NPS Form 10-900 (Rev. August 2002)

United States Department of the Interior National Park Service

# NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM

(Expires 1-31-2009) RECEIVED 2280 APR 9 2010 NAT. REGISTER OF HISTORIC PLACES NATIONAL PARK SERVICE

176

OMB No. 1024-0018

## 1. Name of Property

historic name: <u>BUTTS BRIDGE</u> other name/site number: <u>Bridge 01649 over the Quinebaug River</u>

## 2. Location

street & number: Butts Bridge F	Road (SR 668) over Quinebaug River, 0.4 miles east of SR 169	not for publication:
city/town: Canterbury	_ vicinity:	
state: CT county: Windham	code: <u>015</u> zip code: <u>06331</u>	

## 3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this <u>X</u> nomination <u>request</u> for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property <u>X</u> meets <u>does not meet the National Register Criteria. I recommend that this property be considered significant</u> <u>nationally X statewide</u> <u>locally.</u> (<u>See continuation sheet for additional comments.</u>)

1000

4-7-10 Date

Signature of certifying official Date Karen J. Senich, State Historic Preservation Officer, Connecticut Commission on Culture and Tourism State or Federal agency and bureau

In my opinion, the property \_\_\_\_\_ meets \_\_\_ does not meet the National Register criteria. ( \_\_ See continuation sheet for additional comments.)

Signature of certifying official/Title

Date

State or Federal agency and bureau

4. National Park Service Certification I, hereby certify that this property is: of Keeper Date of Ac entered in the National Register \_ See continuation sheet. determined eligible for the National Register \_ See continuation sheet. determined not eligible for the National Register removed from the National Register other (explain):

Butts Bridge Name of Pro	perty	Windham, CT County and State	
5. Classific	ation		
Ownership	of Property: <u>public</u>		
Category o	f Property: <u>structure</u>		
Number of	<b>Resources within Property</b> :		
Contri	buting Noncontributing		
	buildings		
	sites		
1	structures		
	objects		
1	0 Total		
Name of re	lated multiple property listing: <u>N/A</u>		
6. Function	or Use		
Historic Fu	nctions: RANSPORTATION/road-related (vehicular)		
Current Fu T	Inctions: RANSPORTATION/road-related (vehicular)		
7. Descript	ion		
Architectu	ral Classification:		
OTHER:	Parker through truss		
Materials:			
foundation	CONCRETE		
roof	N/A		
walls	<u>N/A</u>		
other	STEEL: truss & superstructure CONCRETE: deck		

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

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Butts Bridge, Canterbury, Windham County, Connecticut

## Item 7. Narrative Description

Butts Bridge, completed in 1936 over the Quinebaug River, is a 231.5-foot-long, 31.7-foot-wide riveted-steel Parker through-truss structure, built by the A.I. Savin Construction Company to Connecticut State Highway Department plans with built-up members fabricated by the Fort Pitt Bridge Works. The bridge, with a single 221.5-foot span, is the largest and latest in a series of similarly-named crossings built at nearby upstream locations over a period of two centuries. All these bridges were parts of various alignments of Butts Bridge Road (SR 668), an east-west connection between present state routes 169 to the west and 12 to the east in a wooded, lightly-settled section of Canterbury. None of the earlier crossings survive, aside from the stone abutments of the next-to-last crossing site a short distance upstream of the 1936 structure (Figure 2; Photographs 1-2).

Butts Bridge has 100-foot-wide, approximately 30-foot-high reinforced-concrete abutments with flared wingwalls. The abutment backwall tops support the ends of the 9.5-inch-thick reinforced-concrete bridge deck, which slopes down 0.5 percent from west to east. Each abutment face is 5.8 feet below the backwall top, and forms a 3.6-foot-wide shelf on which the 2.3-foot-wide, 1.5-foot-high built-up steel bridge bearings sit. The eastern bridge bearings are fixed, while the western bearings are rocker shoes providing for expansion of the steel truss. The bearings support the 230-foot-long, 24-by-16-inch bottom chord girders, and the end-most 29-foot-long, 42-inch-high floor beams. Each bottom chord consists of paired web plates with interior top and bottom angles, tied together with batten plates at top and bottom. The floorbeams, connected to the bottom chord at the 20.5-foot-long truss panel points, are built-up girders with double angle flanges riveted to web plates. Eight 6-by-18-inch I-beam stringers at 3.8-foot centers, attached to the floorbeams with stiffened seated beam connections, complete the major framing system for the bridge deck. Lower lateral cross bracing under each pair of truss panels consists of paired 6-by-4-inch angles, connected to a gusset plate at the bottom of each floorbeam, and joined at the panel center with a gusset plate which is stabilized by a vertical angle bracket suspended from a 6-inch-deep channel-shape diaphragm between the two center stringers. The curb-to-curb bridge roadway width is 27.8 feet (Figure 3; Photographs 1-2, 4-6; Connecticut State Highway Department 1935-1936; Fort Pitt Bridge Works n.d.; Close, Jensen and Miller 2005).

Each 11-panel truss is 41.6 feet high at the center of the polygonal upper chord, with 20-inch-high box-girder upper chord and end posts built up with web plates set 16 inches apart, top and bottom exterior angles, 2-foot-wide top cover plates, and lacing bar cross bracing at the bottom. The vertical posts and diagonals are 13.5 inches wide. The I-section end vertical posts are web plates with double angle flanges. Intermediate box-girder vertical posts are paired channels stitched with batten plates and single lacing bars on both sides. Diagonals are paired angles connected by 12-inch-long tie plates at 3-foot centers. Portals and sway bracing frames begin at least 16.3 feet above the roadway, with the sway frames reaching depths of 21 feet at the center panels. Each 31-foot-wide, 6.1-foot-high portal consists of a cover-plated angle top strut, a web of double 3-by-3-inch angle cross braces, and a 25-inch-deep lattice sway strut of double lacing bars framed top and bottom by angles attached to the truss end posts. The sway frames are two-tiered diagonal bracing structures, with 3.5-by-3.5-inch double angles forming top and bottom struts as well the vertical diaphragms at the frame centers, and single angles of the same size used for the diagonal braces. The 20.5-inch-high upper lateral bracing consists of double lacing bars tied to top and bottom 3.5-by-3.5-inch angles (Figure 3-4; Photographs 1-3, 7-9; Connecticut State Highway Department 1935-1936; Fort Pitt Bridge Works n.d.; Roth and Clouette 1990; Close, Jensen and Miller 2005).

The southwest end post has a cast plate with the inscription

## 1936 BUILT BY FORT PITT BRIDGE WORKS PITTSBURGH, PA

which is somewhat misleading since the firm served as fabricator rather than construction contractor (Photograph 10).

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Butts Bridge, Canterbury, Windham County, Connecticut

The original bridge railings were square steel vertical spindles framed top and bottom with wrought iron pipes. As part of a rehabilitation project completed in 1988, the railings were replaced with stiffened metal W-rails attached to steel posts mounted atop the lower chord of each truss. This project also included replacement of the concrete deck curbing, deck and abutment repairs, cleaning and painting of all steel, and replacement of deteriorated portions of bottom gusset plates at the west end of the north truss and the east end of the south truss. Replacement gusset plate sections were bolted rather than riveted. Other than these relatively minor alterations, the 1936 bridge remains as originally built (Fort Pitt Bridge Works n.d.; McFarland-Johnson Engineers, Inc. 1985; Close, Jensen and Miller 2005). Butts Bridge Name of Property Windham, CT County and State

## 8. Statement of Significance

## **Applicable National Register Criteria**

Applicable National Register Criteria: A, C

Criteria Considerations (Exceptions) : N/A

Areas of Significance: ENGINEERING INDUSTRY TRANSPORTATION

Period(s) of Significance: c1920 - 1940

Significant Dates: \_\_\_\_\_1936

Significant Person(s): <u>N/A</u>

Cultural Affiliation: Euro-American

Architect/Builder: <u>Connecticut State Highway Department (designer)</u> Fort Pitt Bridge Works (fabricator) A.I. Savin Construction Company (builder)

## Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets)

## 9. Major Bibliographical References

## Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

## Previous documentation on file (NPS):

- \_\_\_\_ preliminary determination of individual listing (36 CFR 67) has been requested.
- \_\_\_ previously listed in the National Register
- \_\_\_\_ previously determined eligible by the National Register
- \_\_\_\_ designated a National Historic Landmark
- \_\_\_\_ recorded by Historic American Buildings Survey #\_\_\_\_\_
- \_\_\_\_ recorded by Historic American Engineering Record # \_\_\_\_\_

## **Primary Location of Additional Data:**

X	State historic preservation office	Connecticut State Historic Preservation Office
	where the second s	

\_ Other state agency

59 South Prospect Street

Hartford, Connecticut 06106

- \_ Federal agency
- \_ Local government
- \_ University
- \_ Other -- Specify Repository: \_\_\_\_\_

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Butts Bridge, Canterbury, Windham County, Connecticut

## Item 8. Narrative Statement of Significance

The 1936 Butts Bridge is at least the ninth crossing of the Quinebaug River in this vicinity, and reflects significant transitions in bridge engineering and local or state transportation planning from the early 18<sup>th</sup> through the early 20<sup>th</sup> centuries (Criterion A). Constructed at a flood-prone section of the river on a new road alignment, the riveted-steel Parker through truss followed a series of town-built timber bridges and a late 19<sup>th</sup>-century wrought-iron lenticular truss bridge. State design and federal-state financial support for the 1936 structure were part of nationwide trends in establishing common standards for transportation improvements, and in Depression-era public works assistance. Butts Bridge is also significant as an example of the last period of truss bridge construction in Connecticut, with large truss members to accommodate increasing vehicle weights and traffic volume (Criterion C). The bridge fabricator was perhaps the largest independent maker of steel structures in the United States. The Parker truss design's load capacity and economy of materials was preferred by the State Highway Department for spans of over 200 feet (Historic Resource Consultants 1991; Herron 2003; Parsons Brinckerhoff and Engineering and Industrial Heritage 2005).

<u>Criterion A</u>. Property is associated with events that have made a significant contribution to the broad patterns of our history.

Euroamerican settlement in Canterbury began in the late 17th century, on lands subject to conflicting claims on both sides of the Quinebaug River. Plainfield, including present Canterbury, was incorporated as a town in 1699. In 1703, the Connecticut General Assembly divided Canterbury and Plainfield as part of an effort to settle the claims, with the river forming most of the border between the towns. Canterbury remained a small agricultural town until the late 20th century, with little large-scale industrial development and a location bypassed by 19th-century railroads and 20th-century interstate highways. For a century before the first railroad opened near Canterbury in the 1830s, however, the town straddled several important road networks, including one which spurred repeated reconstruction of a crossing near the 1936 Butts Bridge despite regular flood and ice damage. The Great Road, originating as an Indian trail from present Windham to Narragansett Bay, ran east-west through the centers of Canterbury and Plainfield to became part of a Hartford-Providence route early in the 18th century along the alignment of present state routes 14 and 14A, three miles upstream of Butts Bridge. The high banks and relatively narrow width of the Ouinebaug east of Canterbury center encouraged bridge construction along the Great Road. To accommodate travel from Norwich to Providence without having to pass through Canterbury center on present Route 169 paralleling the west side of the river, a path sometimes called the Providence Road ran roughly northeast from Norwich to Plainfield by the late 1720s, crossing the Quinebaug in the vicinity of Butts Bridge and reaching Plainfield via present Route 12 and some local roads. The latter river crossing, about three miles south of Canterbury center, was also along a narrow stretch of river with high banks, running for approximately a half mile and separated from the Great Road crossing area by broader floodplains less conducive to bridge construction (Blodget 1792; Larned 1874; Bayles 1889; Wood 1919).

It is not known when the crossings near present Butts Bridge became town infrastructure, but the earliest, undocumented versions may have been built with private subscriptions. The terrain which attracted bridge builders was also prone to high water and destructive ice flows, and local enthusiasm for the crossing waned after the river carried off the bridge several times. The earliest crossings were of timber, probably with multiple rubble-pier-supported spans which extended more than 140 feet across the river. Bridges built in 1728, 1733, and 1760 — the second constructed by Samuel Butts whose name thereafter followed the crossings — were each washed out within one or two years. Neither the town nor any neighbors wanted to rebuild after ice floes destroyed the 1760 bridge in 1761, but the importance of the Norwich-Plainfield route in regional commerce spurred petitioners from Canterbury and other towns to compel Canterbury to rebuild the crossing c1763 by an act of the Connecticut General Assembly. Because of a 1760 mill dam which exacerbated the 1761 ice damage, the 1763 crossing was downstream of the earlier ones; none of the 1728-1763 bridge locations have been confirmed (Connecticut Colonial Records 1762-1767; Larned 1880; Bayles 1889; Canterbury Historical Society n.d.a, n.d.b).

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Butts Bridge, Canterbury, Windham County, Connecticut

After the Revolution, the Connecticut General Assembly planned intertown roads and expected the towns would finance them by taxes and lotteries. When faced with local resistance to road taxes, the legislature issued charters to turnpike proprietors who, acting as regulated public utilities, sold stock and collected tolls to finance road construction and maintenance. Beginning in 1792, the state granted over 120 turnpike franchises over a period of some sixty years. The Butts Bridge crossing was never part of a turnpike, but a fifth crossing was built in 1782 funded by a state-authorized lottery, with large stone piers which may correspond to at least the locations of the abutments still visible upstream of the 1936 bridge. Later wooden bridges were built in 1817 and 1836, probably at the same site, in response to flood damage or bridge deterioration (Bayles 1889; Wood 1919; Canterbury Historical Society n.d.a, n.d.b).

The wooden versions of Butts Bridge were almost certainly one-lane structures. In 1886, the town spent \$2800 to replace the 1836 crossing with another one-lane bridge, this one a wrought-iron, pin-connected lenticular through truss structure built by the Berlin Iron Bridge Company with a single span of approximately 143 feet. It is not known if the company replaced or re-used the masonry abutments. The selection of a metal-truss crossing reflected a period of transition in Connecticut bridge construction. By about 1870, floods had destroyed enough of the state's timber bridges that towns became more likely to spend the added sums needed to secure stone-arch or metal-truss bridges of greater durability. A masonry crossing of the Quinebaug River was not practical or affordable. In what was often intense competition c1870-1900 among metal-truss bridge fabricators, the Berlin Iron Bridge Company of East Berlin, Connecticut was the state's only major contractor and a very successful player in the northeastern United States municipal bridge market. Formed in 1883, the company and its predecessor, the Corrugated Metal Company, thrived on variants of the lenticular truss design patented in 1878 by William O. Douglas. The lenticular truss, with a distinctive profile of symmetrically-curved top and bottom chords which allowed for a very economical use of material, was the basis of most of the Berlin Iron Bridge Company's nearly 1000 crossings completed into the late 1890s. The through truss form was typical of lenticular truss spans over 80 feet long. Successful marketing of lenticular truss variations made the firm New England's largest structural fabricator. With the increased use of steel in bridge trusses and perhaps some design disadvantages, the company evidently sold few lenticular trusses after c1895. In 1900, J.P. Morgan's American Bridge Company absorbed Berlin Iron Bridge Company and twenty-three other bridge firms into a would-be monopoly controlling half of American bridge fabricating capacity (Town of Canterbury 1886; Darnell 1979; Clouette and Roth 1991: 7-9; Public Archaeology Survey Team, Inc., 2001).

By the time the town needed to replace the iron truss in the mid-1930s, the context of road and bridge construction had changed dramatically. Following a period of advocacy for road improvements in the late 19th century, Connecticut established a state Highway Commission in 1895. Although the commission's initial mission was limited to distributing state matching funds to towns for road construction, James H. MacDonald - first commissioner of the Connecticut State Highway Department - immediately advocated for a statewide trunk road system. Until the onset of federal assistance during World War I, the department supervised funding of roads selected by town selectmen, and slowly built a 14-road statewide trunk system recognized by the legislature in 1905. In 1915, the department was given responsibility for nearly all state bridges, but in the absence of much funding the state's bridge construction work was limited to a few critical crossings. The stress of World War I demands on transportation networks used to supply Europe led, even before American entry into the war, to the 1916 Federal Aid Road Act which made a limited amount of federal matching funds available to support the states' overall construction programs. The Connecticut Highway Department apportioned the money according to its own priorities, and with federal approval devoted most of the new funding to trunk-line improvements including bridge reconstruction. Butts Bridge and Butts Bridge Road were never part of the trunk road system, and were not eligible for much if any state assistance in this period, but the standards for the 1936 project began to emerge long before the present bridge was built. The 1916 act and later amendments also encouraged states to establish standards for road and bridge design. In 1927, the department issued the first of these specifications, which included preferences for bridges of concrete, or of Pratt or Warren metal truss designs. These specifications led to considerable standardization of bridge designs, even on town-funded projects (Clouette and Roth 1991; Connecticut Department of Transportation 2003; Parsons Brinckerhoff and Engineering and Industrial Heritage 2005).

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Butts Bridge, Canterbury, Windham County, Connecticut

In 1931, with the effect of the Great Depression being felt all over the State, the legislature appropriated \$3 million for the construction and maintenance of local roads. Federal New Deal programs enabled construction of larger projects like Butts Bridge which were not priorities for the State Highway Department, but benefitted from the department's expertise. The Federal Emergency Administration of Public Works (Public Works Administration, 1933-1941), was the first national peacetime effort to create jobs by improving the nation's infrastructure. The 1934 Federal Aid bill substantially assisted the state in its funding of construction projects. The Works Progress Administration (1935-1943) employed millions of people in projects including road and bridge construction. Canterbury was able to take advantage of all these programs, though reimbursement or assistance was more available for roadwork rather than non-trunk-road bridges (Town of Canterbury 1914-1961; Connecticut Department of Transportation 2003).

Between January and August of 1935, the town inspected the iron bridge and completed some minor repairs for approximately five hundred dollars. It is unclear if this work was intended to maintain the 1886 bridge for continued use, or to patch the structure pending replacement, but by the early Fall of 1935 the town reached an agreement with the State Highway Department for two separate projects to realign Butts Bridge Road and build the existing crossing. Butts Bridge Road took a circuitous route at the Quinebaug River to reach the relatively short span used for the 1886 iron bridge and some of its predecessors. The new set of designs, completed by department engineers beginning in November 1935, included realignment and paving of approximately 3000 feet of road to straighten the route for better automobile use. The well-developed standards for steel truss construction allowed for the considerable increase in length between the 1886 and 1936 bridges. Funded in part by the Public Works Administration, the construction on Butts Bridge Road was completed between April and August 1936, soon after the March 1936 flood which left the iron bridge intact. The old bridge was demolished in October 1936, and about a year later the town finished paying for approximately 27% of the bridge and road work, including perhaps 57% of the costs associated directly with the bridge (Town of Canterbury 1914-1961, 1935, 1938; Connecticut State Highway 1935-1936, 1936; Haber 2007-2008; Canterbury Historical Society n.d.a).

<u>Criterion C</u>. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction.

Butts Bridge is significant as one of the last and largest examples of truss bridge construction in Connecticut, with the most common design used in the state for long spans. The bridge types favored by the State Highway Department reflected some three decades of transition in American design and construction practice. Beginning in the mid-1890s, trusses became more standardized, less reliant on patented components, and characterized by steel members with riveted rather than pinned connections. The consolidation in the bridge fabricating industry represented by the American Bridge Company contributed to the standardization of designs and materials, as did the 1901 acquisition of American Bridge by U.S. Steel. After c1900, however, only minor design refinements addressed the need for heavier loads on bridges carrying automobiles, other than the use of larger, stronger members. By about 1940, trusses became obsolete as large concrete and steel beams became more available (Clouette and Roth 1991; Parsons Brinckerhoff and Engineering and Industrial Heritage 2005).

The Warren and Pratt trusses favored by the department c1920-1940 had been preferred by engineers, fabricators, and public agencies since the 1890s, based on the design simplicity compared to lenticular types, the easier calculation of load capacities, and the less complicated joints. For spans of over 200 feet, however, the department typically chose updated, through-truss versions of the design patented by Charles H. Parker in 1870. Parker, a Boston mechanical engineer, recognized that the deeper truss was needed at the middle than at the end of a span, and created what has been described as a Pratt truss with a polygonal or inclined top chord and inclined end posts. His original design, in wrought and cast iron, shortened vertical and diagonal members from the center to the ends of the truss, and used less metal than a parallel chord Pratt truss of equal length. Although the varied lengths of vertical and diagonal members in each panel

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Butts Bridge, Canterbury, Windham County, Connecticut

increased fabrication and erection costs, the lighter weight of the truss offset the labor costs. By the early 20<sup>th</sup> century, economy of materials led engineers and bridge fabricators to favor riveted-steel versions of the Parker design for long spans. The steel Parker trusses have inclined endposts and polygonal top chords of straight members which change angles at panel points. The very large upper chords of Butts Bridge typify the use of bigger truss members after 1920 to address increased weight requirements as vehicles proliferated and became heavier. The arch effect of the polygonal elevation increased load capacity slightly. This example also demonstrates the increased room available for sway and upper lateral bracing with a higher center for the upper chords (Roth and Clouette 1990; Historic Resource Consultants 1991; Parsons Brinckerhoff and Engineering and Industrial Heritage 2005).

Fabrication and construction of Butts Bridge also typified the contemporary development of the bridge-building business. By the 1930s, companies emerged which specialized in designing or constructing bridges, rather than fabricating the parts and building the crossings. A.I. Savin Construction Company of West Hartford, CT built the bridge to highway department designs. Unlike many Connecticut bridges built in this period, however, the fabricator was not American Bridge Company, whose dominance had eliminated most independent bridge firms by the 1920s. The Fort Pitt Bridge Works, which developed near Pittsburgh in the late 19<sup>th</sup> century, was not absorbed by American Bridge and became perhaps the largest independent fabricator of steel structures in the United States by 1900. Originating as the Pittsburgh engineering and contracting firm of Straub and Bickle in 1894, Fort Pitt Bridge Works was formed in 1896 when Straub and Bickle took over a failing ironworks in nearby Canonsburg. The steel fabricating firm, which operated until 1981, produced the components for many bridges and buildings in the Pittsburgh area (Hawley 2001; Herron 2003, Parsons Brinckerhoff and Engineering and Industrial Heritage 2005).

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## Major Bibliographic References

## Bayles, Richard M.

1889 History of Windham County, Connecticut. New York: W.W. Preston & Co.

## Blodget, William

1792 New and Correct Map of Connecticut...Middletown.

## Canterbury Historical Society

n.d.a File, "Picture of Butts Bridge & Butts Bridge Area."

n.d.b File, "Copy of Charles Underhill's File - Butt's Bridge."

## Close, Jensen & Miller, P.C.

2005 Rehabilitation Study Report, Bridge No. 01649/State Road 668 (Butts Bridge Road) over Quinebuag River, Town of Canterbury. Report prepared for State Bridge Program, State Project No. 170-2309. Wethersfield, CT.

## Clouette, Bruce, and Matthew Roth

1991 Connecticut's Historic Highway Bridges. Connecticut Department of Transportation. Electronic version Available on World Wide Web at http://www.past-inc.org/ historic- bridges/Mainpage.html

## Connecticut Colonial Records

1762-

1767 Volume 12, page 198. Available on World Wide Web at http://www.colonialct.uconn.edu/ ViewPageByPageNew.cfm?ID=633&Volume=12&Master=131&Letter=B&v=12&p=198&c=4

## Connecticut Department of Transportation

2003 History. Available on World Wide Web at http://www.ct.gov/dot/taxonomy/ct\_taxonomy. asp? DLN=39923&dotNav=|39923|&dotPNavCtr=|40015|#40015

## Connecticut Highway Commissioner

1935-

1936 Biennial Report for Fiscal Years ended June 30, 1935 and June 30, 1936.

1936-

1937 Biennial Report for Fiscal Years ended June 30, 1937 and June 30, 1938.

## Connecticut State Highway Department

1935-

- 1936 Plan for Construction of Bridge & Approaches over Quinebaug River on the Butts Bridge Road in the Town of Canterbury. Federal Emergency Administration Public Works Project Docket No. Conn. 1238. On file, Connecticut Department of Transportation Plan File 22-13.
- 1936 Plan for Construction of Butts Bridge Road in the Town of Canterbury. Federal Emergency Administration Public Works Project Docket No. Conn. 1238 Contract B. On file, Connecticut Department of Transportation Plan File 22-14.

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## Darnell, Victor

1979 Lenticular Bridges from East Berlin Connecticut. IA: The Journal of the Society for Industrial Archeology 5, 1: 19-32.

## Fort Pitt Bridge Works

n.d. Connecticut State Highway Department/Town of Canterbury/Bridge over Quinebaug River/Erection Plan. Drawing No. E1. On file, Connecticut Department of Transportation Plan File 22-13.

### Gerrish, E. P., and others

1856 Windham County, Connecticut, From Actual Survey. Philadelphia: Woodford and Bartlett.

## Gray, O.W.

1969 Atlas of Windham and Tolland Counties... Hartford: D.G. Keeney.

## Haber, Alison Underhill (Canterbury, CT)

2007-

2008 Personal communications.

## Hawley, Haven

2001 Davis Avenue Bridge, Pittsburgh, Pennsylvania. Historic American Engineering Record, HAER No. PA-487. On file, Library of Congress. Available on World Wide Web at http://memory.loc.gov/ammem/collections/habs haer

## Herron, James T.

2003 Canonsburg Reflections: 1802-2002. Canonsburg, PA: Canonsburg Bicentennial Commission.

## Historic Resource Consultants

1991 Connecticut Historic Bridge Inventory/Final Report: Preservation Plan. Report prepared for Connecticut Department of Transportation. Hartford.

## Larned, Ellen D.

- 1874 History of Windham County, Connecticut. Vol. I. Worcester: published by the author.
- 1880 History of Windham County, Connecticut. Vol. II. Worcester: published by the author.

## McFarland-Johnson Engineers, Inc.

- 1985 Connecticut Department of Transportation Plan for Bridge Rehabilitation/Route SR-668 Bridge No. 06149 in the Town of Canterbury....State Project No. 22-94. On file, Connecticut Department of Transportation Plan File 22-94..
- Ormolosky, Alton and Eleanor (Canterbury Historical Society) 2008 Personal communications.

## Orlomoski, Amy E. and A. Constance Sear

2003 Canterbury: The First 300 Years. Charleston, SC: Arcadia Press.

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Parsons Brinckerhoff and Engineering and Industrial Heritage

2005 A Context for Common Historic Bridge Types. Prepared for The National Cooperative Highway Research Program, Transportation Research Council, National Research Council. National Cooperative Highway Research Program Project 25-25, Task 15.

Public Archaeology Survey Team, Inc.

2001 Electronic report on Berlin Iron Bridge Company. Available on World Wide Web at http://www.past-inc.org/bibco

Roth, Matthew, and Bruce Clouette

1990 Bridge 1649. State of Connecticut Department of Transportation Historic Bridge Inventory Form. On file, Connecticut State Historic Preservation Office.

## Town of Canterbury

- 1886 Annual Report for the Year Ending September 15, 1886. Plainfield: George W. Brown.
- 1914-
- 1961 Canterbury Town Minutes. Manuscript on file, Office of the Town Clerk.
- 1935 Annual Report for the Year Ending August 31, 1935. Danielson: Burroughs & Hopkins.
- 1938 Annual Report for the Year Ending August 31, 1938. Danielson: Burroughs & Hopkins.

## Wood, Frederic J.

1919 The Turnpikes of New England. Boston: Jones.

Butts Bridge	
Name of Property	

Windham, CT County and State

## 10. Geographical Data

Acreage of	Property:	approx.	0.2 acres
THAT AND A STATE			

<b>UTM References:</b>	Zone Easting Northing	Zone Easting Northing
	A 19 252570 4615100	В
	C	D
	See continuation sheet.	

## Verbal Boundary Description:

(Describe the boundaries of the property on a continuation sheet.)

## **Boundary Justification:**

(Explain why the boundaries were selected on a continuation sheet.)

# Michael S. Raber Name/Title: Michael S. Raber Organization: Raber Associates Date: April 2, 2010 Street & Number: 81 Dayton Road, P.O. Box 209 Telephone: 860-633-9026 City or Town: South Glastonbury State: CT Zip: 06073

## **Additional Documentation**

Submit the following items with the completed form:

## **Continuation Sheets**

## Maps

A USGS map (7.5 or 15 minute series) indicating the property's location

A Sketch map for historic districts and properties having large acreage or numerous resources.

## Photographs

Representative black and white photographs of the property.

## Additional items

## **Property Owners**

name	Connecticut Department of Tra	insportation	
street & numb	per 2800 Berlin Turnpike	telephone_860-594-3000	
city or town_	Newington	state zip code 06141-7546	

OMB No. 1024-0018 (Expires 1-31-2009)

United States Department of the Interior National Park Service

# National Register of Historic Places Continuation Sheet

Section number 10 Page 1

Butts Bridge, Canterbury, Windham County, Connecticut

## **Verbal Boundary Description**

The nominated property includes the bridge, abutments, and roadway.

## **Boundary Justification**

The boundary includes only the components of the extant, state-owned 1936 bridge. Privately-owned components of one or more earlier Butts Bridge crossings upstream do not contribute to the 1936 structure's principal significance as a surviving large example of a post-1920 steel Parker through truss, and are not included.

OMB No. 1024-0018 (Expires 1-31-2009)

United States Department of the Interior National Park Service

# National Register of Historic Places Continuation Sheet

Photograph Captions

Butts Bridge, Canterbury, Windham County, Connecticut

Photographer: Date of Photographs: Location of Original Files: William K. Sacco April 2006 81 Dayton Road, South Glastonbury, CT 06073

Photo 1. (CT\_Windham County\_Butts Bridge\_0001) Elevation to north, with abutments of 1886 bridge visible upstream in background.

Photo 2. (CT\_Windham County\_Butts Bridge\_0002) View northeast, with west abutment wingwall in foreground and west abutment of 1886 bridge in right-center background.

Photo 3. (CT\_Windham County\_Butts Bridge\_0003) View to west from roadway.

Photo 4. (CT\_Windham County\_Butts Bridge\_0004) View east of east abutment, bottom chords, floor beams, stringers, and lower lateral cross bracing.

Photo 5. (CT\_Windham County\_Butts Bridge\_0005) Detail northwest of fixed bearing at northeast corner, end of bottom chord, floor beam, and stringers.

Photo 6. (CT\_Windham County\_Butts Bridge\_0006) Detail north of rocker bearing at southwest corner.

Photo 7. (CT\_Windham County\_Butts Bridge\_0007) Detail southeast of truss and deck support framing at bridge center.

Photo 8. (CT\_Windham County\_Butts Bridge\_0008) Detail northwest of northwest bridge corner, with upper chord and inclined end post, end vertical post, and north end of west portal.

Photo 9. (CT\_Windham County\_Butts Bridge\_0009) Detail west of truss panels, sway frames, and upper lateral bracing at bridge center.

Photo 10. (CT\_Windham County\_Butts Bridge\_0010) Detail east of builder's plate on southwest end post.



# Figure 1. BUTTS BRIDGE LOCATION

Plainfield, Conn. U.S. Geological Survey 7.5-minute quadrangle sheet

	UTM Re	eference:
Zone	Easting	Northing
19	252570	4615100



Figure 2. PLAN OF 1936 AND EARLIER BUTTS BRIDGE ROAD AND BRIDGE ALIGNMENTS base image: Connecticut State Highway Department 1935-1936



Figure 3. ORIGINAL PLANS AND ELEVATION source: Fort Pitt Bridge Works n.d.





Figure 4. CROSS SECTIONS source: Fort Pitt Bridge Works n.d.

## UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY Butts Bridge NAME:

MULTIPLE NAME:

STATE & COUNTY: CONNECTICUT, Windham

DATE RECEIVED: 4/09/10 DATE OF PENDING LIST: 5/10/10 DATE OF 16TH DAY: 5/25/10 DATE OF 45TH DAY: 5/24/10 DATE OF WEEKLY LIST:

REFERENCE NUMBER: 10000272

REASONS FOR REVIEW:

APPEAL:NDATA PROBLEM:NLANDSCAPE:NLESS THAN 50 YEARS:NOTHER:NPDIL:NPERIOD:NPROGRAM UNAPPROVED:NREQUEST:NSAMPLE:NSLR DRAFT:NNATIONAL:N

COMMENT WAIVER: N

ACCEPT RETURN

-74. BATE REJECT

ABSTRACT/SUMMARY COMMENTS:

Entered in The National Register of Historic Places

RECOM./CRITERIA	
REVIEWER	DISCIPLINE
TELEPHONE	DATE

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.



Butts Bridge, Windham County, CT 1 of 10



Butts Bridge, Windham County, CT 2 of 10



Butts Bridge, Windham County, CT 3 of 10



Butts Bridge, Windham County, CT 4 of 10



Butts Bridge, Windham County, CT 5 of 10



Butts Bridge, Windham County, CT 6 of 10



Butts Bridge, Windham County, CT 7 of 10



Butts Bridge, Windham County, CT 8 of 10



Butts Bridge, Windham County, CT 9 of 10



Butts Bridge, Windham County, CT 10 of 10



There may be private inholdings within the boundaries of the National or State reservations shown on this map





Arts Tourism Film History

**Connecticut Commission on Culture & Tourism** 

	RECEI	VED 2280
	APR	9 2010
NAT. F	REGISTER O NATIONAL F	F HISTORIC PLACES

## MEMORANDUM

Tourism Film History	то:	Roger Reed National Register of Historic Places
One Constitution Plaza Second Floor	FROM:	Stacey Vairo, National Register Coordinator
Hartford, Connecticut 06103	DATE:	April 7, 2010
860.256.2800 860.256.2811 (f)	SUBJECT:	Butts Bridge, Canterbury, CT

The following materials are submitted for nomination of the Butts Bridge, Canterbury, CT

Connecticut to the National Register of Historic Places:

<u> </u>	_ National Register of Historic Places nomination for	
	Multiple Property Nomination form	
x	Photographs	
x	Original USGS maps	
	Sketch map(s)/figure(s)/exhibit(s)	
	Pieces of correspondence	
x	OtherCD of images	
COMMEN	TS:	

Please insure that this nomination is reviewed This property has been certified under 36 CFR 67 CONNECTIOUT The enclosed owner objections do do not www.cultureandtourism.org constitute a majority of property owners.

An Affirmative Action Equal Opportunity Employer

Other: