Form No. 10-300 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

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| CITY. TOWN | orest, Buck Hill, and | Rogers Roads | | TFOR PUBLICATION | ІСТ |
| Townshend N | · · · · · · · · · · · · · · · · · · · | VICINITY OF | | Vermont | |
| STATE | | CODE | CC | DUNTY | CODE |
| Vermont | | 50 | W | /indham | 025 |
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| CATEGORY | OWNERSHIP | STATUS | | PRES | ENTUSE |
| X_DISTRICT | PUBLIC | | | XAGRICULTURE | MUSEUM |
| BUILDING(S) | PRIVATE | | | COMMERCIAL | PARK |
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| SITE | PUBLIC ACQUISITION | ACCESSIBLE | | ENTERTAINMENT | RELIGIOUS |
| OBJECT | IN PROCESS | YES: RESTRICTED | | GOVERNMENT | SCIENTIFIC |
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| vermont | Historic Sites and Str | uctures Survey | | | · · · · · · · · · · · · · · · · · · · |
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CITY, TOWN Montpelier

7' DESCRIPTION

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DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Follett Stone Arch Bridge Historic District lies about two miles west of Townshend village along the west side of the West River; within the historic district are located four stone arch bridges built by James Otis Follett: the Fair Brook, Rogers Road, Buck Hill Road, and Negro Brook (or State Forest) bridges. Built during the period 1894-1910, the bridges carry town highways across streams flowing down the hills on the west side of the valley into the West River. Fair Brook and Negro Brook define, respectively, the northern and southern limits of the historic district. A large flat, open field used for agriculture occupies most of the area between the brooks; it is bordered on the east by the West River and on the west by the lower slopes of the forested hills.

Only a few buildings stand within the Follett Stone Arch Bridge Historic District, including principally an undistinguished farmhouse with various outbuildings situated in the field near its north end. On the northeast side of the historic district, the Scott Covered Bridge (which was entered in the National Register of Historic Places in 1973) crosses the West River, connecting the road along the west side of the river, Town Highway #4 (the State Forest or Wardsboro Road), with Vermont Route #30 along the east side of the river. Historically, Scott Bridge provided access between Townshend village and the arch bridge district; however, owing to structural deterioration, Scott Bridge is now closed to vehicular traffic.

Major alteration of the historic environment and road pattern in the immediate vicinity of the historic district occurred in 1958-61 with the construction of the huge Townshend flood control dam on the West River only a short distance upstream (northwest) of Scott Bridge. The position of the dam structure severed Rogers Road (Town Highway #38), which extended northwestward along the river from its intersection with State Forest Road (Town Highway #4) near the west portal of Scott Bridge. A new road was constructed across the dam itself to provide a connection between State Forest Road and Vermont Route #30 (which was relocated on a higher grade to the east), replacing that formerly provided by Scott Bridge.

The largest and most important stone arch bridge in the Follett Stone Arch Bridge Historic District, Town Bridge #33, carries State Forest Road across Fair Brook 0.1 mile west of its intersection with the new road across the dam and 0.7 mile west of Scott Bridge. The precise year of construction of the bridge is indefinite; the entries in the Townshend town records which list payments to Follett for the construction of bridges during the period 1894-1910 do not specify that location. The Fair Brook bridge remains basically unaltered, and continues to carry traffic.

The Fair Brook Stone Arch Bridge consists of a single span supported by a stone segmental arch, which rests partly on exposed bedrock. At its base, the arch extends 22 feet; it rises 10.5 feet above the surface of the brook. The overall width of the arch is 14 feet, giving the roadway only one travel lane for modern vehicles. At its east end, the bridge is attached to a stone abutment about eight feet wider and oriented at a slightly different angle to the brook; the abutment appears to have been constructed for an earlier bridge on the site.

Cont'd - Sheet 7 - 1

8 SIGNIFICANCE

| 3900- | COMMUNICATIONS | INDUSTRY INVENTION | POLITICS/GOVERNMENT | OTHER (SPECIFY) |
|-------------|------------------------|-------------------------|------------------------|---------------------|
| | COMMERCE | EXPLORATION/SETTLEMENT | PHILOSOPHY | XTRANSPORTATION |
| 1700-1799 | ART | XENGINEERING | MUSIC | THEATER |
| 1600-1699 | ARCHITECTURE | EDUCATION | MILITARY | SOCIAL/HUMANITARIAN |
| 1500-1599 | AGRICULTURE | ECONOMICS | LITERATURE | SCULPTURE |
| 1400-1499 | ARCHEOLOGY-HISTORIC | CONSERVATION | LAW | SCIENCE |
| PREHISTORIC | ARCHEOLOGY-PREHISTORIC | COMMUNITY PLANNING | LANDSCAPE ARCHITECTURE | RELIGION |
| PERIOD | AF | REAS OF SIGNIFICANCE CH | IECK AND JUSTIFY BELOW | |

STATEMENT OF SIGNIFICANCE

Circa 1894 - 1910

The Follett Stone Arch Bridge Historic District possesses primary significance for enclosing the locations of four stone arch bridges built by a local farmer, mason, and intuitive engineer named James Otis Follett. These bridges -- the Fair Brook, Rogers Road, Buck Hill Road, and Negro Brook bridges -- comprise nearly half of the ten extant stone arch bridges built by Follett. The precise years of construction are not known definitely for any of the bridges; however they were probably all built during the period 1894-1910 when the town records of Townshend list payments to Follett for the construction of stone bridges.

The masonry arch applied by Follett to these four bridges represents a highly unusual structure among rural secondary road bridges in Vermont, especially for having been built around the turn of the twentieth century when iron and steel had almost completely displaced wood and stone in bridge construction. The four bridges in the historic district together with five other extant stone arch bridges and one flat-topped culvert built by Follett in Townshend and nearby Putney constitute probably the largest group of such related structures in the state. (An eleventh bridge built by Follett -- and the only one with two arch spans -- survives in Walpole, New Hampshire.)

Born in nearby East Jamaica in 1843, Follett lived and worked most of his life on a farm in Townshend. Among other public activities, he served the town for several years as road commissioner, being responsible for the maintenance and improvement of its public highways. During the 1890's, Follett seems to have shifted his vocational emphasis from farming to masonry. The first known entry of payment to Follett for the construction of a "stonebridge" appears in the Townshend town records in 1894. Thereafter, Follett built one or two bridges almost every year until his death in 1911, creating substantial yet inexpensive structures to meet the needs of at least three small rural towns. Additionally, he constructed foundations for buildings and abutments for wood covered bridges, including in 1900 a center pier for the famous Holland Bridge (demolished in 1952) across the West River in Townshend.

The total number of bridges built by James Otis Follett is not known definitely. A grandson. Robert Follett of Ascutney, Vermont, estimates that he may have built about forty bridges. Entries in the Townshend and Putney records list payments to Follett

Cont'd. -Sheet 8 - 1

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Derry, Anne. James Otis Follette (sic), Bridgebuilder. Unpublished manuscript prepared for Graduate Program in Restoration and Preservation of Historic Architecture, Columbia University, New York, New York, 1975.

Notes from interview of Robert Follett, Ascutney, Vermont by Michele Frome on 9 July 1976.

10GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY <u>approx. 160 acres</u> UTM REFERENCES

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VERBAL BOUNDARY DESCRIPTION

The boundary of the Follett Stone Arch Bridge Historic District begins at a Point A at the intersection of the channel centerlines of the West River and Fair Brook; thence it proceeds southeasterly (downstream) along the channel centerline of the West River to a Point B, 25 feet north of the north elevation of Scott Covered Bridge; thence it turns northeasterly and encloses the east end of the bridge superstructure by lines parallel to, and 25 feet from, its perimeter, returning to intersect the channel

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| Hugh H. Henry, Historic ORGANIZATION | Sites Researcher | DATE |
| Vermont Division for H | istoric Preservation | September 20, 1976 |
| STREET & NUMBER | | TELEPHONE |
| Pavilion Building | | 802-828-3226 |
| CITY OR TOWN | · · · · · · · · · · · · · · · · · · · | STATE |
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| - | clusion in the National Register and cer ne National Park Service. | Preservation Act of 1966 (Public Law 89-665), I tify that it has been evaluated according to the Multipliam B. Pinney |
| | storic Preservation Officer | DATE <u>September 20, 1976</u> |
| OR NPS USE ONLY I HEREBY CERTIFY THAT THIS PF | OPERTY IS INCLUDED IN THE NATION | / IAL REGISTER |
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KEEPER OF THE NATIONAL REGISTER

DIRECTOR, OFFICE OF ARCHEOLOGY AND

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ATTEST:

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UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

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The arch itself is built mostly of thin slabs of fieldstone laid on edge and mortared into place, with larger blocks used toward the base. The spandrels of the arch are infilled with uncoursed fieldstone laid dry, the whole being overlaid with gravel to form the road surface. Makeshift log guardrails have been added to the sides of the roadway. The wing walls at the west end of the span and the older abutment at its east end are built of partly coursed fieldstone laid dry. In 1936, a concrete footing was poured at the west base of the arch, and the southeast corner of the arch was faced with concrete; much of the latter has since broken away.

The Fair Brook bridge has suffered a certain amount of structural deterioration. Several pieces of softer stone, especially on the east side of the arch, have begun to fracture and crumble, possibly having been crushed by the weight of heavy vehicles crossing the bridge. At the southeast corner of the arch, some rocks have dislodged both from the edge of the arch and the contiguous embankment, exposing the arch to additional erosion. The structural integrity of the arch has clearly been impaired by these developments. The Town of Townshend now plans to replace the bridge, either by demolition of it and construction of a new bridge on the same site or by abandonment of it and construction of a new bridge on a new alignment of the road.

In a wooded area about 0.2 mile northwest of Scott Bridge along the disused Rogers Road stands Town Bridge #18, one of the smaller stone arch bridges built by James Otis Follett. This bridge crosses a dry flood channel of Fair Brook about 100 feet south of the main channel. The precise year of its construction is indefinite, for the Townshend records do not specify its location. The bridge remains structurally sound but no longer carries any traffic.

The Rogers Road Stone Arch Bridge consists of a single span supported by a stone segmental arch. At its base, the arch extends 10 feet; it rises only 3.5 feet above the bed of the flood channel. The overall width of the arch is 16 feet. The arch is built of roughly cut granite slabs which are mortared into irregular courses. The spandrels and contiguous wing walls are built of uncoursed rubble stone laid dry, the whole being overlaid with gravel to form the road surface.

The similar Town Bridge #15 carries Buck Hill Road (Town Highway #42) across an unnamed and intermittent brook at the base of a forested hillside 0.2 mile south of Scott Bridge. The precise year of its construction is indefinite. The bridge remains structurally sound but carries only occasional logging and other vehicles on a seldom-used road.

The Buck Hill Road Stone Arch Bridge consists of a single span supported by a segmental stone arch. At its base, the arch extends 7.5 feet; it rises only 3 feet above the bed of the brook. The overall width of the arch is 15 feet, giving the roadway only one

Cont'd. - Sheet 7 - 2

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

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CONTINUATION SHEET

ITEM NUMBER 7 PAGE 2

lane of travel for modern vehicles. The arch is built of roughly cut granite slabs which are mortared into irregular courses. The spandrels of the arch are infilled with uncoursed rubble stone laid dry, the whole being overlaid with gravel to form the road surface.

The fourth stone arch bridge in the historic district, Town Bridge # 28, carries State Forest Road (Town Highway #4) across Negro Brook about 0.4 mile southeast of Scott Bridge and next to the west driveway of the Townshend State Forest headquarters. The precise year of its construction is indefinite. The Negro Brook bridge remains structurally sound, and continues to carry local traffic.

The Negro Brook Stone Arch Bridge consists of a single span supported by a segmental stone arch. At its base, the arch extends 15 feet; it rises 5 feet above the surface of the brook. The overall width of the arch between the faces is 14.5 feet, giving the roadway only one travel lane for modern vehicles. The arch itself is built mostly of roughly cut granite slabs which are mortared into irregular courses. The spandrels of the arch and the low wing walls at the east end of the bridge are built of uncoursed rubble stone laid dry, the whole overlaid with gravel to form the road surface. Makeshift log guardrails have been added to the sides of the roadway.

At least three other stone arch bridges built by James Otis Follett are known to have existed within relatively short distances from the Follett Stone Arch Bridge Historic District. One of the bridges stood west of the present Fair Brook bridge in the so-called Barber District, carrying the same road (Town Highway #4) over the same brook. Another stood on the same road in the opposite direction, about 2.25 miles southeast of the historic district. The third stood on a side road in the large meadow along the West River to the east of the State Forest entrance. These three bridges have been demolished and replaced at various times. CONTINUATION SHEET

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for a total of about twenty bridges and culverts built on public highways in those two towns. The Townshend records indicate about thirteen bridges, including at least one culvert, between 1894 and 1910; six of the arch bridges, including the four in the historic district, still stand.

Although Follett lacked formal training in engineering, apparently he did consult a popular engineering text of the period, A Treatise on Masonry Construction by Tra Osborn Baker. A copy of the ninth edition, published in 1899 and apparently used by Follett, remains in the possession of the Follett family. The book describes methods of constructing stone arch bridges; however it is not known to what extent Follett actually depended on the book in his work, for he built at least four bridges in Townshend prior to the publication of his copy of the Baker text.

Whatever the source of his skill, Follett succeeded in building durable and handsomely crafted bridges. Some of them, including the three active bridges in the historic district, now carry truck loads which Follett could not have imagined, yet it has not been necessary to alter or reinforce them significantly. None of his bridges is known to have failed structurally; floods have destroyed some of them by undermining their foundations.

Complementing their structural integrity, the Follett bridges possess distinctive aesthetic qualities in their individual variations of the arch form and stone material. The Fair Brook bridge in the historic district holds particular distinction in this respect. The only surviving Follett bridge the arch of which is built of thin fieldstone slabs, the Fair Brook bridge displays one of the finest architectural designs and stands in perhaps the most beautiful physical setting among the eleven bridges.

Currently the greatest general threat to the surviving Follett bridges is inadequate maintenance, both of the active and disused ones. In fact, in the case of the outstanding Fair Brook bridge, actual demolition is now being considered rather than repair of its somewhat deteriorated structure. The indifferent treatment of the Follett bridges derives partly from their inconspicuous locations on back roads, which tends to keep them from becoming more widely known and appreciated by the public.

Taken together, the surviving bridges constructed by James Otis Follett constitute a highly representative and intact record of the work of an extraordinary native builder. At the same time, the bridges belong among the last structures of their kind in Vermont. In response to the outstanding nature of these historic resources, the Historic American Engineering Record plans to conduct field surveys and systematic recordings of the remaining bridges. The Follett bridges deserve immediate public recognition and careful preservation to ensure the continued survival of this unique legacy from late nineteenth century rural Vermont. **CONTINUATION SHEET**

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centerline of the West River at a Point C, 25 feet south of the south elevation of said bridge: thence it turns southeasterly (downstream) along the channel centerline of the West River and proceeds to a Point D at the intersection of the channel centerline of Negro Brook; thence it turns southwesterly (upstream) along the channel centerline of Negro Brook and proceeds to a Point E, 25 feet north of the north face of the Negro Brook Stone Arch Bridge (Townshend Bridge #28); thence it turns southeasterly and encloses the east end of the bridge masonry by lines parallel to, and 25 feet from, its perimeter, returning to intersect the channel centerline of Negro Brook at a Point F, 25 feet south of the south face of said bridge; thence it turns northwesterly and proceeds in a straight line to intersect the channel centerline of Fair Brook at a Point G, 25 feet southwest (upstream) of the south face of Fair Brook Stone Arch Bridge (Townshend Bridge #33); thence it turns westerly and encloses the west end of the bridge masonry by lines parallel to, and 25 feet from, its perimeter, returning to intersect the channel centerline of Fair Brook at a Point H, 25 feet northeast of the north face of said bridge; thence it turns northeasterly (downstream) and proceeds along the channel centerline of Fair Brook to the point of beginning at the intersection of said channel centerline and that of the West River.



FOLLETT STONE ARCH BRIDGE HISTORIC DISTRICT

TOWNSHEND, VERMONT

Not To Scale

September 1976

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Key:

| #1 | | Fair Brook Stone Arch Bridge |
|----|---|----------------------------------|
| #2 | | Rogers Road Stone Arch Bridge |
| #3 | | Buck Hill Road Stone Arch Bridge |
| #4 | - | Negro Brook Stone Arch Bridge |
| #5 | | Scott Covered Bridge |
| | - | Boundary of Historic District |