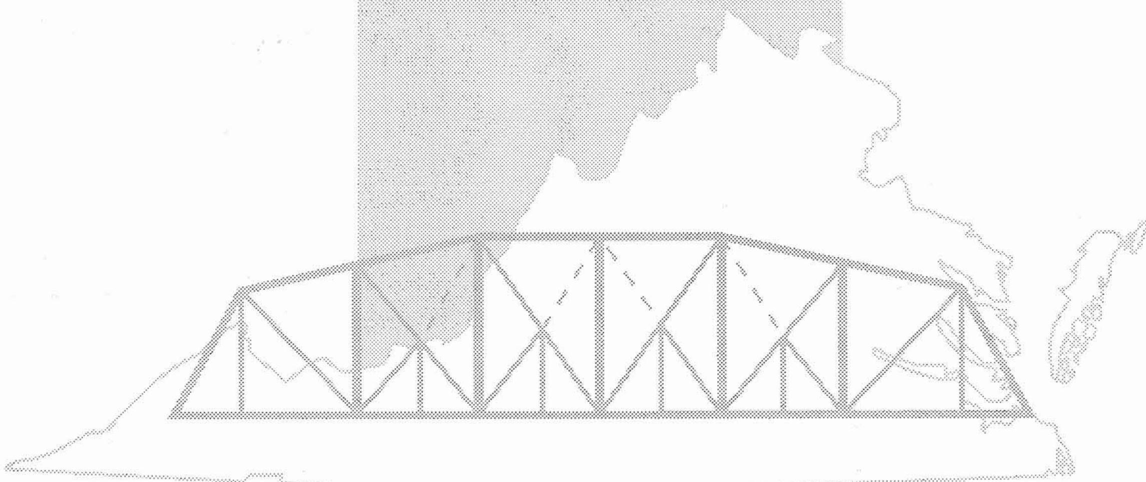
FINAL REPORT

SURVEY OF METAL TRUSS BRIDGES IN VIRGINIA



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16. Abstract

Bridges are among the cultural resources that must be considered for historical significance under the Historic Preservation Act of 1966. The Virginia Transportation Research Council conducted a pioneering study of Virginia's pre-1932 metal truss bridges during the 1970s, but no comprehensive study of later bridges was undertaken. This study rectified the lack of information on post-1932 metal truss bridges and established an historical context for all of Virginia's metal truss bridges.

The project consisted of a field survey, documentary research into truss bridge types, data tabulation, and comparison of the resulting information on truss bridge chronology and technology from the mid-19th century to the present. The data were evaluated for historical significance by the Historic Structure Task Group (an interdisciplinary historic transportation study committee) and the State Historic Preservation Officer. Of 245 extant metal truss bridges under VDOT ownership, 32 were found eligible for the National Register of Historic Places. This project identified Virginia's significant metal truss bridges and cleared the remainder for necessary maintenance and upgrade.

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(The opinions, findings, and conclusions expressed in this report are those of the authors and not necessarily those of the sponsoring agencies.)

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DEDICATION

This report is dedicated to the memory of

Daniel D. McGeehan (1939-1996)

Senior Research Scientist, Virginia Transportation Research Council

1969-1995

ABSTRACT

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INTRODUCTION

Reliable bridges are an essential and integral component of a safe transportation system. However, as the age of our transportation system increases, many bridges are becoming obsolete. This obsolescence is a product of natural deterioration, the materials used in construction, and earlier design standards that can no longer accommodate the speed, dimensions, and volume of modern traffic demands. But in addition to these issues, there is another factor to be considered in the case of older bridges: under the National Historic Preservation Act, older bridges being considered for upgrading or replacement must be evaluated for historical significance. Basically, the question is which bridges are "historically significant," i.e., those that provide valuable information about our cultural heritage, including architectural uniqueness, innovations in engineering, and the evolution of the transportation system, and which bridges are just "old."

Metal truss bridges, a commonly used bridge technology in Virginia from the later 19th century to the mid-20th century, are especially vulnerable to structural deterioration and the obsolete design standards in force when most of them were first built. A number of in-service truss bridges even pre-date the automotive era and were designed to carry light horse-drawn vehicles. With the numerous configurations and decorative and technical elements demonstrated by the different types and ages of metal truss bridges, these bridges have also been subject to confusion concerning whether or not certain trusses are historically significant. More than any other bridge type, picturesque metal truss spans have evoked strong emotions from various individuals and groups. Nostalgia has become entangled with, and has produced, the perception of historical significance, whether or not the bridge has actual historical significance. Such situations have frequently been compounded by a lack of documentary evidence on the specific bridge in question, the bridge type, and metal truss bridges in general.

This study sought to remedy the lack of available information and settle questions of historical significance concerning metal truss bridges owned by the Virginia Department of Transportation (VDOT). For the purposes of this study, *survey* was used in the historical preservation sense, indicating an inventory of physical characteristics and historical backgrounds of particular types of structures, i.e., metal truss bridges.

This project continued the survey of metal truss bridges begun by the Virginia Transportation Research Council (VTRC) during the 1970s by Dan Grove Deibler and completed by Paula A. C. Spero. It was the first statewide survey of historical bridges carried out in the United States. During that study, Virginia's truss bridges constructed prior to 1932 were surveyed, inventoried, and analyzed. This provided coverage of truss bridges constructed prior to the 1932 consolidation of the state and county road systems under the State Department of Highways. Both metal truss and the few surviving timber truss structures were recorded in this survey; the nine reports relating to this survey included a history of the development of the truss form and reports covering the eight then-existing VDOT construction districts (Diebler, 1975a-c, 1976a & b; Spero, 1979, 1980, 1981, 1982).

This study, carried out in 1995-96, brought the survey forward from 1932 and also updated the previous survey. Of the more than 500 pre-1932 truss bridges covered in the 1970s survey, less than half now survive; the rest fell either to environmental forces, physical stress or deterioration, or necessary upgrades to ensure the safety of the traveling public.

PURPOSE AND SCOPE

The purpose of this project was to identify and categorize metal truss bridge structures within VDOT's transportation system and to determine which were historically significant. This project built on the information gathered during VTRC's 1970s survey of pre-1932 metal truss bridges.

The project had three objectives:

1. Update the information on pre-1932 metal truss bridges included in the earlier survey.

2. Extend the survey to include Virginia's post-1932 metal truss bridges.

3. Provide a comprehensive comparison and evaluation of all surviving metal truss bridges in Virginia and determine which are historically significant. Those identified as significant could be incorporated into an historical bridge management system, preserving some and documenting others, thus conscientiously managing our historical resources.

RESEARCH DESIGN AND METHODOLOGY

The research design for this project followed closely that of the successful non-arched concrete bridge survey done through VTRC in 1992-96. An inventory of metal truss bridges in

Virginia was obtained from the VDOT bridge files, using Supernatural to query the HTRIS database. The inventory was broken down by construction district and, more minutely, by county within each construction district. Bridges were located on county maps, and each bridge was field surveyed to obtain all data deemed necessary to describe the bridge and evaluate its historical significance. This information was collated for presentation to an interdisciplinary study committee, which reviewed and evaluated the information from this survey to determine the most historically significant metal truss bridges in Virginia.

The research design included the following tasks:

1. Use an existing interdisciplinary group to aid in conducting the study. The National Register program is the recognized basis for making decisions concerning historical significance. Generally, to be considered historically significant, a structure must be 50 years of age or older and fulfill one or more of the following criteria: is associated with events or with the lives of persons significant in our past; embodies a distinctive characteristics of a type, period, or method of construction; represents the work of a master; has high artistic value; or has yielded, or may be likely to yield, information important in history or prehistory. For the evaluation of the metal truss bridges based on these criteria, a preexisting committee, the Historic Structures Task Group, was used. This interdisciplinary group includes members with backgrounds in engineering, history, archaeology, and architectural history and represents VTRC, VDOT, the Department of Historic Resources, and the Federal Highway Administration (FHWA).

2. Establish the historical period of bridge construction to be studied. The previous survey of Virginia's metal truss bridges, done through VTRC in the 1970s, included only those bridges built prior to 1932. Since a structure generally has to be at least 50 years old to be considered historically significant, a field survey had to cover all structures 50 years and older to yield information useful for determining potential historical significance. Since the majority of metal truss bridges in Virginia were constructed prior to 1950, and fewer than a dozen later trusses also exist, it was decided to include all trusses in the survey. The resulting data provided the information for comparison of all extant metal truss bridges/truss bridge technology in Virginia (not merely those built prior to 1932) and removed the need for additional survey work on metal truss bridges in Virginia.

3. Select the geographic area to be studied. To complete a comprehensive survey and evaluation of Virginia's metal truss bridges, it was decided that all such bridges in all VDOT construction districts had to be studied.

4. Generate an inventory of all metal truss bridges currently on-system. VDOT's Structure & Bridge Division supplied a comprehensive inventory of bridges in each construction district throughout the state. Bridges on this inventory were located on county maps for use in the survey.

5. Decide upon the data to be obtained for each site. A standardized survey/inventory form for metal truss bridges used during the 1970s survey was updated for use in this survey (Appendix A). A supplementary form was used in cases where previous survey data existed; when no previous survey had been done, the updated form based on the earlier form was used. The information to be gathered included:

- geographic location
- engineering profile, including designer (if known), builder (if known), date of construction, date of reconstruction, design and technological data, physical description, photographic documentation of bridge, etc.
- historical context, including photographs of associated buildings and surroundings, documentation of historical relevance, etc.

6. Conduct the survey. Several teams, each consisting of a researcher and a technician, conducted the survey. Prior to the commencement of the study, field trips were made to bridges previously identified as historically significant. These field trips were intended to train the team members more fully in the practices associated with metal truss bridge survey techniques, including recognition of bridge types, structural elements, and terminology. In addition, other documentary evidence, including the corresponding VDOT bridge files for each structure, was reviewed; construction and inspection data were identified and added to the field survey information.

7. Organize the field and documentary data. The information was organized by bridge type, date, and historical background by members of the survey teams and was then presented to the Historic Structures Task Group. To facilitate comparison and evaluation of the bridges, these categories included:

- county/city code
- bridge number
- route
- construction date
- truss type
- connection type (e.g., pinned or riveted)
- total number of bridge spans

- length
- bridge plan information
- designer/builder information.

8. Evaluate the bridges for historical significance. Using the data from the field survey and associated historical research, the Historic Structures Task Group met on several occasions in late 1996 and evaluated the 245 surveyed bridges for eligibility for the National Register of Historic Places.

HISTORICAL BACKGROUND AND OVERVIEW

Construction Districts

Until the early 20th century, road and bridge construction was under the almost exclusive control of the counties in which they were located. Virginia's highway construction districts came into existence as a result of the 1922 departmental organization. Earlier attempts to develop construction "divisions" in Virginia had failed primarily because of the shortages and disruptions in materials and manpower imposed by World War I. The establishment of the 1922 construction districts likely grew out of the needs of the state highway system, created in 1918.

VDOT currently has nine construction districts: Staunton, Culpeper, Northern Virginia (NOVA), Fredericksburg, Suffolk, Richmond, Lynchburg, Salem, and Bristol (see Figure 1).

The Staunton District encompasses the Shenandoah Valley north of the James River and Highland, Bath, and Alleghany counties. As created in 1922, the district also encompassed Albemarle County (later made a part of the Culpeper District). The district currently includes the counties of Frederick, Clarke, Warren, Shenandoah, Page, Rockingham, Augusta, Rockbridge, Highland, Bath, and Alleghany.

The Culpeper District encompasses the north central Piedmont. As created in 1922, it encompassed the counties of Fluvanna, Louisa, Orange, Greene, Madison, Culpeper, Rappahannock, Fauquier, Prince William, Loudoun, Arlington, and Fairfax. Two changes have occurred since its inception. Albemarle County, which was originally a part of the Staunton District, is now a part of the Culpeper District. The intensive urbanization and attendant population growth in northern Virginia in the last half of the 20th century produced the need for the division of the district in the 1980s: the counties of Prince William, Loudoun, Arlington, and Fairfax were cut off into the new Northern Virginia (NOVA) District in 1984. The Culpeper District currently covers the counties of Albemarle, Fluvanna, Louisa, Orange Greene, Madison, Culpeper, Rappahannock, and Fauquier.

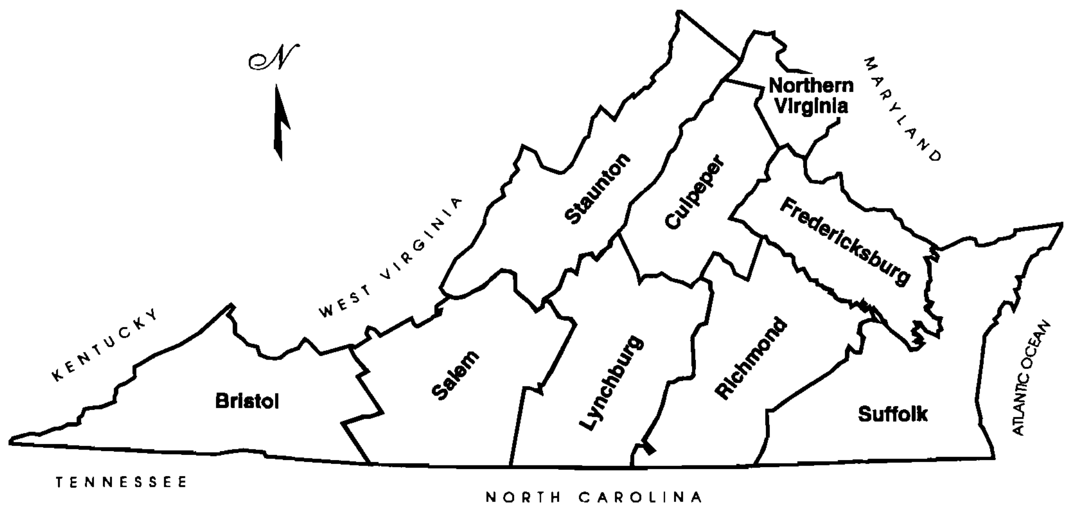

Figure 1. VDOT's Current Construction Districts

The NOVA District includes the counties of Loudoun, Prince William, Arlington, and Fairfax.

The Fredericksburg District includes the region south of the Potomac River and north of the York and its branches: the counties of Stafford, King George, Westmoreland, Northumberland, Lancaster, Richmond, Gloucester, Mathews, Middlesex, Essex, King William, King and Queen, and Spotsylvania.

The Suffolk District encompasses southeast Virginia and the Eastern Shore. At its formation in 1922, it contained the counties of James City, York, Warwick, Elizabeth City, Princess Anne, Norfolk, Nansemond, Accomack, Northampton, Isle of Wight, Southampton, Surry, Sussex, and Greensville. After World War II, the old counties of Warwick, Elizabeth City, Princess Anne, Norfolk, and Nansemond underwent intense urbanization and development as industrial and recreational centers. These counties eventually ceased to exist, becoming the independent cities of Newport News, Hampton, Virginia Beach, Chesapeake, Norfolk, Portsmouth, and Suffolk. This produced two distinct regions within the district: the highly urban southeastern section and the primarily rural Eastern Shore and counties west of Suffolk.

The Richmond District contains the counties of Goochland, Hanover, New Kent, Charles City, Henrico, Powhatan, Chesterfield, Amelia, Nottoway, Dinwiddie, and Prince George.

The Lynchburg District includes the south-central portion of Virginia: the counties of Nelson, Buckingham, Cumberland, Appomattox, Prince Edward, Campbell, Charlotte, Pittsylvania, and Halifax.

The Salem District contains the counties of Botetourt, Bedford, Craig, Roanoke, Montgomery, Giles, Pulaski, Floyd, Franklin, Henry, Patrick, and Carroll.

The Bristol District encompasses southwestern Virginia. It contains the counties of Grayson, Wythe, Bland, Tazewell, Smyth, Washington, Russell, Buchanan, Dickenson, Wise, Scott, and Lee.

Metal Truss Bridge Technology and Construction

Bridge technology and construction was minimal in most regions of 17th and 18th century Virginia. Fords served for crossing most streams and rivers, and wet or marshy places were frequently traversed by causeways (raised roads or pathways). Broad rivers were typically crossed by ferries. In the few areas where these methods would not suffice, simple timber bridges were commonly used. These timber bridges took the form of basic beam bridges and the most rudimentary and traditional wooden trusses (e.g., king post and queen post). Stone bridges, expensive and time-consuming to build, were virtually unknown.

The 19th century saw the advent of a number of improved timber truss bridges, including patented varieties such as the Town lattice truss and the Long panel truss and the combination wood-and-iron Howe truss patented in 1840 (Deibler, 1975a). A few early 19th century stone lintel or arched masonry bridges were also constructed, primarily as turnpike bridges, but stone construction generally remained prohibitive in terms of cost and time (Newlon, 1973).

Metal truss bridges were first developed in the 1840s and 1850s, although they did not appear in many areas of Virginia until the 1870s. The accounts of the Tredegar Iron Works in Richmond indicate that Tredegar iron had been used in railroad bridge fabrication beginning in the mid-1840s and into the 1850s by companies as far north as Massachusetts and as far southwest as Tennessee (Bruce, 1931). Other Tredegar records indicate that the firm fabricated a number of iron truss bridges (primarily of the Fink and Bollman truss designs, along with iron components for Howe trusses) in the period 1859 to 1866, but these were railroad bridges. Most of these were shipped out of state, although a few were erected in Virginia, notably for such entities as the James River & Kanawha Canal and the Orange & Alexandria Railroad (J.R. Anderson Company/Tredegar Iron Works Contract Books, 1859-1866). The use of metal truss bridges for vehicular use seems to have begun in Virginia after the Civil War.

Metal truss bridges began to supersede wooden trusses in Virginia during the last quarter of the 19th century. Since most varieties of wooden bridges needed constant maintenance, and still deteriorated quickly, metal truss bridges were seen as a more long-lasting solution. For short beam bridge spans (under 40 feet), bridges with iron or steel I-beams instead of wooden beams began to gain popularity, either used alone or as approach spans to metal truss bridges. Wooden planks, still used in the decking for metal truss and metal beam bridges, were the last wooden elements used in these bridges. Wooden beam bridges and wooden trusses continued to be erected in Virginia, although in decreasing numbers and increasingly confined to more remote rural areas, well into the first decades of the 20th century. However, in more populous areas and for major roads, the older wooden bridges were being supplanted by more modern technology.

A major drawback of metal truss bridges compared to timber trusses or steel beam bridges, besides their greater initial construction costs, was that they still required periodic maintenance, particularly painting, and the cost of upkeep was often perceived as a drain on county budgets. It was common practice among county governments to delay or ignore what should have been routine maintenance on metal bridges in an effort to stretch dollars, with resultant deterioration and damage to the bridges. It is a testimony to the construction of many of these early metal truss bridges that they lasted as long as they did.

By the early 20th century, reinforced concrete bridges were beginning to be used as a more maintenance-free and long-lived alternative to wooden and metal truss bridges. They were perceived, and described in early publications, as "permanent bridges" that would require little or no maintenance, in contrast to the upkeep required by wooden and metal truss bridges. In Virginia, as well as the nation, the use of reinforced concrete technology grew steadily through the first three decades of the 20th century to eventually become the dominant bridge type.

Concrete quickly came to play a major role even in metal truss bridge construction. Abutments and piers for truss bridges were commonly constructed of stone masonry during the 19th century. However, by the end of the first decade of the 20th century, concrete was supplanting the traditional stone masonry for the substructures of metal truss bridges, and by the end of the 1910s, this transition was virtually complete. A concrete slab deck appears on a 1920 standard metal truss bridge plan instead of the traditional wooden decking, and by the mid-1920s, concrete decks were being specified for all of Virginia's standard truss bridge plans.

Metal truss bridge plans were standardized in Virginia after 1909. The construction of new metal truss bridges continued through the 1940s, and a few new trusses were built after 1950, but metal trusses became increasingly a less-favored and more specialized form of bridge design. By the mid-20th century, the moving and re-erection of older metal truss spans was more common than new metal truss construction. Older truss bridges on major highways were often replaced by more modern bridges as traffic increased and the roads were improved; the still-serviceable truss spans were frequently relocated to less-traveled back roads.

VDOT records list 28 in-service metal truss bridges as being constructed in the 1950s and 1960s. However, upon closer examination, it was determined that only 7 of these bridges were constructed during this period. The dates given for the other 21 are actually the years in which the bridges were moved and re-erected on their present sites. These re-erection dates do not represent the original construction dates.

Truss Types

The metal truss bridge is perhaps the only historical bridge type that was primarily an American development. However, although a myriad of truss types were patented during the

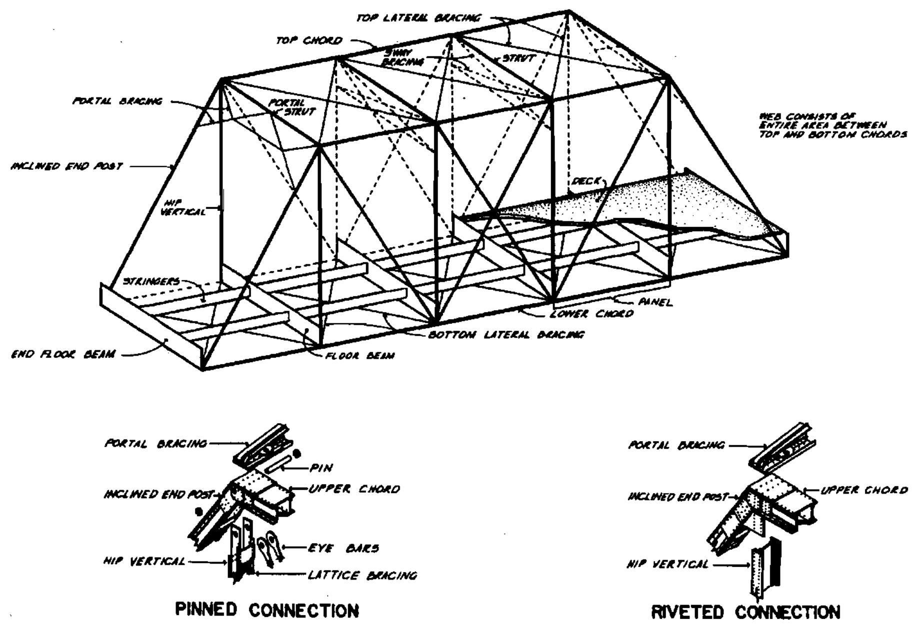

Figure 2. Truss Bridge Terminology. *Courtesy of Historic American Engineering Record.*

19th century, few left a permanent mark on bridge building in the United States, and fewer still on Virginia.

Truss bridges are composed of specific components, which share some general terminology (see Figure 2). The bottom chords and top chords are the horizontal members at the lower and upper elevations of the bridge. These are connected by the verticals and diagonals, which are arranged in various configurations. The area between each vertical is known as a panel. The end posts, which can be either straight (vertical) or inclined, are the outermost members. Floor beams and stringers support the deck, the surface that carries traffic. Bracing connects chords (and sometimes chords and verticals), and struts connect the top chords of through trusses at panel points (the intersection of a chord and a floor beam).

All truss bridges are of one of three designs. A through, or high, truss carries its traffic load level with its bottom chords and has lateral bracing between the top chords. A pony, or low, truss also carries its traffic load level with its bottom chords, but it has no lateral bracing between the top chords and generally has lower sides than a typical through truss. A deck truss carries its traffic load level with its top chords (see Figure 3).

Components for the metal truss bridges were first made of iron, and later of steel. Standard I-beams and bars were the norm, although one other type of construction element is known in Virginia: the patented Phoenix column, developed by the Phoenix Bridge Company of Pennsylvania, which featured modular elements riveted together to form the major members (see

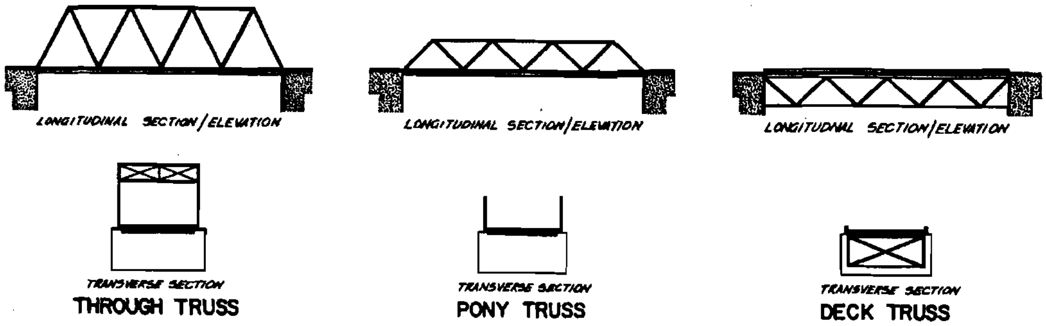

Figure 3. Through, Pony, and Deck Trusses. *Courtesy of Historic American Engineering Record.*

Figure 4. Detail of Patented Phoenix Column (Botetourt County Structure No. 6386)

Figure 4). Although still numerous in Pennsylvania, truss bridges with Phoenix columns are uncommon in Virginia; only five were identified in this survey.

Connection details are important descriptive and technological factors in metal truss bridges. Pinned connections were the most common types of truss connections in the 19th and early 20th centuries. Rigid connections (usually riveted), first introduced after the Civil War, were initially used in railroad bridges. Gradually, riveted connections increased in popularity for highway bridges as well, particularly as vehicular loads became larger and greater stability was desired. Rigid connections became the dominant bridge connection technology from the 1920s onward.

Sources of Information

A general history of truss types was published by VTRC as part of the 1970s truss bridge survey (Deibler 1975a). The Historic American Engineering Record (HAER) published a poster of truss bridges. Many of the diagrams from the poster are provided in Appendix B. The HAER graphics were also used in the Association for State and Local History's technical Leaflet No. 95 (1977). A comprehensive guide to early bridge companies was written by Darnell (1984). Given the availability of such sources, a brief overview of truss types is given here.

Description of Types

The last half of the 19th century saw the advent of a large number of metal truss configurations, although on closer examination most of these are revealed as variations of the Pratt, the Warren (the two most numerous truss configurations), the Bowstring Arch-Truss, and the Bollman or Fink (now the rarest configurations).

The Pratt. Elaborations on the basic Pratt configuration include the Baltimore (Petit) truss (a Pratt truss with sub-struts or sub-ties) and the Kellogg truss (a Pratt truss with additional diagonals running from the top chords panel points to the center of the lower chords). Although widely advertised for railroad use in the late 19th century, no examples of the Kellogg truss apparently survive in the United States. The double-intersection Pratt truss, also known as the Whipple, Whipple-Murphy, or Linville truss, was a Pratt truss with diagonals extended across two panels. Not surprisingly, the triple-intersection Pratt, similarly, had diagonals extending across three panels. Pratt variations with polygonal top chords include the Parker truss (a Pratt with a polygonal top chord), the Camelback truss (a Parker with a polygonal top chord of exactly five slopes), the Lenticular, or Parabolic, truss (a Pratt truss with parabolically curved top and bottom chords), and the Pennsylvania (Petit) truss (a Parker truss with sub-struts or sub-ties).

The Warren. The most common variation on the basic Warren configuration is the Warren with verticals (a Warren truss with a vertical bracing member either at each panel point or at alternate panel points). Less common within this group are Warren trusses with polygonal top chords. Two other Warren variations are not represented among Virginia's vehicular bridges: the double-intersection Warren truss had diagonals extending across two panels; the triple-intersection Warren had diagonals extending across three panels (also known as lattice trusses, triple-intersection Warrens resemble the earlier Town lattice trusses in outline, but not in operation).

The Bowstring Arch. One of the earliest trusses in widespread use for vehicular traffic was the bowstring arch-truss. The earliest bowstring truss was patented by Squire Whipple in 1841. Although resembling a Pratt configuration in outline, the bowstring truss acts differently than a standard Pratt truss: in lieu of top chords, tied arches form the upper portion of the bridge; the verticals support the deck, and diagonals act as bracing. There are numerous patented

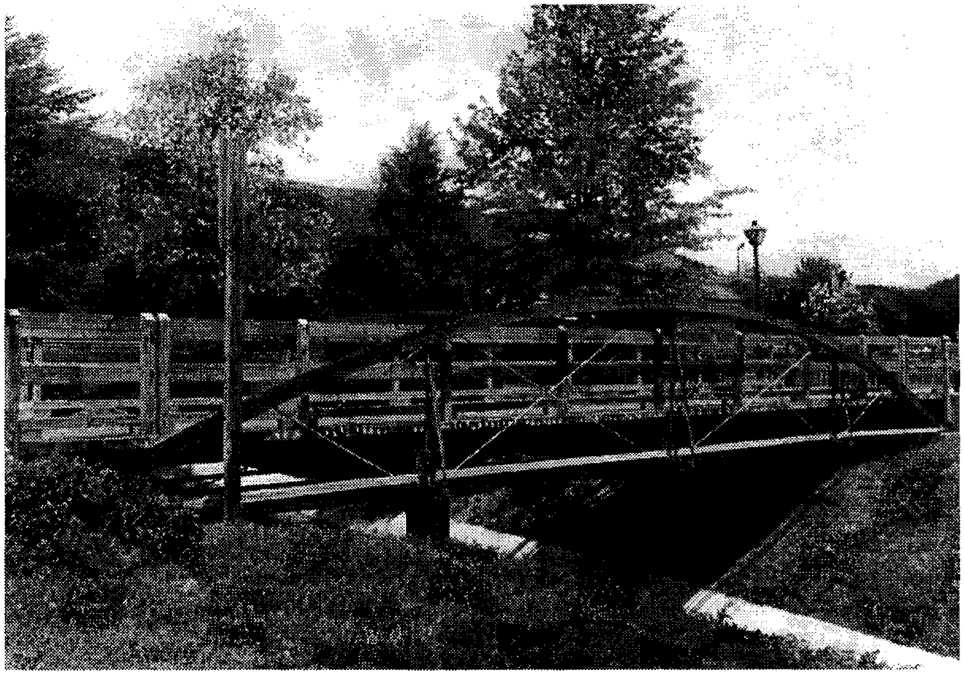

Figure 5. Pony Bowstring Arch Truss Built in 1878. Now at Ironto Wayside, Montgomery County.

variations on the basic bowstring design. One bowstring arch truss, a pony truss built in 1878, survives in Virginia. Originally located in Bedford County, it was removed from vehicular service in the 1970s and now serves as a footbridge at the Ironto Wayside in Montgomery County, where it is well maintained and furnished with appropriate signage (see Figure 5).

The Fink. The Fink truss, the similar Bollman truss, and the simplified Fink variations of the Stearns truss and Thacher truss have all but disappeared. The only Fink deck truss known to survive in the United States, originally a railroad bridge and later adapted to vehicular traffic, was previously located in Bedford County, Virginia. Identified and preserved as a result of VTRC's 1970s truss survey, it was removed from service and moved to the nearby city of Lynchburg, where, under the ownership of the city, it now serves as an interpretive exhibit in Riverside Park. No longer a VDOT bridge, it was declared a National Historic Civil Engineering Landmark by the American Society of Civil Engineers (ASCE) in 1979. Although this truss was not within the purview of this survey, it is mentioned here because of its extreme rarity.

Other truss variations. Only a few other Virginia truss bridges are unique examples, either within the state or in a wider area. An odd bridge configuration, represented by only one example in Virginia, is the small Lane patent pony truss at McDowell in Highland County (Highland County Structure No. 6034). Built in 1896, it is no longer open to vehicular traffic but serves foot and bicycle traffic crossing over Crab Run. Conforming to no conventional truss configuration, it is a patent design fabricated by the Lane Bridge Company in Painted Post, New York (Darnell, 1984). The Lane patent design used railroad (or trolley) rails, U-bolts, and round

Figure 6. Lane Patent Pony Truss, Built in 1896 (Highland County Structure No. 6034)

tension rods instead of standard bridge components. The company, which was in operation from ca. 1890 until 1901, also fabricated conventional trusses. The Lane patent truss at McDowell was constructed by the West Virginia Bridge Works, a contracting company that had offices in Wheeling and Charles Town, West Virginia. The only other known example of a Lane patent truss in Virginia, formerly located on Rt. 704 in Rockingham County, collapsed following an overload in the early 1970s. Apparently few Lane patent truss bridges survive, and their obscure design and lack of treatment in historical bridge literature can make precise identification difficult for anyone unfamiliar with this odd type of small truss bridge (see Figure 6).

One of the most unusual truss bridges in Virginia, and indeed the nation, crosses Linville Creek near Broadway in Rockingham County (Rockingham County Structure No. 6154). Constructed in 1898, this bridge was formerly identified as a hybrid Whipple, incorporating aspects of both the double-intersection Pratt and the double-intersection Warren. The structure in actuality is a Thacher truss, a hybrid configuration incorporating elements of the Pratt, Warren, Fink, and Bollman trusses that was first patented by Edwin Thacher in 1883 (Jackson, 1979). Its unusual configuration and the bewildering number of descriptions that have been applied to it merely reinforce its position as a bridge that is a rare survivor of an uncommon form. An 1889 Thacher truss was identified in Michigan in the 1980s (Hyde, 1985); it is uncertain how many other bridges of this type still survive (see Figure 7).

By the first decades of the 20th century, the overwhelming majority of Virginia's highway truss bridges were basic Pratt or Warren trusses. Heavier components coupled with


Figure 7. Thacher Truss Built in 1898 (Rockingham County Structure No. 6154)

simple configurations reflected the need for economical construction coupled with the ability to carry increasingly heavy traffic loads. Currently, of Virginia's 245 trusses that survive on-system, the great majority are one of these two configurations.

The Evolution of Standard Plans

The earliest methods of bridge planning and construction in Virginia involved bridge design and construction by local contractors. This held true for simple timber bridges, the smaller timber trusses, and some stone masonry bridges. Each contractor probably worked with a few time-tested designs that were adapted to the peculiarities of the specific site. With the widespread use of metal truss bridges in the later 19th century, however, came the advent of companies that specifically designed and produced truss bridges. The larger bridge companies frequently worked from standard plans and advertised bridges in different lengths and configurations to suit most sites, tastes, and prices ranges. Some firms also advertised used bridges. In some cases, the bridge company also arranged for the erection of the bridges; in other cases, especially involving smaller truss bridges, construction was done by local firms who purchased plans, franchises, and/or structural elements from manufacturers. However, final standards were left to the discretion of, variously, the company, the builder, or the governing body of the county or town in which the bridge was located.

Toward the end of the first decade of the 20th century came a radical and permanent change to bridge design in Virginia—that of state-mandated standards. State monetary assistance for counties desiring help with transportation costs—"State aid"—had been established several years earlier on a voluntary basis. The Virginia State Highway Commission, established in 1906, provided both design assistance and some funding to the counties. Although transportation systems were still under the control of the counties, any counties wishing assistance could apply to the commissioner for engineering advice on proposed road improvements. If the projects were permanent, located on main roads, and deemed to be "adequate and practical," the commissioner's office would

> . . . carefully prepare plans, specifications and estimates of cost for its construction with the materials agreed upon between the local road authorities and the commissioner. . . . If the local road authorities shall then decide to improve or construct said road or part thereof in accordance with the plans and specifications recommended and submitted by the commissioner, they may then apply to the State Highway Commissioner for such State aid . . . as may be obtained under the provisions of this chapter (Acts of Assembly, 1908, p. 164).

However, the condition of many bridges was soon recognized as not only unreliable but also unsafe and even critical, and mandatory bridge standards were required. The 1909 Annual Report of the State Highway Commission noted that

> . . . the provision in our State aid law permitting any county whose share in the fund does not exceed $2,500.00 to apply the same to the erection of bridges, has led to a steady increase in work of this character.
>
> Old wooden structures and steel bridges imperfectly designed are frequently found on he most heavily traveled highways, and are often in dangerous condition. This department desiring to meet these conditions, has striven to lend assistance not only to counties where we are giving State aid on permanent bridges, but to all counties asking for such assistance.
>
> After a careful study of the needs and desiring that bridges should be designed and erected according to some specifications which could be used and lived up to as standard by the State and county, this department, last July, issued "General Specifications for Steel Highway Bridges."
>
> . . . Wherever practical reinforced concrete spans have been used. This type of construction requires no maintenance, and its strength increases instead of diminishing with age. Spans from five to fifty feet in length have been designed and constructed. In cases where reinforced concrete cannot be used economically, steel is being employed. Steel bridges from fifteen to five hundred and eighty feet in length have been or are being erected according to the plans of this department and under its supervision.

As Virginia moved into ever-greater transportation design standardization and the use of automobiles increased, truss bridges took on new outlines. Bridge members became larger and stronger, and double lanes became standard. Sturdy pony trusses replaced old fords or wooden bridges in many locations. Carrying capacities of bridges also increased: up to 1920, standard plans specified a capacity of a "twelve ton road roller" or "twelve tons on two axles." But post-1920 plans specified a 15-ton capacity, quickly superseded by two 15-ton trucks passing on the bridge. Capacity was further increased in 1944 to accommodate the larger trucks then being built. The earliest standard plans featured timber joists and timber decks for the lighter bridges, with steel joists and timber decks for higher capacity bridges. By the mid-1910s, steel joists had become the standard. The majority of post-1920 truss bridge plans for primary routes also specified concrete decks (see Appendix C).

SURVEY RESULTS

VDOT records list 245 metal truss bridges still in service. Chronologically, the number of in-service bridges runs as follows:

1878-1889: 8
1890-1899: 8
1900-1909: 15
1910-1919: 36
1920-1929: 59
1930-1939: 65
1940-1949: 14
1950-1959: 4
1960+: 3
Date uncertain: 33
Total: 245.

As noted previously, VDOT records list 28 bridges as built in or after 1950, but according to data gathered during the survey, these constitute 7 new bridges and 21 relocated or reconstructed bridges. For most of the relocated and reconstructed bridges, no documentation of their original construction dates exists, but construction technology indicates that they date from the late 19th or early 20th century. Bridges for which exact dates could not be established, including these 21 bridges, were included in the "date uncertain" category. The state totals for the various truss types are listed in Appendix D. A full inventory of Virginia's metal truss bridges is provided in Appendix E.

EVALUATION FOR HISTORICAL SIGNIFICANCE

The task group determined that the criteria already successfully used to evaluate Virginia's non-arched concrete bridges were appropriate for determining the historical significance of metal truss bridges, as well as other types of bridges, thus giving a single set of criteria with which all bridges in Virginia could be evaluated. The results of these evaluations were presented to the Virginia Department of Historic Landmarks Evaluation Team, which agreed to accept the recommendations of the task group in dealing with questions of historical significance of transportation structures.

Virginia's metal truss bridges were evaluated for historical significance by the Historic Structures Task Group during the last half of 1996. All trusses under VDOT ownership or maintenance were evaluated, ranging in date from the 1878 bridge at Waterloo in Culpeper County (Culpeper County Structure No. 6906) to a 1994 Accrow structure in Loudoun County (Loudoun Co. Structure No. 6083).

The evaluation used the criteria previously formulated by the Historic Structures Task Group to determine the potential historical significance of bridges (see Appendix F). Each bridge was evaluated in terms of a score rating. The maximum possible score with a determination of national significance was 38; of statewide significance, 33; of regional significance, 30; of local significance, 28. A score of 18 or higher was required for National Register eligibility.

A total of 32 bridges were recommended as eligible for the National Register. A number of these bridges had previously been declared eligible for the Register, and a few had been entered on the Register. With one exception, the task group concurred with these previous findings: the task group recommended rescinding the previous finding of eligibility for the 1897 five-span Pratt pony truss bridge at Kelly's Ford in Culpeper County. Additional research undertaken during the course of the present survey indicated that the structure had been seriously damaged by several floods during the 1930s and 1940s and had undergone extensive repairs, including the replacement or complete rebuilding of three of its five spans and numerous repairs and changes to its piers and abutments. With the revelation that the historical integrity of the bridge was so seriously compromised, it was no longer deemed of sufficient significance to support National Register eligibility.

In late 1996, the following list of metal truss bridges recommended as eligible for the National Register was presented to the DHR, which concurred with the task group's findings. The list, including those bridges already on the National Register, includes the structure number, type of truss, date of construction, route and crossing, builder or designer, and rating.

Bristol District (1)

Bland County (10)

No. 9000: Pratt through truss (with Phoenix columns), built ca. 1890, located on a discontinued route crossing Wolf Creek; Phoenix Bridge Co.[?] Rating: 19.

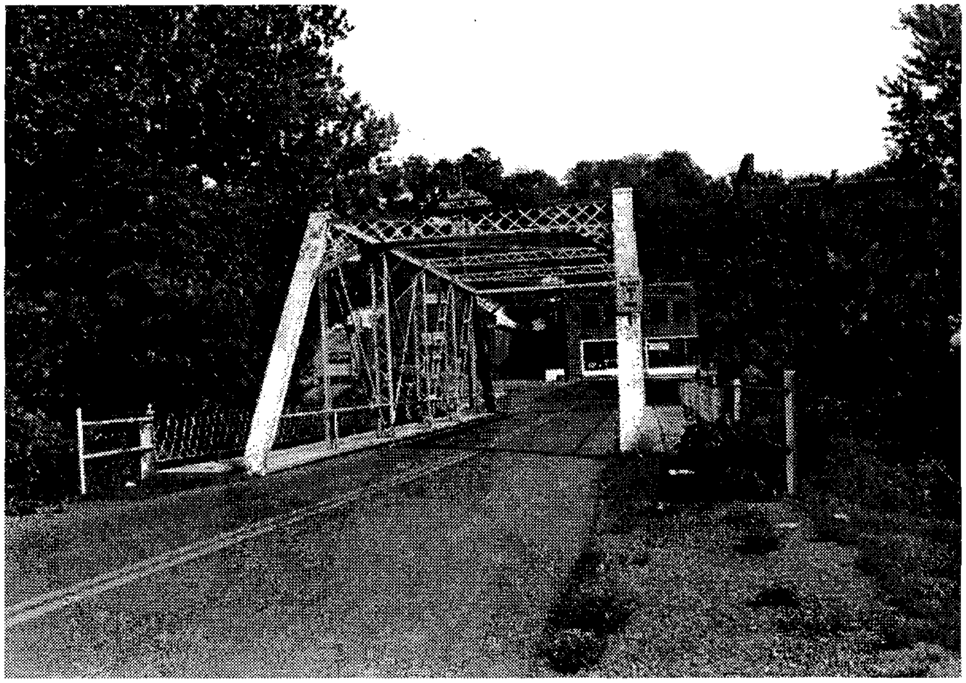

Figure 8. Two Lane Pratt Through Truss Built in 1885 (Town of Marion Structure No. 8003)

Grayson County (38)

No. 1007: Polygonal top chord Warren truss, 1927, Rt. 58/221 crossing New River; Roanoke Iron & Bridge Works. Not rated; previously determined eligible.

Wythe County (98)

No. 1005: Pratt deck truss, 1931, Rt. 11 crossing Reed Creek; Virginia Department of Highways. Not rated; previously determined eligible.

No. 1017: Warren (with verticals) cantilever/continuous through truss, with conventional Warren (with verticals) through truss approach spans, 1931, Rt. 52 crossing New River; Virginia Department of Highways. Not rated; previously determined eligible.

No. 6016: Pratt through truss (with Phoenix columns), ca. 1880s, Rt. 619 crossing Cripple Creek; Phoenix Bridge Co.[?]. Rating: 18.

Town of Marion (119)

No. 8003: Pratt through truss, 1885, E. Chillhowie Street crossing Middle Fork Holston River; King Iron & Bridge Co. (Figure 8). Rating: 21.

Salem District (2)

Bedford Co. (9)

No. 6087: Pratt deck truss, 1915. [Note: This date is the for the present steel truss only; the stone abutments date to ca. 1850 and originally supported a wooden trestle of the Virginia & Tennessee Railroad.] Rt. 666 crossing Elk Creek; Camden Iron Works (Figure 9). Rating: 19.

Figure 9. Pratt Deck Truss. Truss built in 1915 on Virginia & Tennessee Railroad stone abutments built around 1850 (Bedford County Structure No. 6087)

Botetourt County (11)

No. 6100: Warren (with verticals) deck truss (with Phoenix columns), 1886 (re-erected 1902), Rt. 817 crossing Craig Creek; Phoenix Bridge Co.[?]. Rating: 19.

No. 6386: Pratt through truss (with Phoenix columns), with Warren deck truss approach, 1887, Rt. 685 crossing Craig Creek; Phoenix Bridge Co. (Figure 10). Not rated; previously entered on National Register.

Figure 10. Highly Ornamental Pratt Through Truss with Phoenix Columns Built in 1887 (Botetourt County Structure No. 6386)

Giles Co. (35)

No. 6019: Pennsylvania through /camelback through/Pratt pony truss, 1916, crossing New River; Virginia Bridge & Iron Co. Not rated; previously determined eligible.

Lynchburg District (3)

Buckingham County (14)

No. 1987: Warren (with verticals) deck truss, 1934, Rt. 15 crossing James River/CSX Railroad/Rt. 656; Virginia Department of Highways. Not rated; previously determined eligible.

Campbell County (15)

No. 6904: Camelback through truss, 1903, Rt. 640 crossing Staunton River; Brackett Bridge Co. Not rated; previously entered on National Register.

Figure 11. Camelback Through Truss Built Around 1900 (Charlotte County Structure No. 6902)

Charlotte County (19)

No. 6902: Camelback through truss, ca. 1900, Rt. 620 crossing Staunton River; builder unknown (Figure 11). Not rated; previously determined eligible.

Nelson County (62)

No. 6052: Pratt through truss, 1882, Rt. 653 crossing Norfolk Southern Railroad; Keystone Bridge Co. (Figure 12). Not rated; previously entered on National Register.

Richmond District (4)

Brunswick County (12)

No. 6104: Pratt through truss, 1884, Rt. 715 crossing Meherrin River; Wrought Iron Bridge Co. Not rated; previously entered on National Register.

Figure 12. Pratt Through Truss Built in 1882 (Nelson County Structure No. 6052)

Suffolk District (5)

Northampton County (65)

No. 1006: Polygonal Top Chord Warren (with verticals) through truss, 1964, Rt. 13 crossing Chesapeake Bay. Not rated; previously determined eligible; this is part of the Chesapeake Bay Bridge Tunnel.

Fredericksburg District (6)

None.

Culpeper District (7)

Culpeper County (23)

No. 6906: Pratt through truss, 1878, Rt. 613 crossing Rappahannock River; Pittsburgh Iron Co. Not rated; previously determined eligible.

Staunton District (8)

Alleghany Co. (3)

No. 6064: Pratt through truss, 1896, Rt. 633 crossing Cowpasture River; Nelson & Buchanan Co. Not rated; previously determined eligible.

Augusta County (7)

No. 6027: Pratt pony truss, 1898, Rt. 907 crossing Christian's Creek; Brackett Bridge Co. Not rated; previously determined eligible.

No. 6081: Pratt pony leg ("bedstead") truss, 1914, Rt. 6081 crossing Little Calfpasture River; Champion Bridge Co. Not rated; previously determined eligible.

No. 6147: Pratt through truss, 1909, Rt. 775 crossing Middle River; Brackett Bridge Co. Not rated; previously determined eligible.

No. 6149: Camelback through truss, 1915, Rt. 778 crossing Middle River; Champion Bridge Co. Not rated; previously determined eligible.

No. 6729: Pratt through truss, 1907, Rt. 769 crossing Middle River; Champion Bridge Co. Not rated; previously determined eligible.

Highland County (45)

No. 6034: Lane Patent pony truss, 1896, Rt. 645 crossing Crab Run; West Virginia Bridge Works (refer to Figure 6). Rating: 19; bridge was also separately determined eligible as part of a project.

No. 6001: Pratt through truss, 1905, Rt. 603 crossing Back Creek; builder uncertain. Not rated; previously determined eligible.

Page County (69)

No. 1004: Pratt deck arch truss, 1936, Rt. 340 crossing Jeremiah's Run; Virginia Department of Highways. Not rated; previously determined eligible.

No. 1990: Pratt deck arch truss, 1938, Rt. 340 crossing Overall Creek; Virginia Department of Highways. Not rated; previously determined eligible.

Rockbridge County (81)

No. 6145: Pratt through truss, 1890, Rt. 746 crossing Calfpasture River; Groton Bridge Co. Not rated; previously listed on National Register.

Rockingham County (82)

No. 6154: Thacher through truss, 1898, Rt. 1421 crossing Linville Creek; Wrought Iron Bridge Co. (refer to Figure 10). Not rated; previously listed on National Register.

City of Covington (107)

No. 8002: Pratt through truss (with Phoenix columns), ca. 1885/ca.1900, Hawthorne St. crossing CSX Railway; Phoenix Bridge Co.[?]. Rating: 20.

NOVA District (A)

Loudoun County (53)

No. 6051: Pratt through truss, date uncertain, Rt. 673 crossing N. Fork Catoctin Creek; Variety Iron Works. Not rated; previously determined eligible.

Prince William County (76)

No. 6023: Pratt through truss, 1882, Rt. 646 crossing Norfolk Southern Railroad; Keystone Bridge Co. Not rated; previously entered on National Register.

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The moving force behind this project was Daniel D. McGeehan, Senior Research Scientist at VTRC, who first recognized the need for a complete update of the earlier metal truss survey and was involved in its inception before his retirement in 1995. Even following his retirement, Dan cheerfully made himself available to answer our periodic questions and requests for his counsel and opinion. It was with sadness that we learned of his sudden and untimely death in October 1996. In honor of a friend and colleague, we dedicate this report to his memory.

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APPENDIX A

TRUSS BRIDGE SURVEY AND INVENTORY FORM

TRUSS BRIDGE SURVEY AND INVENTORY FORM

Photo Numbers:

Geographic Information

Structure Number: ____________________.
State: Virginia
Va. Department of Transportation District: ____________; No. ______.
County: ____________________________________; No. ______.
City/Town:__________________________;Vicinity: ____; No. ______.
Street/Road: ____.
Crossing: ____.
UTM/KGS Coordinates: __________________________________.

Historical Information

Formal designation: ______________________________.
Local designation: _______________________________.
Designer: ____.
Builder: ____.
Date: ____________; basis for: ___________________________________.
Original Owner: ______________________________; use: ____________________.
Present Owner: ______________________________; use: ____________________.

Cultural Resources

Contextual Integrity:

General surroundings: ____
____.

Immediate surroundings: ____
____.

Associated resources: ____
____.

Nature/Degree of any destructive threat: ______________________________
____
____.

Reference materials and contemporary photos/illustrations with their respective locations:

Recorder: ____________________________.
Date: ________________________________.
Affiliation: ___________________________.

Design Information

Compass orientation of axis: ____________.

Architectural or decorative features:

No. of spans: ________; length; overall: ______________.

Span types:

(1) ________________; length: ____________.
(2) ________________; length: ____________.
(3) ________________; length: ____________.
(4) ________________; length: ____________.
(5) ________________; length: ____________.

No. of lanes: _________; width: ____________ c. to c.

Structural Information

Substructure:

Material: ____.
Foundations: ____.
Piers: ____.
Abutments: ____.
Wings: ____.
Seats: ____.

Superstructure:

Material:______________________. sources: ____________________.
Characteristicsm details and members:

Connections: ______ pin.
______ rigid.
Top Chords: ____.
End Posts: ____.
Bottom Chords: ____.
Posts: ____.
Diagonals: ____.
Counters: ____.

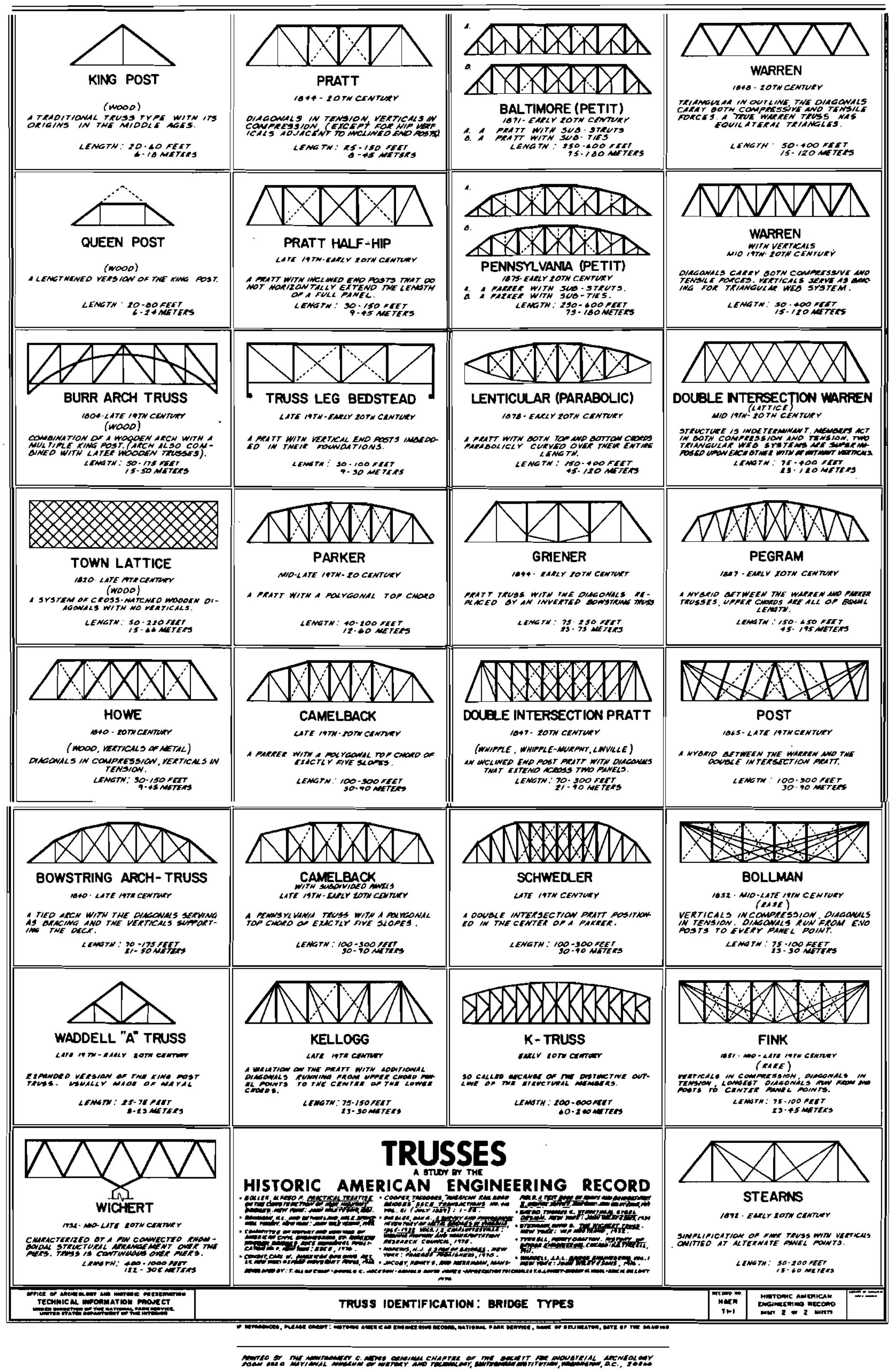
Truss Configuration

Main span type: ____ Through/Pony/Deck, Skew

Secondary span type: ___________________________________ Through/Pony/Deck, Skew

APPENDIX B

SAMPLE TRUSS TYPES


KING POST
(WOOD)
A TRADITIONAL TRUSS TYPE WITH ITS ORIGINS IN THE MIDDLE AGES.
LENGTH: 20-60 FEET 6-18 METERS
PRATT
1844 - 20TH CENTURY
DIAGONALS IN TENSION, VERTICALS IN COMPRESSION, (EXCEPT FOR HIP VERTICALS ADJACENT TO INCLINED END POSTS)
LENGTH: 25-150 FEET 8-45 METERS
A.
B.
BALTIMORE (PETIT)
1871 - EARLY 20TH CENTURY
A. A PRATT WITH SUB-STRUTS
B. A PRATT WITH SUB-TIES
LENGTH: 250-600 FEET 75-180 METERS
WARREN
1848 - 20TH CENTURY
TRIANGULAR IN OUTLINE, THE DIAGONALS CARRY BOTH COMPRESSIVE AND TENSILE FORCES. A TRUE WARREN TRUSS HAS EQUILATERAL TRIANGLES.
LENGTH: 50-400 FEET 15-120 METERS
QUEEN POST
(WOOD)
A LENGTHENED VERSION OF THE KING POST.
LENGTH: 20-80 FEET 6-24 METERS
PRATT HALF-HIP
LATE 19TH - EARLY 20TH CENTURY
A PRATT WITH INCLINED END POSTS THAT DO NOT HORIZONTALLY EXTEND THE LENGTH OF A FULL PANEL.
LENGTH: 30-150 FEET 9-45 METERS
A.
B.
PENNSYLVANIA (PETIT)
1875 - EARLY 20TH CENTURY
A. A PARKER WITH SUB-STRUTS.
B. A PARKER WITH SUB-TIES.
LENGTH: 250-600 FEET 75-180 METERS
WARREN
WITH VERTICALS
MID 19TH - 20TH CENTURY
DIAGONALS CARRY BOTH COMPRESSIVE AND TENSILE FORCES. VERTICALS SERVE AS BRACING FOR TRIANGULAR WEB SYSTEM.
LENGTH: 50-400 FEET 15-120 METERS
BURR ARCH TRUSS
1804 - LATE 19TH CENTURY
(WOOD)
COMBINATION OF A WOODEN ARCH WITH A MULTIPLE KING POST. (ARCH ALSO COMBINED WITH LATER WOODEN TRUSSES).
LENGTH: 50-175 FEET 15-50 METERS
TRUSS LEG BEDSTEAD
LATE 19TH - EARLY 20TH CENTURY
A PRATT WITH VERTICAL END POSTS IMBEDDED IN THEIR FOUNDATIONS.
LENGTH: 30-100 FEET 9-30 METERS
LENTICULAR (PARABOLIC)
1878 - EARLY 20TH CENTURY
A PRATT WITH BOTH TOP AND BOTTOM CHORDS PARABOLICLY CURVED OVER THEIR ENTIRE LENGTH.
LENGTH: 150-400 FEET 45-120 METERS
DOUBLE INTERSECTION WARREN
(LATTICE)
MID 19TH - 20TH CENTURY
STRUCTURE IS INDETERMINANT. MEMBERS ACT IN BOTH COMPRESSION AND TENSION. TWO TRIANGULAR WEB SYSTEMS ARE SUPERIMPOSED UPON EACH OTHER WITH OR WITHOUT VERTICALS.
LENGTH: 75-400 FEET 23-120 METERS
TOWN LATTICE
1820 - LATE 19TH CENTURY
(WOOD)
A SYSTEM OF CROSS-HATCHED WOODEN DIAGONALS WITH NO VERTICALS.
LENGTH: 50-220 FEET 15-66 METERS
PARKER
MID-LATE 19TH - 20 CENTURY
A PRATT WITH A POLYGONAL TOP CHORD
LENGTH: 40-200 FEET 12-60 METERS
GRIENER
1894 - EARLY 20TH CENTURY
PRATT TRUSS WITH THE DIAGONALS REPLACED BY AN INVERTED BOWSTRING TRUSS
LENGTH: 75-250 FEET 23-75 METERS
PEGRAM
1887 - EARLY 20TH CENTURY
A HYBRID BETWEEN THE WARREN AND PARKER TRUSSES, UPPER CHORDS ARE ALL OF EQUAL LENGTH.
LENGTH: 150-650 FEET 45-195 METERS
HOWE
1840 - 20TH CENTURY
(WOOD, VERTICALS OF METAL)
DIAGONALS IN COMPRESSION, VERTICALS IN TENSION.
LENGTH: 30-150 FEET 9-45 METERS
CAMELBACK
LATE 19TH - 20TH CENTURY
A PARKER WITH A POLYGONAL TOP CHORD OF EXACTLY FIVE SLOPES.
LENGTH: 100-300 FEET 30-90 METERS
DOUBLE INTERSECTION PRATT
1847 - 20TH CENTURY
(WHIPPLE, WHIPPLE-MURPHY, LINVILLE)
AN INCLINED END POST PRATT WITH DIAGONALS THAT EXTEND ACROSS TWO PANELS.
LENGTH: 70-300 FEET 21-90 METERS
POST
1865 - LATE 19TH CENTURY
A HYBRID BETWEEN THE WARREN AND THE DOUBLE INTERSECTION PRATT.
LENGTH: 100-300 FEET 30-90 METERS
BOWSTRING ARCH-TRUSS
1840 - LATE 19TH CENTURY
A TIED ARCH WITH THE DIAGONALS SERVING AS BRACING AND THE VERTICALS SUPPORTING THE DECK.
LENGTH: 70-175 FEET 21-50 METERS
CAMELBACK
WITH SUBDIVIDED PANELS
LATE 19TH - EARLY 20TH CENTURY
A PENNSYLVANIA TRUSS WITH A POLYGONAL TOP CHORD OF EXACTLY FIVE SLOPES.
LENGTH: 100-300 FEET 30-90 METERS
SCHWEDLER
LATE 19TH CENTURY
A DOUBLE INTERSECTION PRATT POSITIONED IN THE CENTER OF A PARKER.
LENGTH: 100-300 FEET 30-90 METERS
BOLLMAN
1852 - MID-LATE 19TH CENTURY
(RARE)
VERTICALS IN COMPRESSION, DIAGONALS IN TENSION. DIAGONALS RUN FROM END POSTS TO EVERY PANEL POINT.
LENGTH: 75-100 FEET 23-30 METERS
WADDELL "A" TRUSS
LATE 19TH - EARLY 20TH CENTURY
EXPANDED VERSION OF THE KING POST TRUSS. USUALLY MADE OF METAL
LENGTH: 25-75 FEET 8-23 METERS
KELLOGG
LATE 19TH CENTURY
A VARIATION ON THE PRATT WITH ADDITIONAL DIAGONALS RUNNING FROM UPPER CHORD PANEL POINTS TO THE CENTER OF THE LOWER CHORDS.
LENGTH: 75-150 FEET 23-30 METERS
K-TRUSS
EARLY 20TH CENTURY
SO CALLED BECAUSE OF THE DISTINCTIVE OUTLINE OF THE STRUCTURAL MEMBERS.
LENGTH: 200-800 FEET 60-240 METERS
FINK
1851 - MID-LATE 19TH CENTURY
(RARE)
VERTICALS IN COMPRESSION, DIAGONALS IN TENSION, LONGEST DIAGONALS RUN FROM END POSTS TO CENTER PANEL POINTS.
LENGTH: 75-100 FEET 23-45 METERS
WICHERT
1932 - MID-LATE 20TH CENTURY
CHARACTERIZED BY A PIN CONNECTED RHOMBOIDAL STRUCTURAL ARRANGEMENT OVER THE PIERS. TRUSS IS CONTINUOUS OVER PIERS.
LENGTH: 400-1000 FEET 122-305 METERS
TRUSSES
A STUDY BY THE
HISTORIC AMERICAN ENGINEERING RECORD
STEARNS
1892 - EARLY 20TH CENTURY
SIMPLIFICATION OF FINK TRUSS WITH VERTICALS OMITTED AT ALTERNATE PANEL POINTS.
LENGTH: 50-200 FEET 15-60 METERS
OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
TECHNICAL INFORMATION PROJECT
UNDER DIRECTION OF THE NATIONAL PARK SERVICE, UNITED STATES DEPARTMENT OF THE INTERIOR
TRUSS IDENTIFICATION: BRIDGE TYPES
RECORD NO. HAER TI-1
HISTORIC AMERICAN ENGINEERING RECORD
SHEET 2 OF 2 SHEETS
IF REPRODUCED, PLEASE CREDIT: HISTORIC AMERICAN ENGINEERING RECORD, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING
PRINTED BY THE MONTGOMERY C. MEIGS ORIGINAL CHAPTER OF THE SOCIETY FOR INDUSTRIAL ARCHEOLOGY
ROOM 5020 NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY, SMITHSONIAN INSTITUTION, WASHINGTON, D.C., 20560

APPENDIX C

STANDARD METAL TRUSS BRIDGE PLANS

VTRC METAL TRUSS BRIDGE SURVEY - STANDARD TRUSSES

BRIDGE TYPE	DATE OR SPEC	TRUSS TYPE	SPAN LENGTH	ROAD WIDTH	FLR/JOIST TYPE	CAPACITY
A-24-120	1935	DECK ARCH	120	24	CONCRETE	
L-10	1909, cl "A"	THROUGH PRATT	115.5	12	TIMBER/TJ	12T on 2 axles
L-11	1910/'09 spc	PONY PRATT FULL SLOPE	40	12	TIMBER/SJ	12T roller
L-15	1912/'09spc	THROUGH PRATT	100	12	TIMBER/TJ	12T roller
L-21	1916, cl "A"	THROUGH CAMELBACK	150	16	TIMBER/TJ	12T on 2 axles
L-23	1909, cl "A"	THROUGH PRATT	115.5	16	TIMBER/TJ	12T on 2 axles
L-30	1909 spc	THROUGH PRATT	119	12	TIMBER/SJ	12T roller
L-37	1909, cl "A"	PONY PRATT FULL SLOPE	61.25	12	TIMBER/SJ	12T on 2 axles
L-38	1909, cl "A"	THROUGH CAMELBACK	166.67	12	TIMBER/TJ	12T on 2 axles
L-46		WOODEN				
L-5	1910/'09spc	THROUGH PRATT	100	12	TIMBER/TJ	12T on 2 axles
L-7	1912/'09 spc	PONY PRATT FULL SLOPE	87.5	12	TIMBER/SJ	12T roller
L-8	1910/'09 spc	PONY PRATT FULL SLOPE	100	16	TIMBER/SJ	12T roller
LL-1	1920	PONY PRATT FULL SLOPE	50	12	TIMBER/SJ	12T
LL-13	1923/'19spc	PONY WARREN W/V	75	19	CSLAB/SB	(2)15T-passing
LL-14	1925/'23spc	PONY WARREN W/V	90	19	CSLAB/SJ	(2)15T-passing
LL-2	1919/20	PONY PRATT FULL SLOPE	60	12	TIMBER/SJ	12T
LL-3	1919	PONY PRATT FULL SLOPE	75	12	TIMBER/SJ	12T
LL-4	1919	PONY PRATT FULL SLOPE	50	16	TIMBER/SJ	15T
LL-5	1920	PONY PRATT FULL SLOPE	60	16	TIMBER/SJ	16T
LL-6	1919	PONY PRATT FULL SLOPE	75	16	TIMBER/SJ	15T
LL-7	1921/'19spc	PONY WARREN W/V	50	16	CSLAB/SB	15T
LL-8	1920	PONY WARREN W/V	75	16	CSLAB/SB	15T
LL-9	1921/'19spc	PONY WARREN W/V	60	16	CSLAB/SB	15T
LS-1	1921/'19spc	DECK WARREN W/V	VARIES	16	TIMBER/SJ	
LS-2	1921/'19spc	DECK WARREN W/V	100	16	TIMBER/SJ	(2)15T-passing
LT-1	1921	THROUGH WARREN W/V	100	16	TIMBER/SJ	15T
LT-11	1922/'19spc	THROUGH WARREN W/V	100	12	TIMBER/SJ	12T
LT-20	1923/'19spc	THROUGH PRATT	85	19	TIMBER/SJ	(2)15T-passing
LT-21	1922/'19spc	THROUGH WARREN W/V	100	19	TIMBER/SJ	(2)15T-passing
LT-22	1923	THROUGH PRATT	120	19	TIMBER/SJ	(2)15T-passing
LT-23	1923/'19spc	THROUGH WARREN W/V	140	19	TIMBER/SJ	(2)15T-passing
LT-30	1924/'23spc	THROUGH PRATT	85	19	CONC/SJ	(2)15T-passing
LT-31	1923	THROUGH WARREN W/V	100	19	CONC/SJ	(2)15T-passing
LT-32	****/'23spc	THROUGH MOD-WAR W/V	120	19	CONC/SJ	(2)15T-passing
LT-33	1923	THROUGH WARREN W/V	140	19	CONC/SJ	(2)15T-passing
LT-4	1920/21rev.	THROUGH CAMELBACK	150	16	TIMBER/SJ	15T
RT-1	1933	REMODELED TRUSS				

Sorted by Bridge Type (Plan Number)

VTRC METAL TRUSS BRIDGE SURVEY - STANDARD TRUSSES

BRIDGE TYPE	DATE OR SPEC	TRUSS TYPE	SPAN LENGTH	ROAD WIDTH	FLR/JOIST TYPE	CAPACITY
RT-2	1933	REMODELED TRUSS				
RT-3	1934	REMODELED TRUSS				
SC-24-105		PONY WARREN HYBRID	105	24	CONCRETE	(2)15T-passing
SC-24-120		THROUGH WARREN W/V	120	24	CONCRETE	(2)15T-passing
SC-24-140		THROUGH WARREN W/V	140	24	CONCRETE	(2)15T-passing
SC-24-150		THROUGH WARREN POLYG	150	24	CONCRETE	(2)15T-passing
SC-24-165		THROUGH WARREN POLYG	165	24	CONCRETE	(2)15T-passing
SC-24-200		THROUGH WARREN POLYG	200	24	CONCRETE	(2)15T-passing
SC-24-60	1935/'26spc	PONY WARREN W/V	60	24	CONCRETE	(2)15T-passing
SC-24-75		PONY PRATT FULL SLOPE	75	24	CONCRETE	(2)15T-passing
SC-24-90		PONY WARREN W/V	90	24	CONCRETE	(2)15T-passing
UNNAMED	1925/'23spc	PONY WARREN W/V	90	19	CONC/SJ	(2)15T-passing
I-13	1911/'09 spc	PONY PRATT FULL SLOPE	80	12	TIMBER/SJ	12T roller
SM-24-105		THROUGH WARREN POLYG	105	24	CONCRETE	(2)15T-passing
SM-24-120		THROUGH WARREN POLYG	120	24	CONCRETE	(2)15T-passing
SP4						
SP10						
ST-12-118						

Sorted by Bridge Type (Plan Number)

VTRC METAL TRUSS BRIDGE SURVEY - STANDARD TRUSSES

BRIDGE TYPE	DATE OR SPEC	TRUSS TYPE	SPAN LENGTH	ROAD WIDTH	FLR/JOIST TYPE	CAPACITY
SP10						
SP4						
ST-12-118						
SC-24-75		PONY PRATT FULL SLOPE	75	24	CONCRETE	(2)15T-passing
SC-24-105		PONY WARREN HYBRID	105	24	CONCRETE	(2)15T-passing
SC-24-90		PONY WARREN W/V	90	24	CONCRETE	(2)15T-passing
SM-24-105		THROUGH WARREN POLYG	105	24	CONCRETE	(2)15T-passing
SM-24-120		THROUGH WARREN POLYG	120	24	CONCRETE	(2)15T-passing
SC-24-150		THROUGH WARREN POLYG	150	24	CONCRETE	(2)15T-passing
SC-24-165		THROUGH WARREN POLYG	165	24	CONCRETE	(2)15T-passing
SC-24-200		THROUGH WARREN POLYG	200	24	CONCRETE	(2)15T-passing
SC-24-120		THROUGH WARREN W/V	120	24	CONCRETE	(2)15T-passing
SC-24-140		THROUGH WARREN W/V	140	24	CONCRETE	(2)15T-passing
L-46		WOODEN				
RT-3	1934	REMODELED TRUSS				
LT-32	****/23spc	THROUGH MOD-WAR W/V	120	19	CONC/SJ	(2)15T-passing
L-30	1909 spc	THROUGH PRATT	119	12	TIMBER/SJ	12T roller
L-37	1909, cl "A"	PONY PRATT FULL SLOPE	61.25	12	TIMBER/SJ	12T on 2 axles
L-38	1909, cl "A"	THROUGH CAMELBACK	166.67	12	TIMBER/TJ	12T on 2 axles
L-10	1909, cl "A"	THROUGH PRATT	115.5	12	TIMBER/TJ	12T on 2 axles
L-23	1909, cl "A"	THROUGH PRATT	115.5	16	TIMBER/TJ	12T on 2 axles
L-11	1910/09 spc	PONY PRATT FULL SLOPE	40	12	TIMBER/SJ	12T roller
L-8	1910/09 spc	PONY PRATT FULL SLOPE	100	16	TIMBER/SJ	12T roller
L-5	1910/09spc	THROUGH PRATT	100	12	TIMBER/TJ	12T on 2 axles
I-13	1911/09 spc	PONY PRATT FULL SLOPE	80	12	TIMBER/SJ	12T roller
L-7	1912/09 spc	PONY PRATT FULL SLOPE	87.5	12	TIMBER/SJ	12T roller
L-15	1912/09spc	THROUGH PRATT	100	12	TIMBER/TJ	12T roller
L-21	1916, cl "A"	THROUGH CAMELBACK	150	16	TIMBER/TJ	12T on 2 axles
LL-4	1919	PONY PRATT FULL SLOPE	50	16	TIMBER/SJ	15T
LL-3	1919	PONY PRATT FULL SLOPE	75	12	TIMBER/SJ	12T
LL-6	1919	PONY PRATT FULL SLOPE	75	16	TIMBER/SJ	15T
LL-2	1919/20	PONY PRATT FULL SLOPE	60	12	TIMBER/SJ	12T
LL-1	1920	PONY PRATT FULL SLOPE	50	12	TIMBER/SJ	12T
LL-5	1920	PONY PRATT FULL SLOPE	60	16	TIMBER/SJ	16T
LL-8	1920	PONY WARREN W/V	75	16	CSLAB/SB	15T
LT-4	1920/21rev.	THROUGH CAMELBACK	150	16	TIMBER/SJ	15T
LT-1	1921	THROUGH WARREN W/V	100	16	TIMBER/SJ	15T
LS-2	1921/19spc	DECK WARREN W/V	100	16	TIMBER/SJ	(2)15T-passing

Sorted by Date or Spec, Truss Type, Span Length, Road Width

VTRC METAL TRUSS BRIDGE SURVEY - STANDARD TRUSSES

BRIDGE TYPE	DATE OR SPEC	TRUSS TYPE	SPAN LENGTH	ROAD WIDTH	FLR/JOIST TYPE	CAPACITY
LS-1	1921/'19spc	DECK WARREN W/V	VARIES	16	TIMBER/SJ	
LL-7	1921/'19spc	PONY WARREN W/V	50	16	CSLAB/SB	15T
LL-9	1921/'19spc	PONY WARREN W/V	60	16	CSLAB/SB	15T
LT-11	1922/'19spc	THROUGH WARREN W/V	100	12	TIMBER/SJ	12T
LT-21	1922/'19spc	THROUGH WARREN W/V	100	19	TIMBER/SJ	(2)15T-passing
LT-22	1923	THROUGH PRATT	120	19	TIMBER/SJ	(2)15T-passing
LT-31	1923	THROUGH WARREN W/V	100	19	CONC/SJ	(2)15T-passing
LT-33	1923	THROUGH WARREN W/V	140	19	CONC/SJ	(2)15T-passing
LL-13	1923/'19spc	PONY WARREN W/V	75	19	CSLAB/SB	(2)15T-passing
LT-20	1923/'19spc	THROUGH PRATT	85	19	TIMBER/SJ	(2)15T-passing
LT-23	1923/'19spc	THROUGH WARREN W/V	140	19	TIMBER/SJ	(2)15T-passing
LT-30	1924/'23spc	THROUGH PRATT	85	19	CONC/SJ	(2)15T-passing
LL-14	1925/'23spc	PONY WARREN W/V	90	19	CSLAB/SJ	(2)15T-passing
UNNAMED	1925/'23spc	PONY WARREN W/V	90	19	CONC/SJ	(2)15T-passing
RT-1	1933	REMODELED TRUSS				
RT-2	1933	REMODELED TRUSS				
A-24-120	1935	DECK ARCH	120	24	CONCRETE	
SC-24-60	1935/'26spc	PONY WARREN W/V	60	24	CONCRETE	(2)15T-passing

Sorted by Date or Spec, Truss Type, Span Length, Road Width

VTRC METAL TRUSS BRIDGE SURVEY - STANDARD TRUSSES

BRIDGE TYPE	DATE OR SPEC	TRUSS TYPE	SPAN LENGTH	ROAD WIDTH	FLR/JOIST TYPE	CAPACITY
ST-12-118						
SP4						
SP10						
A-24-120	1935	DECK ARCH	120	24	CONCRETE	
LS-2	1921/'19spc	DECK WARREN W/V	100	16	TIMBER/SJ	(2)15T-passing
LS-1	1921/'19spc	DECK WARREN W/V	VARIES	16	TIMBER/SJ	
L-11	1910/'09 spc	PONY PRATT FULL SLOPE	40	12	TIMBER/SJ	12T roller
LL-1	1920	PONY PRATT FULL SLOPE	50	12	TIMBER/SJ	12T
LL-4	1919	PONY PRATT FULL SLOPE	50	16	TIMBER/SJ	15T
LL-2	1919/20	PONY PRATT FULL SLOPE	60	12	TIMBER/SJ	12T
LL-5	1920	PONY PRATT FULL SLOPE	60	16	TIMBER/SJ	16T
L-37	1909, cl "A"	PONY PRATT FULL SLOPE	61.25	12	TIMBER/SJ	12T on 2 axles
LL-3	1919	PONY PRATT FULL SLOPE	75	12	TIMBER/SJ	12T
LL-6	1919	PONY PRATT FULL SLOPE	75	16	TIMBER/SJ	15T
SC-24-75		PONY PRATT FULL SLOPE	75	24	CONCRETE	(2)15T-passing
I-13	1911/'09 spc	PONY PRATT FULL SLOPE	80	12	TIMBER/SJ	12T roller
L-7	1912/'09 spc	PONY PRATT FULL SLOPE	87.5	12	TIMBER/SJ	12T roller
L-8	1910/'09 spc	PONY PRATT FULL SLOPE	100	16	TIMBER/SJ	12T roller
SC-24-105		PONY WARREN HYBRID	105	24	CONCRETE	(2)15T-passing
LL-7	1921/'19spc	PONY WARREN W/V	50	16	CSLAB/SB	15T
LL-9	1921/'19spc	PONY WARREN W/V	60	16	CSLAB/SB	15T
SC-24-60	1935/'26spc	PONY WARREN W/V	60	24	CONCRETE	(2)15T-passing
LL-8	1920	PONY WARREN W/V	75	16	CSLAB/SB	15T
LL-13	1923/'19spc	PONY WARREN W/V	75	19	CSLAB/SB	(2)15T-passing
UNNAMED	1925/'23spc	PONY WARREN W/V	90	19	CONC/SJ	(2)15T-passing
LL-14	1925/'23spc	PONY WARREN W/V	90	19	CSLAB/SJ	(2)15T-passing
SC-24-90		PONY WARREN W/V	90	24	CONCRETE	(2)15T-passing
RT-2	1933	REMODELED TRUSS				
RT-3	1934	REMODELED TRUSS				
RT-1	1933	REMODELED TRUSS				
LT-4	1920/21rev.	THROUGH CAMELBACK	150	16	TIMBER/SJ	15T
L-21	1916, cl "A"	THROUGH CAMELBACK	150	16	TIMBER/TJ	12T on 2 axles
L-38	1909, cl "A"	THROUGH CAMELBACK	166.67	12	TIMBER/TJ	12T on 2 axles
LT-32	****/'23spc	THROUGH MOD-WAR W/V	120	19	CONC/SJ	(2)15T-passing
LT-30	1924/'23spc	THROUGH PRATT	85	19	CONC/SJ	(2)15T-passing
LT-20	1923/'19spc	THROUGH PRATT	85	19	TIMBER/SJ	(2)15T-passing
L-15	1912/'09spc	THROUGH PRATT	100	12	TIMBER/TJ	12T roller
L-5	1910/'09spc	THROUGH PRATT	100	12	TIMBER/TJ	12T on 2 axles

Sorted by Truss Type, Span Length, Road Width

VTRC METAL TRUSS BRIDGE SURVEY - STANDARD TRUSSES

BRIDGE TYPE	DATE OR SPEC	TRUSS TYPE	SPAN LENGTH	ROAD WIDTH	FLR/JOIST TYPE	CAPACITY
L-10	1909, cl "A"	THROUGH PRATT	115.5	12	TIMBER/TJ	12T on 2 axles
L-23	1909, cl "A"	THROUGH PRATT	115.5	16	TIMBER/TJ	12T on 2 axles
L-30	1909 spc	THROUGH PRATT	119	12	TIMBER/SJ	12T roller
LT-22	1923	THROUGH PRATT	120	19	TIMBER/SJ	(2)15T-passing
SM-24-105		THROUGH WARREN POLYG	105	24	CONCRETE	(2)15T-passing
SM-24-120		THROUGH WARREN POLYG	120	24	CONCRETE	(2)15T-passing
SC-24-150		THROUGH WARREN POLYG	150	24	CONCRETE	(2)15T-passing
SC-24-165		THROUGH WARREN POLYG	165	24	CONCRETE	(2)15T-passing
SC-24-200		THROUGH WARREN POLYG	200	24	CONCRETE	(2)15T-passing
LT-11	1922/'19spc	THROUGH WARREN W/V	100	12	TIMBER/SJ	12T
LT-1	1921	THROUGH WARREN W/V	100	16	TIMBER/SJ	15T
LT-21	1922/'19spc	THROUGH WARREN W/V	100	19	TIMBER/SJ	(2)15T-passing
LT-31	1923	THROUGH WARREN W/V	100	19	CONC/SJ	(2)15T-passing
SC-24-120		THROUGH WARREN W/V	120	24	CONCRETE	(2)15T-passing
LT-33	1923	THROUGH WARREN W/V	140	19	CONC/SJ	(2)15T-passing
LT-23	1923/'19spc	THROUGH WARREN W/V	140	19	TIMBER/SJ	(2)15T-passing
SC-24-140		THROUGH WARREN W/V	140	24	CONCRETE	(2)15T-passing
L-46		WOODEN				

Sorted by Truss Type, Span Length, Road Width

APPENDIX D

VIRGINIA METAL TRUSS BRIDGES BY SPAN TYPE, CONFIGURATION, CONSTRUCTION DATE, AND BUILDERS

Span Type Configurations: Totals

Configuration	Pin	Riveted	Other	Total
Deck Arch	0	2	0	2
Deck Pratt	1	0	0	1
Deck Warren Hybrid	0	2	0	2
Deck Warren Modified	0	1	0	1
Deck Warren w/Verticals	2	7	0	9
Pony Accrow	0	0	1	1
Pony Lane	0	0	1	1
Pony Pratt Full Slope	15	46	0	61
Pony Pratt Half Hip	7	0	0	7
Pony Pratt Modified	0	0	1	1
Pony Pratt Truss Leg	1	0	0	1
Pony Warren	0	2	0	2
Pony Warren Hybrid	0	10	0	10
Pony Warren Polygonal Hybrid	0	2	0	2
Pony Warren w/Verticals	0	55	0	55
Pony Warren w/Verticals (Vertical End Posts)	0	2	0	2
Through Camelback	6	2	0	8
Through Camelback & Pratt	1	0	0	1
Through Parker	1	2	0	3
Through Pennsylvania	1	0	0	1
Through Pratt Full Slope	40	4	0	44
Through Pratt Full Slope Skew	1	0	0	1
Through Thatcher	1	0	0	1
Through Warren Continuous	0	3	0	3
Through Warren Hybrid	0	4	0	4
Through Warren Polygonal	0	10	0	10
Through Warren w/Verticals	2	3	0	5
Deck/Through Warren w/Verticals	0	1	0	1
Through Pratt Full Slope/Deck Warren	1	0	0	1
Through Pratt Full Slope/Pony Pratt Full Slope	1	0	0	1
Through Pratt Full Slope/Pony Warren w/ Vert.	0	1	0	1
Through Warren Polygonal/Pony Pratt Full Slope	0	2	0	2
Total	81	161	3	245

Virginia Metal Truss Bridges by Span Type and Construction Date

Span Type	?	1878 - 1889	1890 - 1899	1900 - 1909	1910 - 1919	1920 - 1929	1930 - 1939	1940 - 1949	1950 - 1959	1960+	Total
Deck Bridges											
Arch	0	0	0	0	0	0	2	0	0	0	2
Pratt	0	0	0	0	1	0	0	0	0	0	1
Warren Hybrid	0	0	0	0	0	0	2	0	0	0	2
Warren Modified	0	0	0	0	0	1	0	0	0	0	1
Warren w/Verticals	0	1	0	0	0	0	2	5	1	0	9
Sub-Total	0	1	0	0	1	1	6	5	1	0	15
Pony Bridges											
Accrow	0	0	0	0	0	0	0	0	0	1	1
Lane	0	0	1	0	0	0	0	0	0	0	1
Pratt - Full Slope	6	0	2	3	14	15	18	3	0	0	61
Pratt - Half Hip	3	0	0	0	1	3	0	0	0	0	7
Pratt Modified	0	0	0	0	0	0	0	0	0	1	1
Pratt Truss Leg	0	0	0	0	1	0	0	0	0	0	1
Warren	1	0	0	0	0	0	1	0	0	0	2
Warren Hybrid	2	0	0	0	0	3	4	1	0	0	10
Warren Polygonal Hybrid	0	0	0	0	0	0	1	1	0	0	2
Warren w/ Verticals	10	0	0	1	7	21	15	1	0	0	55
Warren w/ Verticals (Vertical End Post)	0	0	0	0	0	0	2	0	0	0	2
Sub-Total	22	0	3	4	23	42	41	6	0	2	143
Through Bridges											
Camelback	1	0	0	2	4	0	1	0	0	0	8
Parker	1	0	0	0	1	0	1	0	0	0	3
Pennsylvania	0	0	0	0	1	0	0	0	0	0	1
Pratt - Full Slope	5	6	4	9	6	7	6	1	0	0	44
Pratt - Full Slope Skew	0	0	0	0	0	0	0	0	1	0	1
Thatcher	0	0	1	0	0	0	0	0	0	0	1
Warren Continuous	0	0	0	0	0	1	1	1	0	0	3
Warren Hybrid	0	0	0	0	0	3	1	0	0	0	4

Virginia Metal Truss Bridges by Span Type and Construction Date

Span Type	?	1878 - 1889	1890 - 1899	1900 - 1909	1910 - 1919	1920 - 1929	1930 - 1939	1940 - 1949	1950 - 1959	1960+	**Total**
Warren Polygonal	1	0	0	0	0	3	4	0	1	1	10
Warren w/ Verticals	1	0	0	0	0	1	3	0	0	0	5
Sub-Total	9	6	5	11	12	15	17	2	2	1	80
Mixed Span Bridges											
Deck/Through Warren w/ Verticals	0	0	0	0	0	0	0	0	1	0	1
Through Camelback/Through Pratt	1	0	0	0	0	0	0	0	0	0	1
Through Pratt - Full Slope/Deck Warren	0	1	0	0	0	0	0	0	0	0	1
Through Pratt - Full Slope/Pony Pratt - Full Slope	0	0	0	0	0	0	0	1	0	0	1
Through Pratt - Full Slope/Pony Warren w/ Verticals	1	0	0	0	0	0	0	0	0	0	1
Through Warren Polygonal/Pony Pratt - Full Slope	0	0	0	0	0	1	1	0	0	0	2
Sub-Total	2	1	0	0	0	1	1	1	1	0	7
Total	33	8	8	15	36	59	65	14	4	3	245

* These tabulations do not include either the Fink deck truss now owned by the City of Lynchburg or the Bowstring arch truss now at the Ironto Wayside in Montgomery County.

Bridge Builders: Totals

Builder	Pin	Riveted	Other	Total
none known	18	79	0	97
American Bridge Co.	1	0	0	1
Atlantic Bridge Co.	0	1	0	1
Atlantic Bridge Co./VBIW	0	1	0	1
Atlantic Bridge Co./VDHT	0	1	0	1
Accrow Bridge Co.	0	0	1	1
Brackett Bridge Co.	4	0	0	4
C. W. Curry	0	1	0	1
Camden Iron Works/VDHT	1	0	0	1
Canton Bridge Co.	3	0	0	3
Champion Bridge Co.	11	6	0	17
Champion Bridge Co./VDHT	0	4	0	4
Columbia Bridge Works	1	0	0	1
Debourgh Manufacturing	0	0	1	1
Department of Defense	0	1	0	1
Fredericksburg Bridge Co.	0	1	0	1
Gresham Bridge Co.	0	1	0	1
Groton Bridge Manufacturing Co.	2	0	0	2
Horseheads Bridge Co.	1	0	0	1
Keystone Bridge Co.	2	0	0	2
King Iron Bridges Co.	1	0	0	1
M. C. Turner	0	1	0	1
Nelson & Buchanan Construction	1	0	0	1
Penn Bridge Co.	1	0	0	1
Phoenix Bridge Co.	5	0	0	5
Pittsburg Bridge Co.	1	0	0	1
Pittsburg Iron & Bridge Co.	1	0	0	1
Roanoke Bridge & Iron Co.	1	0	0	1
Roanoke Bridge Co.	1	5	0	6
Roanoke Iron & Bridge Co.	0	3	0	3
Roanoke Iron & Bridge Works	2	31	0	33
Roanoke Iron & Bridge Works/VDHT	0	1	0	1
T. A. Loving & Sons	0	1	0	1
Twin City Boiler Works	0	1	0	1
U. S. Army	0	3	0	3
Variety Iron Works	2	0	0	2
Virginia Bridge & Iron Co.	14	10	0	24
Virginina Bridge & Iron Co./Alley Const.	0	1	0	1
Virginia Bridge & Iron Co./VDHT	0	1	0	1
Virginia Bridge Co.	1	1	0	2
VDHT	1	4	0	5
Walker Brothers	1	0	0	1
West Virginia Bridge Co.	0	0	1	1
Wisconsin Bridge & Iron Co.	0	1	0	1
Wrought Iron Bridge Co.	4	0	0	4
York Bridge Co.	0	1	0	1
Total	81	161	3	245

APPENDIX E

INVENTORY OF VIRGINIA'S METAL TRUSS BRIDGES

NOTE: Inventory sheets are paired (50, 50-A, 51, 51-A, etc.) to accommodate the large number of descriptive elements for each bridge.

Inventory of Virginia's Metal Truss Bridges

DISTRICT	COUNTY/CITY	BRIDGE NO.	ROUTE NO.	CROSSING ID	CONST. YEAR	BRIDGE TYPE
Culpeper	Albemarle	1061	20	Hardware River	?/1955	Pony Pratt Full Slope
Culpeper	Albemarle	6009	603	Lynch River	1917	Pony Pratt Full Slope
Culpeper	Albemarle	6013	606	No. Fork Rivanna River	1924	Pony Pratt Full Slope
Culpeper	Albemarle	6092	717	Hardware River	1932	Pony Warren w/ Verticals
Culpeper	Albemarle	6104	743	No. Fork Rivanna River	1943	Through Pratt Full Slope/Pony Pratt Full Slope
Culpeper	Albemarle	6244	795	Hardware River	1907	Pony Pratt Full Slope
Staunton	Alleghany	1031	60	Dunlap Creek	1928	Through Warren Polygonal
Staunton	Alleghany	1032	60	Dunlap Creek	1928	Through Warren Polygonal
Staunton	Alleghany	1037	159	Dunlap Creek	1928	Pony Warren w/ Verticals
Staunton	Alleghany	1039	159	Dunlap Creek	1928	Pony Warren w/ Verticals
Staunton	Alleghany	1057	311	Dunlap Creek	1936	Through Parker
Staunton	Alleghany	1058	311	Dunlap Creek	1936	Pony Warren Polygonal Hybrid
Staunton	Alleghany	6062	785	Potts Creek	1932	Through Pratt Full Slope
Staunton	Alleghany	6064	633	Cowpasture River	1896	Through Pratt Full Slope
Staunton	Alleghany	6070	638	Jackson River	1913	Through Camelback
Staunton	Alleghany	6079	660	Johnsons or Ogle Creek	1932	Through Pratt Full Slope
Staunton	Alleghany	6092	710	Dunlap Creek	1934	Through Warren Polygonal
Richmond	Amelia	6902	620	Appomattox River	1912	Through Pratt Full Slope
Lynchburg	Amherst	6043	643	Horseleys Creek	1923	Pony Pratt Full Slope
Lynchburg	Amherst	6079	635	Pedlar River	1937	Pony Pratt Full Slope
Staunton	Augusta	6027	907	Christians Creek	1898	Pony Pratt Full Slope
Staunton	Augusta	6032	613	Mossey Creek	1910	Pony Warren w/ Verticals
Staunton	Augusta	6053	637	Christians Creek	1920	Pony Pratt Half Hip
Staunton	Augusta	6081	683	Little Cowpasture River	1915	Pony Pratt Truss Leg (*Bedstead*)
Staunton	Augusta	6102	703	Middle River	1915	Pony Pratt Half Hip
Staunton	Augusta	6117	730	North River	1932	Through Warren w/ Verticals
Staunton	Augusta	6127	733	Moffett Creet/Elk Run	1920	Pony Pratt Half Hip
Staunton	Augusta	6146	774	Middle River	1903	Through Pratt Full Slope
Staunton	Augusta	6147	775	Middle River	1909	Through Pratt Full Slope
Staunton	Augusta	6149	778	Middle River	1915	Through Camelback
Staunton	Augusta	6151	780	Middle River	1890	Through Pratt Full Slope
Staunton	Augusta	6159	794	Christians Creek	1910	Pony Warren w/ Verticals
Staunton	Augusta	6162	801	Jennings Branch	1900	Through Pratt Full Slope
Staunton	Augusta	6729	769	Middle River	1907	Through Pratt Full Slope
Staunton	Bath	6050	676	Little Back Creek	1932	Pony Pratt Full Slope
Staunton	Bath	6113	635	Mill Creek	1921	Pony Pratt Full Slope
Salem	Bedford	6068	644	Big Otter River	1932	Pony Pratt Full Slope

Inventory of Virginia's Metal Truss Bridges

COUNTY/CITY	BRIDGE NO.	PLAN NUMBER	NO. OF SPANS	LENGTH M (ft.)	WIDTH M(ft.)	BUILDER	RIVET/PIN CONNECTION	RATING
Albemarle	1061	(2)SC-24-75	3	60.98 (198)	7.39 (24)		R	NE
Albemarle	6009	Early VBIW Std.	2	24.33 (79)	4.31 (14)	VA BRIDGE & IRON CO? (Deibler)	P	NE
Albemarle	6013	No Match	6	105.03 (341)	4.62 (15)	CHAMPION BRIDGE CO	P	NE
Albemarle	6092	Std. L-4?	4	41.89 (136)	4 (13)		R	NE
Albemarle	6104	No Match	3	62.83 (204)	5.24 (17)	VDHT	P	NE
Albemarle	6244	Not Std.	3	40.04 (130)	4.31 (14)	VA BRIDGE & IRON CO? (Deibler)	P	NE
Alleghany	1031	SC-24-150	1	47.43 (154)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Alleghany	1032	SC-24-150	1	47.43 (154)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Alleghany	1037		1	28.64 (93)	7.39 (24)		R	NE
Alleghany	1039		1	29.57 (96)	7.39 (24)		R	NE
Alleghany	1057	SM-24-105 Skew	1	38.81 (126)	7.7 (25)	ROANOKE IRON BR. WKS.	R	NE
Alleghany	1058	SM-24-105	1	32.65 (106)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Alleghany	6062	No Match	2	46.51 (151)	4 (13)	VA BRIDGE CO	P	NE
Alleghany	6064	Not Std.	3	97.02 (315)	4.62 (15)	NELSON/BUCHANAN CNST	P	E
Alleghany	6070	No Match	3	75.77 (246)	4.62 (15)	ROANOKE BRIDGE CO	P	NE
Alleghany	6079	No Match	1	27.1 (88)	4 (13)	VA BRIDGE & IRON CO	P	NE
Alleghany	6092	SC-24-150	2	60.68 (197)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Amelia	6902	No Match	1	29.26 (95)	4 (13)		P	NE
Amherst	6043	LL-3	1	24.02 (78)	4.93 (16)	CHAMPION BRIDGE CO	R	NE
Amherst	6079	SC-24-75	3	49.9 (162)	7.39 (24)	VA BRIDGE CO	R	NE
Augusta	6027	No Match	1	24.95 (81)	4.62 (15)	BRACKETT BRIDGE CO	P	E
Augusta	6032		1	12.63 (41)	4 (13)	CHAMPION BRIDGE CO	R	NE
Augusta	6053	No Match	1	48.05 (156)	5.24 (17)	CHAMPION BRIDGE CO	P	NE
Augusta	6081	Bedstead!	1	25.26 (82)	4 (13)	CHAMPION BRIDGE CO	P	NE
Augusta	6102	No Match	1	14.48 (47)	4.62 (15)	CHAMPION BRIDGE CO	P	NE
Augusta	6117	RR Bridge	1	41.89 (136)	4.93 (16)		P	NE
Augusta	6127	No Match	1	23.1 (75)	4 (13)	CHAMPION BRIDGE CO	P	NE
Augusta	6146	No Match	1	42.2 (137)	4 (13)	BRACKETT BRIDGE CO	P	NE
Augusta	6147	No Match	1	43.74 (142)	4 (13)	BRACKETT BRIDGE CO	P	E
Augusta	6149	No Match	1	56.06 (182)	5.24 (17)	CHAMPION BRIDGE CO	P	E
Augusta	6151	Not Std.	1	39.12 (127)	3.39 (11)	WROUGHT IRON BR CO	P	NE
Augusta	6159		1	21.87 (71)	3.7 (12)	CHAMPION BRIDGE CO	R	NE
Augusta	6162	Not Std.	1	36.96 (120)	4 (13)	CHAMPION BRIDGE CO	P	NE
Augusta	6729	No Match	3	109.65 (356)	4.93 (16)	CHAMPION BRIDGE CO	P	E
Bath	6050	VBIW A-Frame	1	17.56 (56)	4.31 (14)	VA BRIDGE & IRON CO? (Deibler)	P	NE
Bath	6113	LL-3	1	23.72 (77)	3.39 (11)	VDHT	R	NE
Bedford	6068	LL-3	2	33.88 (110)	3.39 (11)	ROANOKE BRIDGE CO	R	NE

Inventory of Virginia's Metal Truss Bridges

DISTRICT	COUNTY/CITY	BRIDGE NO.	ROUTE NO.	CROSSING ID	CONST. YEAR	BRIDGE TYPE
Salem	Bedford	6087	666	Elk Creek	1915	Deck Pratt
Salem	Bedford	6103	684	Goose Creek	1915	Pony Pratt Full Slope
Salem	Bedford	6123	715	Little Otter River	1932	Pony Pratt Full Slope
Salem	Bedford	6177	806	Stony Fork	1932	Pony Pratt Full Slope
Salem	Bedford	6340	784	Little Otter River	?/1960	Pony Warren Hybrid
Salem	Bedford	6904	634	Roanoke River	?/1963	Through Warren Polygonal
Bristol	Big Stone Gap	8002	613	Powell River	1932	Pony Pratt Full Slope
Salem	Blacksburg	5000	Pedestrian Walk	South Gate Drive	c. 1960	Pony Pratt Modified
Bristol	Bland	1006	52	Wolf Creek	1926	Pony Warren w/ Verticals
Bristol	Bland	1007	52	Wolf Creek	1926	Pony Warren w/ Verticals
Bristol	Bland	6008	656	Big Walker Creek	1932	Pony Pratt Full Slope
Bristol	Bland	6057	607	Kimberling Creek	1932/1951	Pony Warren w/ Verticals
Bristol	Bland	6113	665	Wolf Creek	1928	Through Warren Hybrid
Bristol	Bland	9000	Discontinued	Wolf Creek	1932	Through Pratt Full Slope
Salem	Botetourt	1024	43	James River/CSX RR	1933	Deck Warren Hybrid
Salem	Botetourt	6068	622	Mill Creek	1932	Pony Pratt Full Slope
Salem	Botetourt	6100	817	Craig Creek	1887	Deck Warren w/Verticals
Salem	Botetourt	6140	727	James River	?&1915/1955	Through Camelback/Through Pratt
Salem	Botetourt	6386	685	Craig Creek	1887	Through Pratt Full Slope/Deck Warren
Richmond	Brunswick	6033	630	Waqua Creek	1919	Pony Pratt Full Slope
Richmond	Brunswick	6104	715	Meherrin River	1884	Through Pratt Full Slope
Lynchburg	Buckingham	1012	60	Slate River	1931	Pony Warren w/ Verticals
Lynchburg	Buckingham	1987	15	James River/CSA RR/Rt. 656	1934	Deck Warren w/Verticals
Lynchburg	Buckingham	6175	654	Whispering Creek	?/1968	Pony Warren w/ Verticals
Lynchburg	Campbell	1981	29	Staunton River	1928	Through Warren Polygonal/Pony Pratt Full Slope
Lynchburg	Campbell	6119	712	Big Otter River	1927	Through Warren Hybrid
Lynchburg	Campbell	6904	640	Staunton River	1903	Through Camelback
Salem	Carroll	1001	52	Little Reed Island Creek	1934	Pony Warren w/ Verticals
Salem	Carroll	6026	630	Laurel Fork	1932	Pony Warren
Salem	Carroll	6107	703	Little Reed Island Creek	1919	Pony Pratt Full Slope
Lynchburg	Charlotte	1998	92	Roanoke/Staunton River	1930	Through Warren Polygonal/Pony Pratt Full Slope
Lynchburg	Charlotte	6902	620	Staunton River	1900	Through Camelback
Staunton	Covington	8002	Hawthorne St	CSX RR	?	Through Pratt Full Slope
Salem	Craig	6050	692	Craig Creek	1924	Through Warren w/ Verticals
Culpeper	Culpeper	1907	15	Rappahannock River	1930	Pony Warren w/ Verticals
Culpeper	Culpeper	6906	613	Rappahannock River	1878	Through Pratt Full Slope
Culpeper	Culpeper	6908	620	Rappahannock River	1898	Pony Pratt Full Slope

Inventory of Virginia's Metal Truss Bridges

COUNTY/CITY	BRIDGE NO.	PLAN NUMBER	NO. OF SPANS	LENGTH M (ft.)	WIDTH M(ft.)	BUILDER	RIVET/PIN CONNECTION	RATING
Bedford	6087		1	33.88 (110)	3.39 (11)	CAMDEN IRON WKS/VDHT	P	E
Bedford	6103	LL-3	2	36.96 (120)	3.7 (12)	VA BRIDGE & IRON CO/VDHT	R	NE
Bedford	6123	No Match	1	17.56 (57)	3.39 (11)		P	NE
Bedford	6177		2	27.1 (88)	3.7 (12)		R	NE
Bedford	6340	U. S. Army?	2	44.04 (143)	5.24 (17)	DEPT. OF DEFENSE	R	NE
Bedford	6904	SC-24-150 (2)	2	94.86 (308)	6.78 (22)		R	NE
Big Stone Gap	8002		6	54.52 (177)	3.39 (11)		R	NE
Blacksburg	5000	Not Std.	1	10.78 (35)	1.23 (4)	DEBOURGH MFG.	Other	NE
Bland	1006	SC-24-90	5	49.59 (161)	8.01 (26)	ROANOKE IRON BR. WKS.	R	NE
Bland	1007	SC-24-90	4	49.28 (160)	7.08 (23)	ROANOKE IRON BR. WKS.	R	NE
Bland	6008	Early VBIW Std?	1	13.24 (43)	4 (13)	VA BRIDGE & IRON CO? (Deibler)	P	NE
Bland	6057	No Match	1	22.48 (73)	4.93 (16)		R	NE
Bland	6113	SC-24-120	3	62.22 (202)	8.01 (26)	ROANOKE IRON BR. WKS.	R	NE
Bland	9000		1	63.45 (206)	4.93 (16)	PHOENIX BRIDGE CO. (Diebler)	P	E
Botetourt	1024	SC-24-105 (3)	8	163.55 (531)	8.01 (26)		R	NE
Botetourt	6068		1	16.02 (52)	4.62 (15)		R	NE
Botetourt	6100	No Match	2	77.92 (253)	4.62 (15)	PHOENIX BRIDGE CO.?	P	E
Botetourt	6140	CB(Std.)P(No Match)	2	86.55 (281)	3.7 (12)		P	NE
Botetourt	6386		2	82.24 (267)	3.7 (12)	PHOENIX BRIDGE CO.	P	E
Brunswick	6033	LL-3	1	26.18 (85)	3.7 (12)	C.W. CURRY CO	R	NE
Brunswick	6104	Not Std.	2	59.14 (192)	4 (13)	WROUGHT IRON BR CO	P	E
Buckingham	1012	SC-24-60	5	43.74 (142)	10.78 (35)	ROANOKE IRON BR. WKS.	R	NE
Buckingham	1987	No Match	24	550.4 (1787)	7.08 (23)		P	E
Buckingham	6175	SC-24-60	1	18.79 (61)	7.39 (24)		R	NE
Campbell	1981	SC-24-150 (2)/SC-24-75 (2)	26	431.2 (1400)	7.39 (24)		R	NE
Campbell	6119	SC-24-120	4	72.38 (235)	11.4 (37)	ATLANTIC BRIDGE CO./VBIW	R	NE
Campbell	6904	No Match	17	190.65 (619)	4.93 (16)	BRACKETT BRIDGE CO	P	E
Carroll	1001	SC-24-60	3	36.04 (117)	8.01 (26)		R	NE
Carroll	6026	No Match	1	24.02 (78)	4.62 (15)		R	NE
Carroll	6107	LL-3	1	22.79 (74)	4 (13)	VDHT	R	NE
Charlotte	1998	SC-24-120 (2)/SC-24-75 (2)	4	295.68 (960)	8.62 (28)	ROANOKE IRON BR. CO.	R	NE
Charlotte	6902	No Match	14	206.98 (673)	5.54 (18)		R	E
Covington	8002		1	24.95 (81)	6.78 (22)	PHOENIX BRIDGE CO.?	P	E
Craig	6050	LT-3	3	51.74 (168)	6.47 (21)	M. C. TURNER, ROANOKE , VA	R	NE
Culpeper	1907	(2)SC-24-90	4	81.62 (265)	8.32 (27)	ROANOKE IRON BR. WKS.	R	NE
Culpeper	6906	Not Std.	3	119.2 (387)	4 (13)	PITTSBURGH IRON & BR	P	E
Culpeper	6908	SC-24-75	6	133.36 (433)	4 (13)	HORSEHEADS BRIDGE CO	P	NE

Inventory of Virginia's Metal Truss Bridges

DISTRICT	COUNTY/CITY	BRIDGE NO.	ROUTE NO.	CROSSING ID	CONST. YEAR	BRIDGE TYPE
Lynchburg	Cumberland	6053	690	Willis River	1934	Pony Warren w/ Verticals
Lynchburg	Cumberland	6903	621	Appomattox River	1900	Through Pratt Full Slope
Bristol	Dickenson	1035	63	McClure River	1926	Pony Warren w/ Verticals
Bristol	Dickenson	6051	684	McClure River	1923	Pony Warren w/ Verticals
Culpeper	Fauquier	1910	211	Rappahannock River	1930	Through Warren Hybrid
Culpeper	Fauquier	6903	645	Rappahannock River	1882	Through Pratt Full Slope
Salem	Floyd	6021	626	Burke Fork Creek	1932a	Pony Warren w/ Verticals
Salem	Floyd	6269	810	Little River	?/1966	Pony Warren w/ Verticals
Culpeper	Fluvanna	1001	6	Rivanna River	1930	Pony Warren Hybrid
Culpeper	Fluvanna	1002	6	Hardware River	1935	Pony Pratt Full Slope
Culpeper	Fluvanna	1004	15	Rivanna River	1931	Through Warren Polygonal
Salem	Franklin	6057	643	Blackwater River	1915	Pony Pratt Full Slope
Salem	Franklin	6089	687	Maggodee Creek	1929	Pony Warren w/ Verticals
Salem	Franklin	6197	892	Otter Creek	1932a	Through Pratt Full Slope
Salem	Franklin	6403	668	Gills Creek	?/1963	Pony Pratt Full Slope
Staunton	Front Royal	1901	55	So. Fork Shenandoah R./N&W RR	1941	Deck Warren w/Verticals
Salem	Giles	1010	460	New River	1941	Deck Warren w/Verticals
Salem	Giles	6019	623	New River	1916	Through Pennsylvania
Salem	Giles	6045	713	Walker Creek	1932a	Through Pratt Full Slope
Salem	Giles	6047	670	Big Walker Creek	?/1936	Through Pratt Full Slope
Salem	Giles	6048	673	Wolf Creek	1924	Through Pratt Full Slope
Salem	Giles	6067	724	Wolf Creek	1924	Through Pratt Full Slope
Salem	Giles	6193	724	Wolf Creek	1927	Through Pratt Full Slope
Bristol	Grayson	1007	94	New River	1927	Through Warren Polygonal
Bristol	Grayson	1009	58/274	Elk Creek	1930	Pony Pratt Full Slope
Bristol	Grayson	1013	58	Fox Creek	1932	Pony Pratt Full Slope
Bristol	Grayson	6102	767	Big Wilson Creek	1909	Through Pratt Full Slope
Lynchburg	Halifax	1012	58	Dan River	1933	Pony Warren Hybrid
Lynchburg	Halifax	1024	360	Banister River	1920	Pony Warren Hybrid
Lynchburg	Halifax	1985	49	Arrons Creek	1936	Pony Pratt Full Slope
Lynchburg	Halifax	6166	698	Sandy Creek	1933	Through Pratt Full Slope
Richmond	Hanover	1012	54	South Anna River	1927	Pony Warren w/ Verticals
Richmond	Hanover	6061	689	Little River	1920	Pony Pratt Full Slope
Salem	Henry	6007	701	Smith River	1931	Pony Warren w/ Verticals
Salem	Henry	6017	993	Reed Creek	1929	Pony Warren w/ Verticals
Salem	Henry	6026	720	West Fork Leatherwood Creek	?/1959	Pony Warren w/ Verticals
Salem	Henry	6129	622	Smith River	?/1953	Through Pratt Full Slope/Pony Warren w/ Verticals

Inventory of Virginia's Metal Truss Bridges

COUNTY/CITY	BRIDGE NO.	PLAN NUMBER	NO. OF SPANS	LENGTH M (ft.)	WIDTH M(ft.)	BUILDER	RIVET/PIN CONNECTION	RATING
Cumberland	6053	SC-24-90	3	51.44 (167)	7.7 (25)	ROANOKE IRON BR. WKS./VDHT	R	NE
Cumberland	6903	Not Std.	3	50.2 (163)	4.93 (16)		P	NE
Dickenson	1035	SC-24-90	1	28.95 (94)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Dickenson	6051	No Match	3	28.03 (91)	4 (13)	ROANOKE IRON BR. WKS.	R	NE
Fauquier	1910	SC-24-120 (2)	2	75.77 (246)	8.01 (26)	ROANOKE IRON BR. WKS.	R	NE
Fauquier	6903	Not Std.	6	86.55 (281)	4 (13)	COLUMBIA BRIDGE WRKS	P	NE
Floyd	6021	Std. L-4?	1	21.56 (70)	3.7 (12)		R	NE
Floyd	6269	Std. L-4?	3	36.96 (120)	3.7 (12)		R	NE
Fluvanna	1001	SC-24-105	10	150.92 (490)	7.08 (23)	ROANOKE IRON BR. WKS.	R	NE
Fluvanna	1002		3	40.66 (132)	7.39 (24)		R	NE
Fluvanna	1004	SC-24-150	8	117.04 (380)	7.39 (24)	VA BRIDGE & IRON CO./ALLEY CONST.	R	NE
Franklin	6057		1	24.64 (80)	3.7 (12)	ROANOKE BR. COMPANY	R	NE
Franklin	6089	No Match	4	39.73 (129)	3.7 (12)	ROANOKE IRON BR. CO.	R	NE
Franklin	6197	L-5?	1	31.42 (102)	3.7 (12)		P	NE
Franklin	6403	(2)LL-3 or Sim.	2	55.44 (180)	3.7 (12)	ROANOKE BRIDGE CO? (Diebler)	R	NE
Front Royal	1901	No Match	12	592.9 (1925)	12.94 (42)		R	NE
Giles	1010	No Match	13	391.16 (1270)	11.09 (36)		R	NE
Giles	6019	L21/LL-4	6	238.08 (773)	4.93 (16)	VA BRIDGE & IRON CO	P	E
Giles	6045	No Match	4	48.66 (158)	3.39 (11)		P	NE
Giles	6047	No Match	2	48.66 (158)	4.31 (14)		R	NE
Giles	6048	L-5 (short)	4	55.13 (179)	3.7 (12)	CHAMPION BRIDGE CO	P	NE
Giles	6067	L-5 (short)	4	52.98 (172)	3.7 (12)	CHAMPION BRIDGE CO	P	NE
Giles	6193	No Match	1	28.34 (92)	3.7 (12)	VA BRIDGE & IRON CO	P	NE
Grayson	1007	SC-24-120 (5)	7	276.28 (897)	7.7 (25)	ROANOKE IRON BR. WKS.	R	E
Grayson	1009	SC-24-75	3	43.74 (142)	7.7 (25)		R	NE
Grayson	1013	SC-24-75	3	52.36 (170)	7.08 (23)		R	NE
Grayson	6102	Std 50-5 (Diebler)	3	45.89 (149)	4.31 (14)	PENN BRIDGE CO (Diebler)	P	NE
Halifax	1012	(2)SC-24-105	4	95.79 (311)	7.39 (24)	VA BRIDGE & IRON CO	R	NE
Halifax	1024	SC-24-105	7	93.02 (302)	8.62 (28)	FREDERICKSBURG BR CO	R	NE
Halifax	1985	SC-24-75	3	43.74 (142)	7.39 (24)		R	NE
Halifax	6166	Not Std.	1	40.04 (130)	8.62 (28)	WISCONSIN BR & IRON	R	NE
Hanover	1012	SC-24-90(80' span)	3	48.36 (157)	7.39 (24)	GRESHAM BRIDGE CO	R	NE
Hanover	6061	Sim. to LL-3	1	25.26 (82)	4 (13)		R	NE
Henry	6007	Modified SC-24-90	2	64.68 (210)	7.39 (24)	VA BRIDGE & IRON CO	R	NE
Henry	6017	SC-24-60	1	20.02 (65)	8.01 (26)	ROANOKE IRON BR. WKS.	R	NE
Henry	6026		1	28.95 (94)	7.39 (24)		R	NE
Henry	6129	Not Std.	5	121.97 (396)	7.08 (23)		R	NE

Inventory of Virginia's Metal Truss Bridges

DISTRICT	COUNTY/CITY	BRIDGE NO.	ROUTE NO.	CROSSING ID	CONST. YEAR	BRIDGE TYPE
Salem	Henry	6136	636	Smith River	1910	Through Camelback
Salem	Henry	6172	630	North Mayo River	1922	Pony Pratt Full Slope
Salem	Henry	6236	646	Carolina & NW RR	?/1964	Pony Pratt Full Slope
Staunton	Highland	1016	250	Bullpasture River	1927	Pony Warren w/ Verticals
Staunton	Highland	6001	603	Back Creek	1905	Through Pratt Full Slope
Staunton	Highland	6002	606	Jackson River	1938	Through Pratt Full Slope
Staunton	Highland	6012	614	Cowpasture River	1916	Through Pratt Full Slope
Staunton	Highland	6034	645	Crab Run	1896	Pony Lane
Bristol	Lee	1026	58	So. Fork Powell River	1940	Pony Warren Polygonal Hybrid
Bristol	Lee	6010	612	Wallens Creek	1922	Pony Warren w/ Verticals
Bristol	Lee	6013	615	Wallens Creek	1932a	Pony Warren w/ Verticals
Bristol	Lee	6014	616	Wallens Creek	1932a	Through Warren w/ Verticals
Bristol	Lee	6031	633	Cane Creek	1916/1962	Pony Pratt Full Slope
Bristol	Lee	6045	654	Wallens Creek	1932a	Pony Warren w/ Verticals
Bristol	Lee	6076	699	Indian Creek	1932a	Pony Pratt Full Slope
Bristol	Lee	6498	833	Powell River	?/1966	Through Parker
Bristol	Lee	6507	811	Indian Creek	1923	Pony Warren w/ Verticals
Bristol	Lee	9011	Discontinued	No. Fork Powell River	1932	Pony Pratt Full Slope
NOVA	Loudoun	6051	673	No. Fork Catoctin Creek	1925/193?	Through Pratt Full Slope
NOVA	Loudoun	6083	729	No. Fork Goose Creek	1994	Pony Accrow
Culpeper	Louisa	6037	647	South Anna River	1916	Pony Pratt Full Slope
Culpeper	Louisa	6057	695	South Anna River	1929	Pony Pratt Full Slope
Culpeper	Louisa	6058	699	South Anna River	1932	Pony Pratt Full Slope
Richmond	Lunenburg	6033	631	Knights Creek	1920	Pony Pratt Full Slope
Culpeper	Madison	1001	15	Robinson River	1929	Pony Warren w/ Verticals
Culpeper	Madison	1006	231	Robinson River	1928	Pony Warren Hybrid
Culpeper	Madison	1008	231	White Oak Run	1932	Pony Warren w/ Verticals
Bristol	Marion	8003	E. Chilhowie St.	Mid. Fork Holston River	1885/1958	Through Pratt Full Slope
Richmond	Mecklenburg	1002	1	Roanoke River	1928	Through Warren Continuous
Richmond	Mecklenburg	6061	677	Allens Creek	1913	Pony Warren w/ Verticals
Richmond	Mecklenburg	6905	601	Aarons Creek	1912	Pony Pratt Full Slope
Richmond	Mecklenburg	6907	604	Aarons Creek	1910	Through Pratt Full Slope
Richmond	Mecklenburg	6910	633	Meherrin River	1910	Pony Warren w/ Verticals
Fredericksburg	Middlesex	1959	3	Rappahannock River	1957	Deck/Through Warren w/Verticals
Salem	Montgomery	1903	11	New River/N&W RR	1949	Deck Warren w/Verticals
Salem	Montgomery	1904	114	New River	1939	Through Warren Polygonal
Salem	Montgomery	6019	613	Little River	1916	Through Parker

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COUNTY/CITY	BRIDGE NO.	PLAN NUMBER	NO. OF SPANS	LENGTH M (ft.)	WIDTH M(ft.)	BUILDER	RIVET/PIN CONNECTION	RATING
Henry	6136	L-9 (2)	2	105.95 (344)	4.93 (16)	VA BRIDGE & IRON CO	P	NE
Henry	6172	Not Std.	3	41.58 (135)	4.93 (16)	CHAMPION BRIDGE CO	R	NE
Henry	6236	L-7	1	28.03 (91)	4.62 (15)	ROANOKE BRIDGE CO? (Diebler)	R	NE
Highland	1016	SC-24-90	1	28.95 (94)	7.39 (24)		R	NE
Highland	6001	No Match	1	31.42 (102)	4 (13)		P	E
Highland	6002	No Match	3	45.89 (149)	5.24 (17)		P	NE
Highland	6012	No Match	2	47.12 (153)	5.85 (19)	VA BRIDGE & IRON CO	R	NE
Highland	6034	Lane Patent	1	12.01 (39)	4 (13)	W VA BRIDGE WRKS	Other	E
Lee	1026	SM-24-105	6	83.16 (270)	7.7 (25)		R	NE
Lee	6010	LL-9	1	19.71 (64)	5.24 (17)	ROANOKE IRON BR. CO.	R	NE
Lee	6013	Not Std.	1	22.48 (73)	4 (13)		R	NE
Lee	6014	Not Std.	1	26.18 (85)	4.31 (14)		P	NE
Lee	6031	No Match	2	33.26 (108)	3.7 (12)	VA BRIDGE & IRON CO	R	NE
Lee	6045	L-37	1	22.79 (74)	3.7 (12)		R	NE
Lee	6076	L-10	1	28.03 (91)	3.7 (12)		R	NE
Lee	6498	No Match	4	108.72 (353)	4.93 (16)		P	NE
Lee	6507	No Match	1	20.94 (68)	4.93 (16)	ROANOKE IRON BR. WKS.	R	NE
Lee	9011	LL-1?	3	41.27 (134)	4 (13)		R	NE
Loudoun	6051	No Match	1	49.28 (160)	4.31 (14)	VARIETY IRON WRKS CO	P	E
Loudoun	6083	Mfg. Standard	1	25.56 (83)	3.7 (12)	ACCROW BRIDGE CO	Other	NE
Louisa	6037		3	36.04 (117)	4 (13)	VA BRIDGE & IRON CO	R	NE
Louisa	6057		1	25.56 (83)	4 (13)		R	NE
Louisa	6058		1	32.03 (104)	4 (13)		R	NE
Lunenburg	6033	VB&I Co. "Tall A Frame"	3	25.87 (84)	4.31 (14)	VA BRIDGE & IRON CO	P	NE
Madison	1001	SC-24-60	3	44.66 (145)	8.01 (26)	ROANOKE IRON BR. WKS.	R	NE
Madison	1006	SC-24-105	1	33.88 (110)	8.01 (26)	VA BRIDGE & IRON CO	R	NE
Madison	1008	SC-24-90	1	28.95 (94)	7.39 (24)		R	NE
Marion	8003		1	26.18 (85)	5.54 (18)	KING IRON BRIDGES CO.	P	E
Mecklenburg	1002		16	347.42 (1128)	7.39 (24)		R	NE
Mecklenburg	6061	Mo Match	1	15.09 (49)	3.7 (12)	YORK BRIDGE CO	R	NE
Mecklenburg	6905	LL-1	3	26.18 (85)	4 (13)	VA BRIDGE & IRON CO	R	NE
Mecklenburg	6907	No Match	1	32.03 (104)	3.39 (11)		P	NE
Mecklenburg	6910	Std. L-4?	2	31.11 (101)	3.39 (11)		R	NE
Middlesex	1959		44	3076.61 (9989)	7.08 (23)		R	NE
Montgomery	1903	No Match	9	457.07 (1484)	20.94 (68)		R	NE
Montgomery	1904	SC-24-150 (2) retrofitted?	12	317.55 (1031)	7.7 (25)		R	NE
Montgomery	6019	No Match	4	95.17 (309)	3.7 (12)	CHAMPION BRIDGE CO/VDHT	R	NE

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DISTRICT	COUNTY/CITY	BRIDGE NO.	ROUTE NO.	CROSSING ID	CONST. YEAR	BRIDGE TYPE
Salem	Montgomery	6132	773	Roanoke River	1917	Through Camelback
Salem	Montgomery	6250	636	So. Fork Roanoke River	?/1963	Pony Warren
Salem	Montgomery	6910	813	Roanoke River	1924	Pony Warren w/ Verticals
Lynchburg	Nelson	6006	613	Rockfish River	1920	Through Pratt Full Slope
Lynchburg	Nelson	6052	653	Norfolk-Southern RR	1882	Through Pratt Full Slope
Lynchburg	Nelson	6258	638	Williams Creek	1922	Pony Warren w/ Verticals
Lynchburg	Nelson	6909	827	Piney River	1925	Pony Warren w/ Verticals
Suffolk	Northampton	1006	13	Chesapeake Bay	1964	Through Warren Polygonal
Richmond	Nottoway	6907	645	Nottoway River	1932	Through Pratt Full Slope
Staunton	Page	1004	340	Jeremiahs Run	1936	Deck Arch
Staunton	Page	1990	340	Overall Creek	1938	Deck Arch
Staunton	Page	6033	654	Hawksbill Creek	1908	Through Pratt Full Slope
Staunton	Page	6903	604	Naked Creek	?/1956	Pony Pratt Half Hip
Salem	Patrick	6070	648	Dan River	1922	Pony Pratt Full Slope
Salem	Patrick	6153	772	Spoon Creek	1932	Deck Warren w/Verticals
Lynchburg	Pittsylvania	1018	40	Pigg River	1933	Pony Warren w/ Verticals
Lynchburg	Pittsylvania	6005	605	Roaring Fork Creek	1932a	Pony Warren Hybrid
Lynchburg	Pittsylvania	6085	676	Whitethorn River	1915	Through Pratt Full Slope
Lynchburg	Pittsylvania	6090	710	Whitethorn Creek	1910	Pony Pratt Full Slope
Lynchburg	Pittsylvania	6111	701	Sandy Creek	1946	Pony Warren Hybrid
Lynchburg	Pittsylvania	6197	841	So. Branch Sandy River	1932	Pony Warren Hybrid
Lynchburg	Pittsylvania	6275	832	Bannister River	1932	Pony Pratt Full Slope
Richmond	Powhatan	6046	684	Sallee Creek	1935	Pony Pratt Full Slope
Richmond	Powhatan	6910	681	Appomattox River	1932	Pony Warren w/ Verticals
NOVA	Prince William	6023	646	Norfolk-Southern RR	1882	Through Pratt Full Slope
NOVA	Prince William	6029	656	Kettle Run/Broad Run	1914	Pony Warren w/ Verticals
NOVA	Prince William	6041	692	Broad Run	1930	Through Camelback
Culpeper	Rappahannock	1007	522	So. Fork Thornton River	1928	Pony Warren w/ Verticals
Culpeper	Rappahannock	6043	637	Jordon River	1909	Pony Pratt Full Slope
Richmond	Richmond City	1826	161	James River/CSX+S. RR/Kanawha C	1925/1955	Deck Warren Modified
Richmond	Richmond City	2835	95	James River/ Rts. 60&360/CSX RR	1958	Deck Warren w/Verticals
Salem	Roanoke City	8002	First Street	Norfolk-Southern RR	1900	Pony Warren w/ Verticals
Salem	Roanoke City	8064	Ninth Street	Roanoke River	1943	Pony Pratt Full Slope
Staunton	Rockbridge	1024	130	Maury River	1931	Pony Warren Hybrid
Staunton	Rockbridge	1050	251	Buffalo Creek	1954	Through Pratt Full Slope Skew
Staunton	Rockbridge	6052	611	No. Fork Buffalo Creek	1931	Pony Warren w/ Verticals
Staunton	Rockbridge	6097	644	Colliers Creek	1916	Through Pratt Full Slope

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COUNTY/CITY	BRIDGE NO.	PLAN NUMBER	NO. OF SPANS	LENGTH M (ft.)	WIDTH M(ft.)	BUILDER	RIVET/PIN CONNECTION	RATING
Montgomery	6132	L-21	1	47.43 (154)	4.93 (16)	CHAMPION BRIDGE CO	P	NE
Montgomery	6250	No Match	3	39.73 (129)	4.62 (15)		R	NE
Montgomery	6910		7	97.33 (316)	5.85 (19)	ATLANTIC BRIDGE CO./VDHT	R	NE
Nelson	6006	No Match	1	34.8 (113)	5.54 (18)	PITTSBURGH BRIDGE CO	P	NE
Nelson	6052	Not Std.	3	42.5 (138)	5.85 (19)	KEYSTONE BRIDGE CO	P	E
Nelson	6258	LL-7	1	16.63 (54)	6.16 (20)	ATLANTIC BRIDGE CO.	R	NE
Nelson	6909	L-4?	1	22.18 (72)	4.93 (16)		R	NE
Northampton	1006	Not Std 326' Span	17	1169.78 (3798)	8.62 (28)		R	E
Nottoway	6907	No Match	10	103.49 (336)	3.39 (11)		P	NE
Page	1004	A-24-120	6	80.7 (262)	8.01 (26)		R	E
Page	1990	A-24-120	5	75.46 (245)	8.01 (26)		R	E
Page	6033	No Match	2	45.58 (148)	4 (13)	CANTON BRIDGE CO	P	NE
Page	6903	No Match	1	25.26 (82)	5.24 (17)		P	NE
Patrick	6070	LL-3	2	28.95 (94)	3.7 (12)	ROANOKE IRON BR. WKS.	R	NE
Patrick	6153	No Match	3	21.56 (70)	4.93 (16)		R	NE
Pittsylvania	1018		5	80.7 (262)	7.7 (25)		R	NE
Pittsylvania	6005	U. S. Army	1	28.64 (93)	5.85 (19)	U.S.ARMY	R	NE
Pittsylvania	6085	L-30	3	55.75 (181)	6.16 (20)	VA BRIDGE & IRON CO	P	NE
Pittsylvania	6090	L-7	4	60.06 (195)	4.93 (16)	ROANOKE BRIDGE CO	R	NE
Pittsylvania	6111	U. S. Army	1	28.64 (93)	5.85 (19)	U.S. ARMY	R	NE
Pittsylvania	6197	U. S. Army	1	27.72 (90)	5.85 (19)	U.S. ARMY	R	NE
Pittsylvania	6275	SC-24-75	3	49.9 (162)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Powhatan	6046	SC-24-75	3	40.66 (132)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Powhatan	6910	SC-24-90	4	56.98 (185)	7.7 (25)		R	NE
Prince William	6023	Not Std.	1	24.08 (78)	4.93 (16)	KEYSTONE BRIDGE CO	P	E
Prince William	6029	Mo Match	1	15.4 (50)	4.31 (14)		R	NE
Prince William	6041	No Match	1	56.82 (152)	4.62 (15)	ROANOKE IRON BR. WKS.	R	NE
Rappahannock	1007	SC-24-60	1	19.4 (63)	8.01 (26)	ROANOKE IRON BR. WKS.	R	NE
Rappahannock	6043		1	24.95 (81)	4 (13)	VA BRIDGE & IRON CO	P	NE
Richmond City	1826	No Match	31	625.86 (2032)	8.62 (28)		R	NE
Richmond City	2835	No Match	51	1288.98 (4185)	24.95 (80)		R	NE
Roanoke City	8002		5	97.33 (316)	5.54 (18)		R	NE
Roanoke City	8064	(3)SC-24-75(Sim.)	3	61.6 (200)	10.16 (33)		R	NE
Rockbridge	1024	(2)SC-24-105	6	126.28 (410)	7.39 (24)		R	NE
Rockbridge	1050	No Match	3	72.69 (236)	7.39 (24)		P	NE
Rockbridge	6052		1	19.4 (63)	5.24 (17)	ROANOKE IRON BR. WKS.	R	NE
Rockbridge	6097	L-15-2	1	30.8 (100)	4 (13)	ROANOKE IRON BR. WKS.	R	NE

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DISTRICT	COUNTY/CITY	BRIDGE NO.	ROUTE NO.	CROSSING ID	CONST. YEAR	BRIDGE TYPE
Staunton	Rockbridge	6145	746	Calfpasture River	1890	Through Pratt Full Slope
Staunton	Rockbridge	6160	683	Broad Creek	1932a	Pony Pratt Half Hip
Staunton	Rockingham	6037	636	Boone Run	1932a	Pony Pratt Half Hip
Staunton	Rockingham	6043	650	Cub Run	1905	Through Pratt Full Slope
Staunton	Rockingham	6071	717	Smith Creek	1915	Pony Pratt Full Slope
Staunton	Rockingham	6088	734	Muddy Creek	1920	Pony Pratt Full Slope
Staunton	Rockingham	6095	748	Spring Creek	1925	Pony Warren w/ Verticals
Staunton	Rockingham	6100	752	Beaver Creek	1920	Pony Pratt Half Hip
Staunton	Rockingham	6154	1421	Linville Creek	1898	Through Thatcher
Staunton	Rockingham	6157	782	Linville Creek	1915	Pony Pratt Full Slope
Staunton	Rockingham	6159	817	Turner Run	1915	Pony Pratt Full Slope
Staunton	Rockingham	6251	727	North River	1916/1961	Through Pratt Full Slope
Staunton	Rockingham	6901	602	Shenandoah River	1954	Through Warren Polygonal
Bristol	Russell	6011	606	Copper Creek	1916	Pony Warren w/ Verticals
Bristol	Russell	6096	652	Clinch River	1898	Through Pratt Full Slope
Bristol	Russell	6102	676	Moccasin Creek	?/1956	Pony Warren w/ Verticals
Bristol	Scott	1007	58	Cove Creek	1929	Pony Warren w/ Verticals
Bristol	Scott	1010	58	Holston River	1930	Through Warren w/ Verticals
Bristol	Scott	1026	65	Stony Creek	1926	Pony Warren w/ Verticals
Bristol	Scott	6012	613	Moccasin Creek	1921	Pony Pratt Full Slope
Bristol	Scott	6013	613	Moccasin Creek	1921	Pony Pratt Full Slope
Bristol	Scott	6065	649	Cove Creek	1932a	Pony Warren w/ Verticals
Bristol	Scott	6106	692	Holston River	1910	Pony Pratt Full Slope
Bristol	Scott	6116	714	Opossum Creek	1932a	Pony Warren w/ Verticals
Bristol	Scott	6140	627	Copper Creek	1909	Pony Pratt Full Slope
Bristol	Scott	6240	632	Opossum Creek	1921	Pony Pratt Full Slope
Bristol	Scott	6487	682	Copper Creek	1911/1963	Pony Pratt Full Slope
Staunton	Shenandoah	1011	11	No. Fork Shenandoah River	1933	Through Warren Polygonal
Staunton	Shenandoah	1959	11	Cedar Creek	1929	Pony Pratt Full Slope
Staunton	Shenandoah	6021	621	Cedar Creek	1932/1942	Pony Warren w/Verticals w/ Vertical End Post
Staunton	Shenandoah	6058	691	Stoney Creek	1932/1942	Pony Warren w/Verticals w/ Vertical End Post
Bristol	Smyth	6023	620	Holston River	1932	Pony Warren w/ Verticals
Bristol	Smyth	6025	620	Holston River	1932a	Pony Pratt Full Slope
Bristol	Smyth	6034	624	Holston River	1921	Through Pratt Full Slope
Bristol	Smyth	6037	629	Holston River	1928	Through Pratt Full Slope
Bristol	Smyth	6086	687	Holston River	1932a	Through Pratt Full Slope
Suffolk	Southampton	1006	35	Nottoway River	1929	Through Warren Hybrid

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COUNTY/CITY	BRIDGE NO.	PLAN NUMBER	NO. OF SPANS	LENGTH M (ft.)	WIDTH M(ft.)	BUILDER	RIVET/PIN CONNECTION	RATING
Rockbridge	6145	Not Std.	2	80.39 (261)	7.7 (25)	GROTON BRIDGE MFG CO	P	E
Rockbridge	6160	No Match	1	16.94 (55)	4.62 (15)	VARIETY IRON WRKS CO	P	NE
Rockingham	6037	No Match	1	16.63 (54)	4 (13)	WROUGHT IRON BR CO? (Deibler)	P	NE
Rockingham	6043	No Match	1	40.96 (133)	4 (13)	CANTON BRIDGE CO? (Deibler)	P	NE
Rockingham	6071	VBIW A-Frame	2	39.42 (128)	4.31 (14)	VA BRIDGE & IRON CO	P	NE
Rockingham	6088	VBIW A-Frame	1	17.86 (58)	4.31 (14)	VA BRIDGE & IRON CO (Deibler)	P	NE
Rockingham	6095		1	17.25 (56)	4 (13)	CHAMPION BRIDGE CO	R	NE
Rockingham	6100	No Match	4	45.58 (148)	4 (13)	CANTON BRIDGE CO	P	NE
Rockingham	6154	Not Std.	1	40.96 (133)	4 (13)	WROUGHT IRON BR CO	P	E
Rockingham	6157	No Match	1	26.59 (86)	3.7 (12)	AMERICAN BRIDGE CO.	P	NE
Rockingham	6159	LL-1?	1	15.4 (50)	4 (13)	WALKER BROS.	P	NE
Rockingham	6251	No Match	2	64.99 (211)	5.24 (17)	ROANOKE BR & IRON CO	P	NE
Rockingham	6901	SC-24-150 (4)	6	224.53 (729)	8.01 (26)	T.A. LOVING & SONS	R	NE
Russell	6011	L-37	1	20.02 (65)	3.7 (12)	VDHT	R	NE
Russell	6096	Not Std.	2	69.3 (225)	3.7 (12)	GROTON BRIDGE MFG CO	P	NE
Russell	6102	L-37	1	20.02 (65)	3.7 (12)		R	NE
Scott	1007	Sim. to L-37 (longer)	1	19.4 (63)	38.19 (124)	TWIN CITY BOILER WORKS	R	NE
Scott	1010	SC-24-140	3	76.38 (248)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Scott	1026	SC-24-90	1	28.95 (94)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Scott	6012	LL-3	2	30.8 (100)	3.7 (12)	CHAMPION BRIDGE CO/VDHT	R	NE
Scott	6013	LL-3	2	30.49 (99)	3.7 (12)	CHAMPION BRIDGE CO/VDHT	R	NE
Scott	6065	No Match	1	15.09 (49)	3.39 (11)		R	NE
Scott	6106	(2)L-2 (1)L-7	3	59.44 (193)	3.7 (12)		R	NE
Scott	6116	Sim to L-37 (longer)	1	22.18 (72)	3.7 (12)		R	NE
Scott	6140	N-16(Diebler)-not found	2	32.96 (107)	4 (13)		R	NE
Scott	6240	LL-3	1	24.08 (78)	3.7 (12)	CHAMPION BRIDGE CO/VDHT	R	NE
Scott	6487	L-15	1	32.03 (104)	4 (13)		R	NE
Shenandoah	1011	SC-24-150	3	70.22 (228)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Shenandoah	1959	SC-24-75	4	53.59 (174)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Shenandoah	6021		2	27.72 (90)	5.24 (17)	VDHT	R	NE
Shenandoah	6058		2	44.35 (144)	5.24 (17)		R	NE
Smyth	6023	Sim to L-37 (longer)	1	22.79 (74)	3.7 (12)		R	NE
Smyth	6025		1	25.56 (83)	3.7 (12)		R	NE
Smyth	6034	Mo Match	1	31.42 (102)	3.7 (12)	ROANOKE IRON BR. WKS.	P	NE
Smyth	6037	No Match	1	31.42 (102)	3.7 (12)	ROANOKE IRON BR. WKS.	P	NE
Smyth	6086	No Match	1	29.88 (97)	3.7 (12)		P	NE
Southampton	1006	SC-24-120 (2)	26	278.43 (904)	8.01 (26)		R	NE

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DISTRICT	COUNTY/CITY	BRIDGE NO.	ROUTE NO.	CROSSING ID	CONST. YEAR	BRIDGE TYPE
Fredericksburg	Spotsylvania	6913	658	North Anna River	1943	Pony Pratt Full Slope
Suffolk	Sussex	1006	40	Nottoway River	1936	Pony Warren w/ Verticals
Suffolk	Sussex	1008	40	Nottoway River	1934	Pony Warren w/ Verticals
Suffolk	Sussex	1014	301	Nottoway River	1928	Pony Warren Hybrid
Bristol	Tazewell	6013	610	Little River	1947	Pony Pratt Full Slope
Bristol	Tazewell	6113	717	Bluestone River	1912	Pony Warren w/ Verticals
Bristol	Tazewell	6135	1201	Clinch River	1932a	Pony Warren w/ Verticals
Staunton	Warren	1005	340	Gooney Creek	1936	Pony Pratt Full Slope
Staunton	Warren	1015	340/522	Shenandoah R./Norfolk-Southern RR	1941	Deck Warren w/Verticals
Bristol	Washington	6108	670	So. Fork Holston River	1949	Through Warren Continuous
Bristol	Washington	6272	712	Holston Creek	1932a	Through Camelback
Staunton	Waynesboro	6059	650	South River	1932	Pony Warren w/ Verticals
Bristol	Wise	6006	609	Powell River	1920	Pony Pratt Full Slope
Bristol	Wise	6088	674	Powell River	1942	Pony Warren w/ Verticals
Bristol	Wise	6204	790	Powell River	1929	Pony Pratt Full Slope
Bristol	Wythe	1005	11	Reed Creek	1931	Deck Warren Hybrid
Bristol	Wythe	1012	21	Cripple Creek	1933	Pony Pratt Full Slope
Bristol	Wythe	1017	52	New River	1931	Through Warren Continuous
Bristol	Wythe	1028	100	New River	1941	Deck Warren w/Verticals
Bristol	Wythe	1902	421	Reed Creek	1932	Through Warren w/ Verticals
Bristol	Wythe	6016	619	Cripple Creek	1948	Through Pratt Full Slope
Bristol	Wythe	6021	625	Reed Creek	1932a	Pony Pratt Full Slope
Bristol	Wythe	6074	749	Cripple Creek	1929	Pony Warren w/ Verticals

Inventory of Virginia's Metal Truss Bridges

COUNTY/CITY	BRIDGE NO.	PLAN NUMBER	NO. OF SPANS	LENGTH M (ft.)	WIDTH M(ft.)	BUILDER	RIVET/PIN CONNECTION	RATING
Spotsylvania	6913		3	55.75 (181)	4 (13)		P	NE
Sussex	1006		6	78.85 (256)	7.08 (23)		R	NE
Sussex	1008		4	53.9 (175)	7.7 (25)	VA BRIDGE & IRON CO	R	NE
Sussex	1014	SC-24-105	4	79.46 (258)	7.08 (23)		R	NE
Tazewell	6013	No Match - Sim. to LL-6	3	40.04 (130)	3.7 (12)		R	NE
Tazewell	6113	No Match	1	22.18 (72)	3.7 (12)	VA BRIDGE & IRON CO	R	NE
Tazewell	6135	Sim to L-37 (longer)	4	65.3 (212)	3.7 (12)		R	NE
Warren	1005	SC-24-75	4	53.59 (174)	7.39 (24)	ROANOKE IRON BR. WKS.	R	NE
Warren	1015	No Match	10	335.72 (1090)	13.55 (44)		R	NE
Washington	6108		6	298.45 (969)	5.54 (18)		R	NE
Washington	6272	No Match	1	47.12 (153)	3.7 (12)	VA BRIDGE & IRON CO	P	NE
Waynesboro	6059		1	25.26 (82)	4 (13)	CHAMPION BRIDGE CO	R	NE
Wise	6006	L-3	1	16.63 (54)	3.7 (12)		R	NE
Wise	6088	Std L-4 (Not Found)	1	22.48 (73)	3.7 (12)		R	NE
Wise	6204	SC-24-75	1	24.08 (78)	3.7 (12)		R	NE
Wythe	1005		6	85.62 (278)	7.39 (24)		R	E
Wythe	1012	SC-24-75	3	42.2 (137)	7.7 (25)		R	NE
Wythe	1017	SC-24-120 (3)/Cont.	6	237.16 (770)	7.08 (23)		R	E
Wythe	1028		9	261.49 (849)	7.39 (24)		R	NE
Wythe	1902	SC-24-140?	1	44.35 (144)	7.7 (25)	VA BRIDGE & IRON CO	R	NE
Wythe	6016		2	44.35 (143)	4.62 (15)	PHOENIX BRIDGE CO.?	P	E
Wythe	6021	Sim. to LL-5	1	17.56 (57)	3.7 (12)		R	NE
Wythe	6074	SC-24-60	4	39.73 (129)	8.01 (26)	ROANOKE IRON BR. WKS.	R	NE

APPENDIX F

BRIDGE ELIGIBILITY RATING SHEET

BRIDGE ELIGIBILITY RATING SHEET

District: ______________________ County: ____________________________________

Structure No.: _______ Route: ________ Crossing: ______________________________

I. Categories

A. DHR Theme(s): ____________________________

B. Period(s) of Significance: ____________________

C. Area(s) of Significance: ____________________

D. National Register Criteria: ____________________

II. Assignment of Basic Points

A.	Level of Significance (local, regional, state, national)	5	7	10	15	
		none	somewhat	yes	very	
B.	Visual Prominence as a Landmark	0	1	2		
C.	Rarity of Bridge Type	0	1	2	3	
D.	Rarity of Design Elements	0	1	2	3	
E.	Technological Significance (early example)	0	1	2	3	
F.	Integrity of Bridge (Condition, Degree of Modifications)0	1	2	3	4	
G.	Contextual Integrity (1) General Surroundings	0	1	2		
	(2) Immediate and associated transportation resources	0	1	2		
H.	Historic Significance and Associative Value (including builder)	0	1	2	3	4

A SURVEY OF METAL TRUSS BRIDGES IN VIRGINIA

Errata sheet:

p.23. Under the entry for Augusta County Structure No. 6081, the route number should read "Rt. 683."

p.24. Under the entry for Loudoun County Structure No. 6051, the final sentence in this entry should read: "Not rated; previously entered on National Register."

p.50-A. Under the entry for Augusta County Structure No. 6081, the National Register eligibility rating should read "E" (e.g. eligible for National Register).