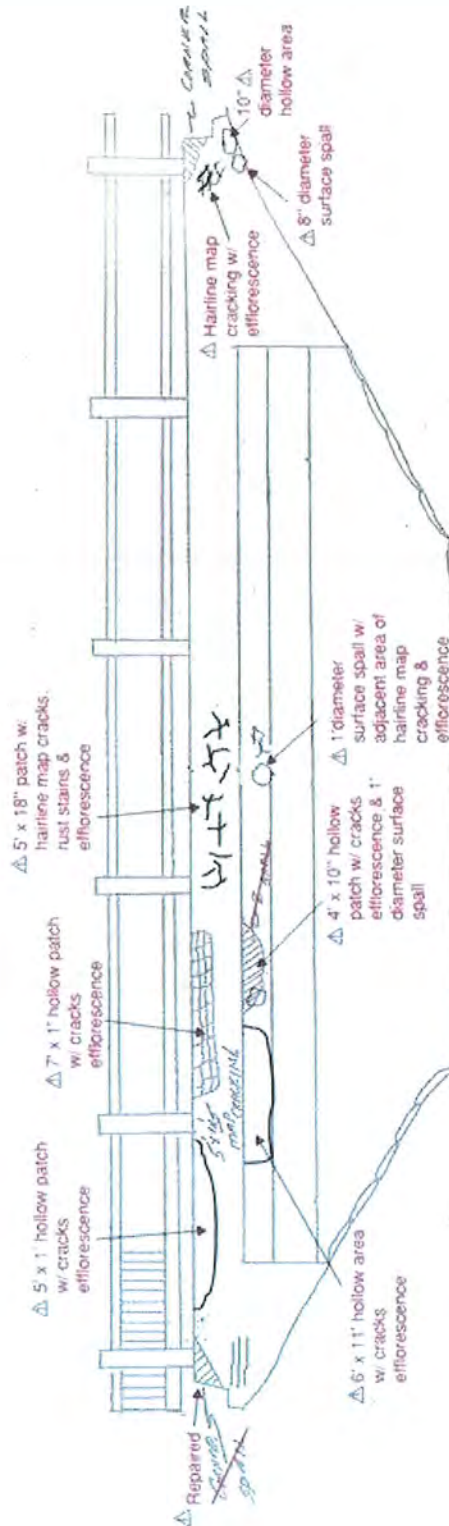
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Br # 4548, CLIMAX ROAD - o - NOD BROOK, SIMSBURY, "IN DEPTH" 10.03.15 HTS

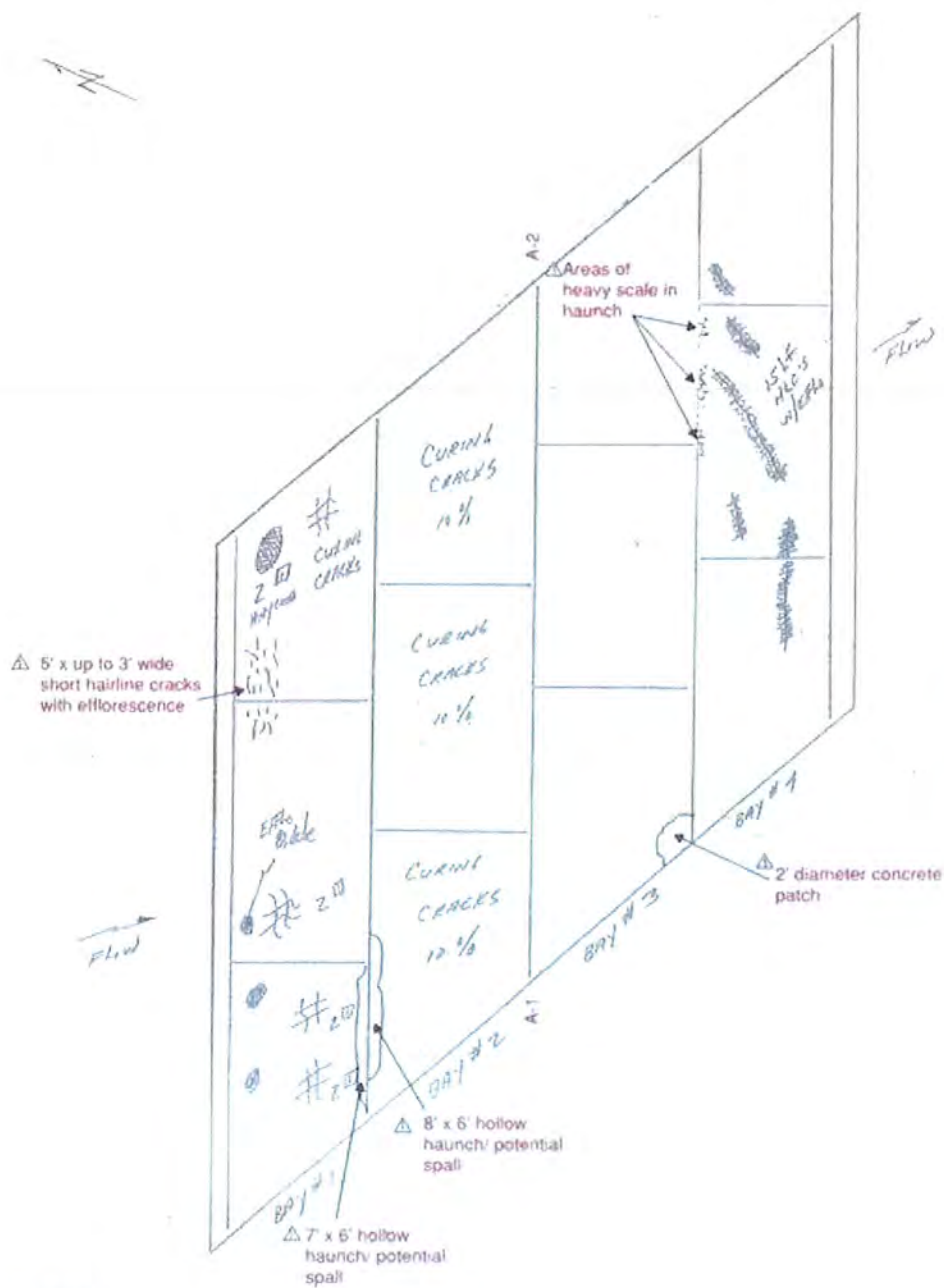


South Elevation

Δ 9-17-15

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Crossed: NOD BROOK
Inventory Route: Non-NHS



△ 9-17-15

BR # 4548 CLIMAX ROAD - 0 - NOO BROOK, SUMMERS "IN DEPTH"
10-03-13
NPS

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Printed on Recycled or Recovered Paper

Sketches

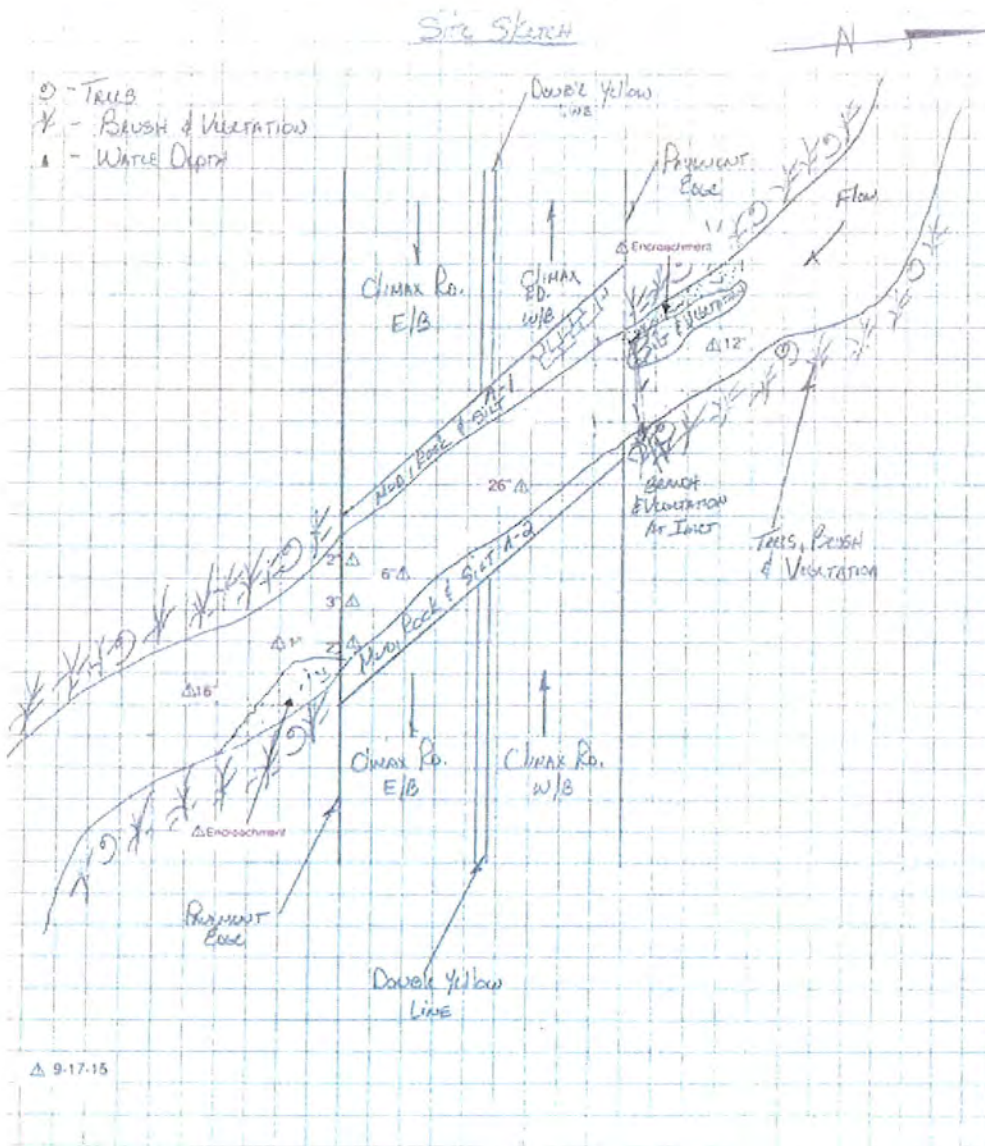
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DATE PREPARED 10-03-13	PREPARED BY TEAM-02	State of Connecticut Department of Transportation Bureau of Engineering & Highway Operations DES-003 REV 1-93 (302-08-0225) COMPUTATION SHEET	ORGANIZATION UNIT NO. EN DEPT	WORK ORDER NO.
DATE CHECKED	CHECKED BY			SHEET NO.

SUBJECT: B-04548 Climax Road at Nod Brook, Simsbury



Channel Plan

Form: Asset Photos
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Photo Number: 1

Looking eastbound on Climax Road from west approach.

Photo Taken: 09/17/2015



Photo Number: 2

Weight limit posting at the west approach.

Photo Taken: 09/17/2015

Form: Asset Photos
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Photo Number: 3

Looking westbound on Climax Road from east approach.

Photo Taken: 09/17/2015



Photo Number: 4

Weight limit posting at east approach.

Photo Taken: 09/17/2015

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Photo Number: 5

Photo Taken: 09/17/2015

Broken post with cables lying on ground at the southeast. Note clogged catch basin.



Photo Number: 6

Photo Taken: 09/17/2015

Area of collision damage to south railing at west end with missing end section.

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Photo Number: 7

North elevation. (Inlet)

Photo Taken: 09/17/2015



Photo Number: 8

Looking upstream.

Photo Taken: 09/17/2015

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Photo Number: 9

South elevation.

Photo Taken: 09/17/2015



Photo Number: 10

Looking downstream.

Photo Taken: 09/17/2015

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Photo Number: 11

Photo Taken: 09/17/2015

Exterior face of south railbase exhibits large hollow patched areas with cracking and efflorescence.



Photo Number: 12

Photo Taken: 09/17/2015

General view of abutment #1.

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Photo Number: 13

Hollow area /potential spall in haunch over beam #2 in bay 2.

Photo Taken: 09/17/2015



Photo Number: 14

Bay 4 exhibits cracks with heavy efflorescence.

Photo Taken: 09/17/2015

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Photo Number: 15

Beam 5 south side at top of bottom flange exhibits heavy laminar rust.

Photo Taken: 09/17/2015



Photo Number: 16

General view of abutment #2.

Photo Taken: 09/17/2015

Inspection Type: Routine



BRIDGE NO. 04549

68940 - SIMSBURY
FIRETOWN ROAD
over
BISSELL BROOK

Routine Inspection

09/21/2015

Inspected by: Team 2



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Form: Location

Inspection type: Routine

Inspection Date: 09/21/2015

Inspected by: Team 2

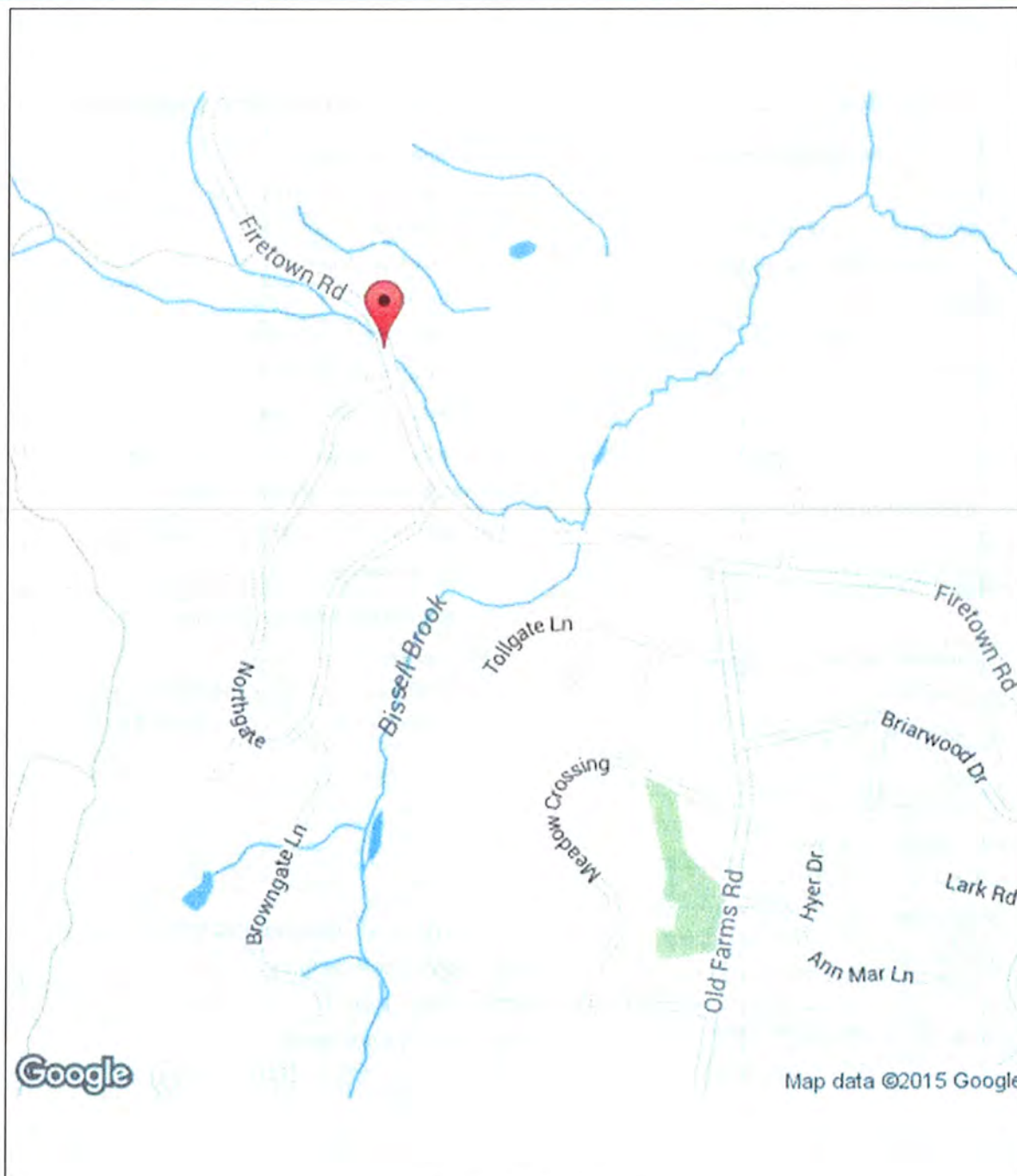
Bridge No: 04549

Town: SIMSBURY

Carried: FIRETOWN ROAD

Crossed: BISSELL BROOK

Inventory Route: Non-NHS



Location Map # 1

Form: BRI-19, Rev. 2/15
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STRUCTURE INVENTORY & APPRAISAL

INSPECTION

Structurally Deficient Functionally Obsolete
Sufficiency Rating
(90) Inspection Date (91) Frequency
Indepth Insp Proposed next Indepth Year
Deck Survey Date Class
Access Flagman

	Frequency	Date	Type
Fracture	<input type="text"/>	<input type="text"/>	<input type="text"/>
Underwater	<input type="text"/>	<input type="text"/>	<input type="text"/>
Special	<input type="text"/>	<input type="text"/>	<input type="text"/>

IDENTIFICATION

Bridge Name
Town Code - Name
(5) Inventory Route
(A) Record Type
(B) Signing Prefix
(C) Level of Service
(D) Route Number
(E) Dir Suffix
(6A) Featured Intersected
(6B) Critical Facility Indicator
(7) Facility Carried
(9) Location
(11) Mile Post Miles
(16) Latitude Deg. Min. Sec.
(17) Longitude Deg. Min. Sec.
(98) Border Bridge
(A) State Code (B) Percent Responsibility %
(C) Border Town Name
(99) Border Bridge Structure No.

STRUCTURE TYPE & MATERIALS

(43) Structure Type, Main
A) Material
B) Design Type
(44) Structure Type, Approach
A) Material
B) Design Type
(45) Number of Spans, Main Unit
(46) Number of Approach Spans
(107) Deck Structure Type
(108) Wearing Surface/Protection Systems
A) Type of Wearing Surface
B) Type of Membrane
C) Type of Deck Protection
Substructure
A) Material
B) Design Type
Paint
Type
Year
Comment

GEOMETRIC DATA

(48) Length of Maximum Span ft.
(49) Structure Length ft.
(50) Curb or Sidewalk Widths
A) Left ft. in. B) Right ft. in.
(51) Bridge Roadway Width Curb to Curb ft. in.
(52) Deck Width, Out to Out ft. in.
(32) Approach Roadway Width ft.

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(33) Bridge Median
Deck Area sq. ft.
(34) Skew Angle deg.
(35) Structure Flared
(10) Inv. Rte. Min. Vert. Clearance ft. in.
(47) Inv. Rte. Total Horiz. Clr. ft. in.
Log Inv. Rte. Total Horiz. Clr. ft. in.
RLog Inv. Rte. Total Horiz. Clr. ft. in.
(53) Min. Vert. Clearance Over Bridge ft. in.
(54) Log-Min. Vert. Underclearance ref. ft. in.
(55) Min. Lat Underclearance on Right ref. ft. in.
(56) Min. Lat Underclearance on Left ft. in.

CONDITION

(58) Deck
(59) Superstructure
(60) Substructure
(61) Channel & Channel Protections
(62) Culverts
(36) Traffic Safety Features
A) Bridge Railings
B) Transitions
C) Approach Guardrail
D) Approach Guardrail Ends

WATERWAY

Drainage Basin Waterway
(38) Navigation Control
(39) Navigation Vertical Clearance ft.
(40) Navigation Horiz. Clr. ft.
(111) Pier/Abutment Navigation
(116) Vert-Lift Brg Nav Min ft. in.

AGE AND SERVICE

Year Built (106) Year Reconstructed
(42) Type of Service
A) On
B) Under
(28) Number of Lanes
A) On B) Under
(29) Average Daily Traffic
Is Above Half ADT?
(109) Percent Truck %
(30) Years of ADT
(19) Bypass, Detour Length Miles

APPRAISALS

(67) Structural Evaluation
(68) Deck Geometry
(69) Underclearances, Vert. & Horiz.
(71) Waterway Adequacy
(72) Approach Roadway Alignment
(113) Scour Critical

COMMENTS

2015- No Project's AES 10-8-15

CLASSIFICATION

(112) NBIS Bridge Length
(104) Highway System
(26) Functional Class
(100) Defense Highway
(101) Parallel Structure
(102) Direction of Traffic

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(103) Temporary Structure
(110) Designated National Network
(20) Toll
(21) Maintain
(22) Owner
Report Class
(37) Historical Significance

POSTED SIGNS

Other Posted Sign 1

Other Posted Sign 2

	Actual	Recommended	
Posted Load Single Unit Truck	<input type="text"/>	<input type="text"/>	tons
Posted Load Semi-Trailer Truck	<input type="text"/>	<input type="text"/>	tons
Posted Load 4 Axle Truck	<input type="text"/>	<input type="text"/>	tons
Posted Load 3S2 Truck	<input type="text"/>	<input type="text"/>	tons
All Vehicles	<input type="text"/>	<input type="text"/>	tons

Posted Vert. Clearance on Bridge ft. in.

Posted Vert. Underclearance ft. in.

Posted Speed Limit on Bridge m.p.h.

OTHER FEATURES

Fence Required
Fence Present
Fence Height
Fence Material
Fence Top Type
Barrel Ladders
Stand Pipes
Catwalks
Moveable Inspection System
Haunches Present over Roadway
Utilities

PROPOSED IMPROVEMENTS

(75A) Type of Work Proposed
(75B) Work Done By
(76) Length of Structure Improvement ft.
(94) Bridge Improvement Cost \$
(95) Roadway Improvement Cost \$
(96) Total Project Cost \$
(97) Year of Improvement Estimate
(114) Future ADT
(115) Year of Future ADT
DOT Bridge Program List No
Project No
Advertised Date

LOAD RATING & POSTING

(31) Design Load
(63) Operating Rating Type
(64) Operating Rating
(65) Inventory Rating Type
(66) Inventory Rating
Evaluation Code
Year of Evaluation
(70) Bridge Posting
(41) Structure Status

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INSPECTOR'S SIGNATURES:

1) _____ Date: 10/06/2015

Greg Matthews

P.E. SIGNATURE:

Date:

2) _____ Date: 10/07/2015

[Signature]

P.E. #

Reviewed By:

Amy E. Stuba

Date: 10/14/2015

3) _____ Date:

4) _____ Date:

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FIELD INSPECTION REPORT

Location: OFF ROUTE 309
Main Material: 1 - Concrete
Main Design: 01 - Slab
Lead Inspector: Tracy Matthews

Year Built: 1949
Year Rebuilt

Snooper Required: ☐
Snooper Used: ☐

Inspectors:

Inspector:	Task:
Finn, Eric	BSE - Inspector
Matthews, Tracy	BSE - Inspector

Visits:

Visit Date:	Temp:	Start Time:	End Time:
09/21/201	57	09:35 AM	10:55 AM

58. DECK:

Overall Rating: 7

Rating

Overlay: 7 Chip seal overlay.

Isolated transverse & random cracks.

Deck - Str. Condition: 7 Per CT.DOT Inspection Manual chapter 10.1 the deck rating is based on condition of wearing surface.

Curbs: N

Median: N

Sidewalks: N

Parapet: 7 Railbases -

Light to moderate scale and one small surface spall with exposed rebar on the west railbase.

East railbase has (1) hairline transverse crack with area of exposed rebar.

Railbase reveal west 2.5 inches at midspan.

Railbase reveal east 6 inches at midspan.

Hairline cracks along the top surface.

Railing: 6 Angle iron posts and caps show light to moderate rust with exposed primer & isolated areas of laminar rust.

Wire rope from post to post.

Paint: N

Fence: N

Drains: N

Lighting Standard: N

Overall Utility Condition Rating

Utility Type/Size

N | No Utilities present

Construction Joints: N

Expansion Joint: N

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Haunches Present over travelway? NO

APPROACH CONDITION:

Overall Rating: 7

Rating

Approach Slab: N

Relief Joints: N

Approach Guide Rail: 7 Double wire rope on wood posts.

Weathered post with random posts exhibiting splits and checks & some tipped.

Approach Pavement: 7 Chip seal overlay.

Random transverse and longitudinal cracks.

North approach in southbound lane exhibits isolated area of map cracking and (1) full width transverse crack open up to 1/4" adjacent to structure.

South approach has (1) full width transverse crack with adjacent 32" x 12" open up to 1/2" D type crack with breakage & small spalls.

Approach Embankment: 8 Rip rap has been placed behind all four wings and embankments at varying amounts.

Traffic Safety Features

Bridge Railings: 0

Transitions: 0

Approach Guardrails: 0

Approach Guardrail Ends: 0

59. SUPERSTRUCTURE:

Overall Rating: 7

Rating

Bearing Devices: N

Stringers: N

Girders: 7 Reinforced concrete slab.

A narrow band of intermittent light map hairline cracks 3'w x 21'L (curing type) adjacent to abutment #1.

Several small surface spalls with exposed shallow rebar.

Numerous small spalls totaling 3 s.f. (popout type) at abutment #2.

Floor Beams: N

Trusses - General: N

Trusses - Portals: N

Trusses - Bracing: N

Paint: N

Rust: N

Machinery Mcvable Span: N

Rivets & Bolts: N

Welds - Cracks: N

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Bridge No: 04549

Town: SIMSBURY
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Inventory Route: Non-NHS

Timber Decay: N
Concrete Cracking: 7 See above items.
Collision Damage: 8
Member Alignment: 8
Deflection Under Load: N
Vibration Under Load: N
Stand Pipes: N
Barrel Ladders: N
Are Barrel Ladders OSHA Compliant?

60. SUBSTRUCTURE:

Overall Rating: 6

Rating

Abutments - Stem: 6 Both abutments show light to moderate scale at the waterline.

Graffiti on faces.

Abutment #2 –

Full height vertical crack open 1/8" with small surface spalls, at west end.

Area of moderate to heavy scale on stem at west end.

(1) Small surface spall at top near east end & (1) crack with 4" diameter hollow area extending from crack in northeast wingwall.

Abutments - Backwall: N

Abutments - Footings: 8

Abutments - Settlement: N

Abutments - Wingwalls: 5 Wingwalls –

Rip rap placed behind all wings.

Light to moderate scale along caps.

Northeast wingwall -

(1) Diagonal crack, starting as hairline from base near free end extending upwards to structure opening up to 1.5" at top with 4" spalls along crack with exposed rebar adjacent to structure.

Open 1.5" at top, shifted 1" at paint mark. No change noted during 9/21/15 inspection.

Northwest wingwall shows an area of severe scale on cap near abutment, 10"x 6"x 2" deep.

Southwest –

(1) 8" x 10" x 1" deep spall & (1) 12" x 8" x 2" deep spall at free end.

Piers/Bents - Caps: N

Piers/Bents - Pile Bent: N

Piers/Bents - Columns: N

Piers/Bents - Footings: N

Piers/Bents - Settlement: N

Form: BRI-18, Rev. 1/14

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Bridge No: 04549

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Inventory Route: Non-NHS

Erosion - Scour: 7

Concrete Crack - Spall: 6 See above items.

Steel Corrosion: N

Paint: N

Timber Decay: N

Collision Damage: 8

Debris: N

61. CHANNEL AND CHANNEL PROTECTION:

Overall Rating: 6

Rating

Channel - Scour: 8 Dry channel no scour noted.

Embankment - Erosion: 8 Channel upstream lined with rocks and rip rap.

Debris: 6 (2) Medium size fallen trees in channel upstream with small trees growing in channel downstream and limbs and branches on embankments.

Heavy gravel build up along the northeast and abutment #2.

Vegetation: 6 Light to moderate tree & vegetation growth on embankments.

Channel Change: 7 Channel comes from the northwest at moderate angle and aligns with the southwest wingwall and abutment #1. Note no flow during 9-21-15 inspection/ dry channel.

Fender - System: N

Spur Dikes and Jetties: N

Rip Rap: 8 Rip rap has been placed behind all four wings at varying amounts.

62. CULVERTS AND RETAINING WALLS:

Overall Rating: N

Rating

Barrel:

Concrete:

Steel:

Timber:

Headwall:

Cutoff Wall:

Debris:

Retaining Wall System:

Footing:

LOAD POSTING:

Rating

Single Unit (Tons):

Semi Trailer (Tons):

4 Axle (Tons):

3S2 (Tons):

All Vehicles:

Advanced Warning: N

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Warning At Bridge:

Legibility: N

Visibility: N

VERTICAL CLEARANCE POSTING

Min. Vert Under Clearance: Ft In

Posted Clearance Under Bridge: Ft In

Posted Clearance On Bridge: Ft In

Advanced Warning: False

Warning At Bridge:

Legibility:

Visibility:

NOTES / COMMENTS:

Character of Traffic: Light with mixed weights.

Additional Notes:

South to north roadway.

Additional Comments:

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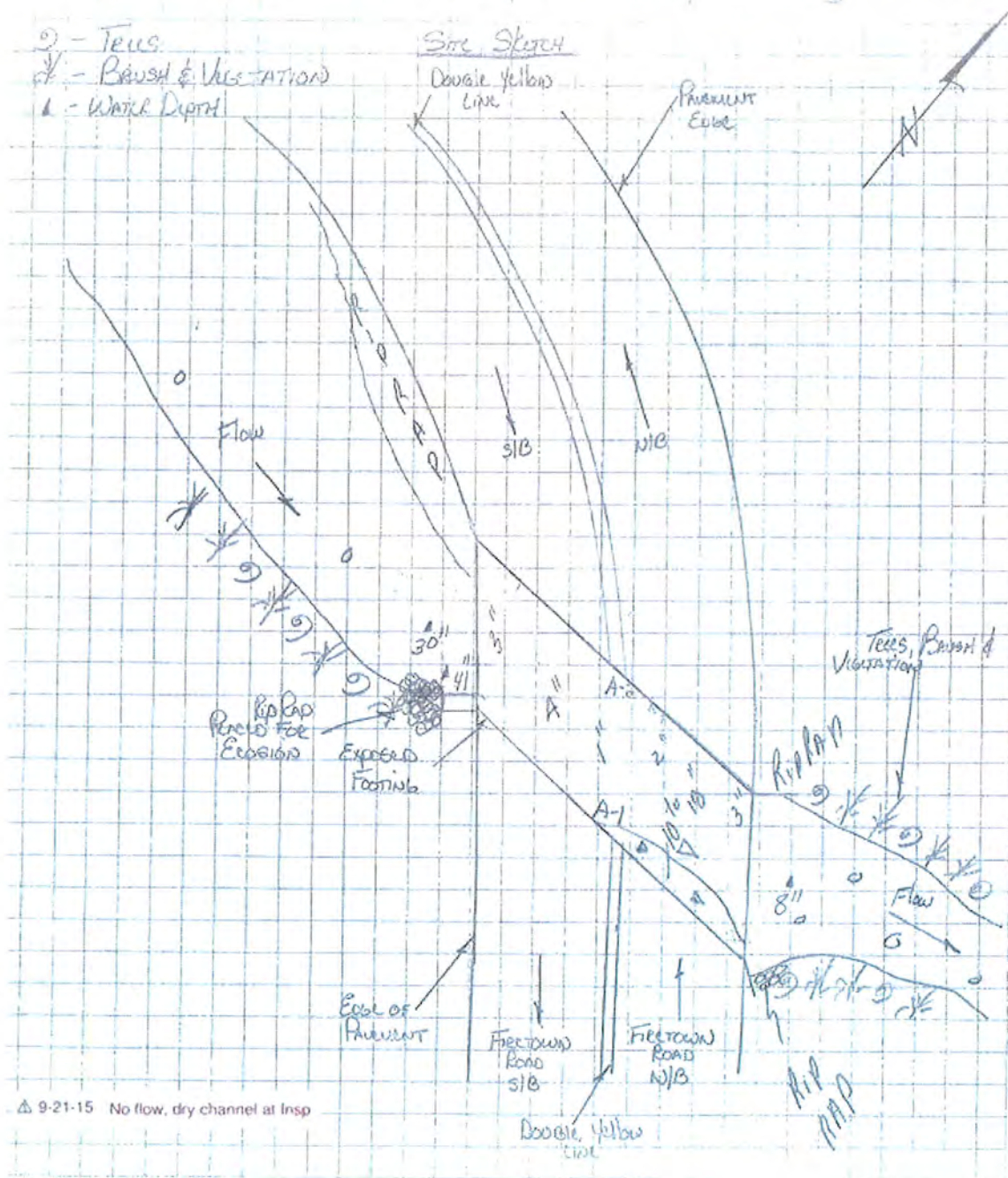
	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
38 - Reinforced Concrete Slab	Mod.	689	sq. ft.	677	12	0	0
1080 - Delamination/Spall/Patched Area		5			5		
1090 - Exposed Rebar		7			7		
215 - Reinforced Concrete Abutment	Mod.	144	ft.	0	126	9	9
1130 - Cracking (RC and Other)		10				1	9
1190 - Abrasion/Wear (PSC/RC)		134			126	8	
330 - Metal Bridge Railing	Mod.	46	ft.	4	34	8	0
1000 - Corrosion		42			34	8	
331 - Reinforced Concrete Bridge Railing	Mod.	46	ft.	0	46	0	0
1080 - Delamination/Spall/Patched Area		1			1		
1090 - Exposed Rebar		45			45		

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DATE PREPARED 09-23-13	PREPARED BY TEAM-02	State of Connecticut Department of Transportation Bureau of Engineering & Highway Operations DES-003 REV 1-93 (302-08-0225) COMPUTATION SHEET	ORGANIZATION UNIT NO. ROUTINE	WORK ORDER NO.
DATE CHECKED	CHECKED BY			SHEET NO.

SUBJECT: Be # 04549 FIRETOWN ROAD of Bissell Brook, SIMSBURY

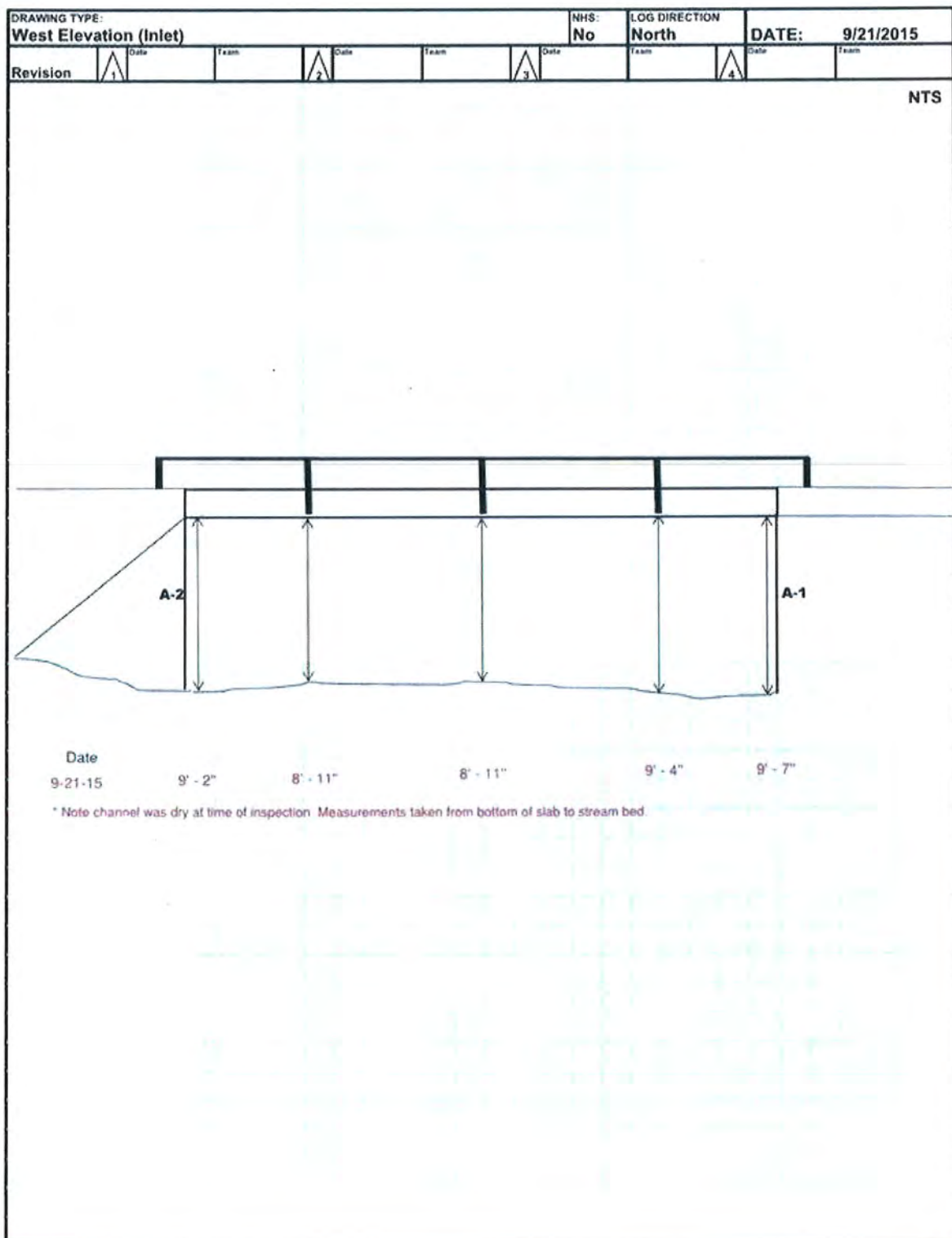


Sketches

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Form: Asset Photos
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Photo Number: 1

Looking northbound on Firetown Road from south approach.

Photo Taken: 09/21/2015



Photo Number: 2

Looking southbound on Firetown Road from north approach..

Photo Taken: 09/21/2015

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Photo Number: 3

General view of wearing surface.

Photo Taken: 09/21/2015



Photo Number: 4

West elevation. (Inlet)

Photo Taken: 09/21/2015

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Photo Number: 5

Photo Taken: 09/21/2015

View upstream.



Photo Number: 6

Photo Taken: 09/21/2015

East elevation.

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Photo Number: 7

View downstream.

Photo Taken: 09/21/2015



Photo Number: 8

General view of abutment #1.

Photo Taken: 09/21/2015

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Photo Number: 9

General view of underside.

Photo Taken: 09/21/2015



Photo Number: 10

General view of abutment #2.

Photo Taken: 09/21/2015

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Photo Number: 11

Photo Taken: 09/21/2015

Full height vertical crack in abutment #2 adjacent to inlet.



Photo Number: 12

Photo Taken: 09/21/2015

Northeast wingwall exhibits open diagonal crack with adjacent spalls near structure.

