1. Name of Property

historic name: CHESAPEAKE AND OHIO 2755 STEAM LOCOMOTIVE
other name/site number:

2. Location

street & number: 500 feet from jct. of Little Buffalo Creek Road and Park Route 801
not for publication: N/A
city/town: Henlawson
county: Logan
state: West Virginia
zip code: 25624
code: 045
code: WV

3. State/Federal Agency Certification

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

Randall Reid-Smith, SHPO                      Date

West Virginia Division of Culture and History
State or Federal agency and bureau

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

Signature of Certifying Official/Title               Date

State or Federal agency and bureau
4. National Park Service Certification

I, hereby certify that this property is:  

___ entered in the National Register  
    See continuation sheet.  
___ determined eligible for the National Register  
    See continuation sheet.  
___ determined not eligible for the National Register  
___ removed from the National Register  
___ other (explain):  
______________________________________________________________________________  
______________________________________________________________________________

5. Classification

Ownership of Property:  
(Check as many boxes as apply)

___ private  
___ public-local  
X  public-State  
___ public-Federal  

Category of Property:  
(Check only one box)

___ building(s)  
___ district  
___ site  
X  structure  
___ object

Number of Resources within Property  
(Do not include previously listed resources in the count.)

Contributing  

Noncontributing  

buildings  

sites  

structures  

objects  

TOTAL

Name of related multiple property listing  
N/A  
(Enter "N/A" if property is not part of a multiple property listing.)

Number of contributing resources previously listed in the National Register  
0
Chesapeake and Ohio 2755 Steam Locomotive
Logan, West Virginia

Name of Property
County and State

6. Function or Use

<table>
<thead>
<tr>
<th>Historic Functions</th>
<th>Current Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation/Rail-related/Locomotive</td>
<td>Other/Static Locomotive Display</td>
</tr>
</tbody>
</table>

7. Description

Architectural Classification
Materials

OTHER: K-4 Class Locomotive
Foundation: N/A
Walls: N/A
Roof: N/A
Other: Steel

Narrative Description
(See continuation sheets)

8. Statement of Significance

Applicable National Register Criteria
(Mark "X" in one or more boxes for the criteria qualifying the property for National Register listing.)

  X  A Property is associated with events that have made a significant contribution to the broad patterns of our history.

  _____ B Property is associated with the lives of persons significant in our past.

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

  _____ D Property has yielded, or is likely to yield, information important in prehistory or history.
Chesapeake and Ohio 2755 Steam Locomotive
Logan, West Virginia

Name of Property

Criteria Considerations
(Mark "X" in all the boxes that apply.)

Property is:
_____ A owned by a religious institution or used for religious purposes.
_____ B removed from its original location.
_____ C a birthplace or grave.
_____ D a cemetery.
_____ E a reconstructed building, object, or structure.
_____ F a commemorative property.
_____ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
TRANSPORTATION
ENGINEERING

Period of Significance
1947-1956

Significant Dates
1947

Significant Person
(Complete if Criterion B is marked above)

Cultural Affiliation
N/A

Architect/Builder
Lima Locomotive Works, Lima, Ohio

Narrative Statement of Significance
(See continuation sheets)
Chesapeake and Ohio 2755 Steam Locomotive
Logan, West Virginia

Name of Property
County and State

=====================================================================

9. Major Bibliographical References
=====================================================================

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

Previous documentation on file (NPS):

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

Primary location of additional data:

_____ State Historic Preservation Office
_____ Other State agency
_____ Federal agency
_____ Local government
_____ University
X Other

Name of Repository: West Virginia Division of Natural Resources, Parks and Recreation
Section, Building 3, 1900 Kanawha Blvd., East, Charleston, WV 25305

=====================================================================

10. Geographical Data
=====================================================================

Acreage of Property: Approximately 2/10 acre

UTM References (Place additional UTM references on a continuation sheet.)

Quad Map Name: CHAPMANVILLE, W.VA.

17 411200 4194196
Zone  Easting  Northing

Verbal Boundary Description
(See continuation sheet.)

Boundary Justification
(See continuation sheet.)
Chesapeake and Ohio 2755 Steam Locomotive
Logan, West Virginia

Name of Property                               County and State

=====================================================================  

11. Form Prepared By

=====================================================================  

Name: Thomas F. Lambert and assistance from WV SHPO staff

Date: December 16, 2005

Street & Number: 26 Nedra Drive               Telephone: 304 736-7349

City or Town: Barboursville                  State: West Virginia

Zip: 25504-1023

=====================================================================  

Property Owner

=====================================================================  

Name: Mr. Bob Beanblossom, Director
West Virginia Division of Natural Resources
Parks and Recreation Section

Street & Number: Building 3, 1900 Kanawha Blvd., East

City or Town: Charleston                       State: West Virginia    Zip: 25305

Telephone: 304 558-2764

=====================================================================  

Architectural Description:

The setting of the 2755 is largely rural and mountainous. As it is located in the context of a state park, the surroundings are forested hillsides. Within view of the locomotive is the park’s museum building. The setting of steep hillsides and narrow valleys continues to typify the locomotive’s operating environment during its period of significance. Generally speaking, the locomotive is a structure comprised of steel billets, castings, and sheets.

The introduction of the 2-8-4 wheel arrangement by the Lima Locomotive Works in 1925 is generally accepted as the commencement of the “Super Power” era of the North America steam locomotive. The term has generally been used to denote large road locomotives with relatively high drivers, large fireboxes and relatively high working pressures. One characteristic generally considered to be essential was a four-wheel, and, in some cases, a six-wheel trailing truck. The key event in the development of the steam locomotive designs was a successful method of delivering high temperature superheated to the cylinders. This was a “Schmidt” superheater, designed by William Schmidt, 1859-1924.

A superheated locomotive, for the same amount of fuel burned, would produce 25 to 30% more power than one of the same specifications but retaining saturated steam. Although its introduction was not without problems, all road locomotives were being built superheated, and many roads were extensively retrofitting superheaters to existing locomotives. Lima Locomotive Works built 147 steam locomotives of various classes for the Chesapeake and Ohio Railway between 1925 and 1948.

The Chesapeake and Ohio Railway purchased ninety, Class K, 2-8-4, “Kanawhas”, twenty from the Lima Locomotive Works and seventy from the American Locomotive Company between 1943 and 1947. These locomotives were numbered 2700 to 2789. All of the 90 locomotives had 69” diameter drivers, 26” x 34” cylinders, a 245 psi boiler pressure, they exerted 69,350 pounds of tractive effort and each weighed about 292,500 pounds. The C&O’s 2755 was in the third order of “Kanawha” Steam Locomotives, 2750-2759, and the second order constructed by Lima. The construction number for this order was 9296. The 2755 and the 2756 are the only locomotives of the 2750-2759 order that have been preserved. The 2756 is on display in Huntington Park adjacent to the War Memorial Museum on the James River in Newport News, Virginia.

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1 Wenstein, Edward G., “Berkshires (and Kanawhas)”
2 Chesapeake and Ohio Historical Society, “C & O Steam Roster by Years”
3 SteamLocomotive.com, “Chesapeake and Ohio Kanawha Type Locomotives”
4 Email from Scott Lindsay dated 12-24-05
Principle dimensions /statistics of the K-4 class are as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th>K-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Numbers:</td>
<td>2750-2759</td>
</tr>
<tr>
<td>Builder</td>
<td>Lima Locomotive Works</td>
</tr>
<tr>
<td></td>
<td>Lima, Ohio</td>
</tr>
<tr>
<td>Built</td>
<td>1947</td>
</tr>
<tr>
<td>Builder’s Order</td>
<td>1198</td>
</tr>
<tr>
<td>Weight: Lbs.</td>
<td></td>
</tr>
<tr>
<td>Driver’s</td>
<td>293,100</td>
</tr>
<tr>
<td>Engine Truck</td>
<td>48,500</td>
</tr>
<tr>
<td>Trailing Truck</td>
<td>128,080</td>
</tr>
<tr>
<td>Engine Total</td>
<td>469,680</td>
</tr>
<tr>
<td>Tender</td>
<td>394,100</td>
</tr>
<tr>
<td>Engine and Tender</td>
<td>863,780</td>
</tr>
</tbody>
</table>

| Boiler Pressure | 245 psi   |
| Cylinders (Diameter x stroke) | 26” x 34” |
| Firebox         | 135 1/16” x 96 ¼” |
| Grate area      | 90 sq. ft. |
| Total Heat, Surface | 4,714”  |

| Tractive Effort | 69,350 lbs. |
| Tractive Effort Booster | 14,000 lbs. |
| Total Track Effort | 83,350 lbs. |

<p>| Factor of Adhesion | 4.23        |
| Cylinder Horse Power | 2,979      |</p>
<table>
<thead>
<tr>
<th>Name of Property</th>
<th>County and State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesapeake and Ohio 2755 Steam Locomotive</td>
<td>Logan, West Virginia</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Value Gear</th>
<th>Baker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super Heater</td>
<td>Elesco Type E</td>
</tr>
<tr>
<td>Feedwater Heater</td>
<td>Worthington Type 5 ½ SSA</td>
</tr>
<tr>
<td>Stoker</td>
<td>HT</td>
</tr>
<tr>
<td>Franklin Booster</td>
<td>E-1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drivers</th>
<th>69”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driving Wheel Base</td>
<td>18’ 3”</td>
</tr>
<tr>
<td>Length Engine</td>
<td>56’ 4/1/2”</td>
</tr>
<tr>
<td>Length over couplers</td>
<td>105’ 1 7/8”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tender Class</th>
<th>21-RG</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Tender capacity:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>30 tons</td>
</tr>
<tr>
<td>Water</td>
<td>21,000 gallons</td>
</tr>
</tbody>
</table>
Statement of Significance

The Chesapeake & Ohio 2755 Steam Locomotive is considered significant under Criterion A for Transportation and Criterion C for Engineering. The period of significance begins with the locomotive’s construction in 1947, and ends in 1956. During the period of significance, the locomotive operated continuously as a coal hauler on the Logan Subdivision.

The Chesapeake and Ohio Railroad began with the merger of the Virginia Central and the Covington & Ohio Railroads. It later acquired the Chicago, Cincinnati & Louisville Railroad, the Pere Marquette and the Baltimore & Ohio. By 1987 when it was taken over by CSX it also had incorporated the Western Maryland Railroad.

The C&O 2755 Steam Locomotive is an integral part in the history and development of the railroad business and coal mining industry in West Virginia. The period of significance begins with the locomotive’s construction in 1947, and ends with a nine year cut-off point in 1956. During this period the 2755 pulled coal trains on the C&O Railway’s Logan Subdivision. Under Criterion A for Transportation, the locomotive is significant as a physical representative of the C&O’s continued use of steam power into the post WWII period. Under Criterion C for Engineering, the locomotive is a significant example of the final generation of American steam engines that featured the hallmarks of augmented power and increased efficiency in the face of competition from Diesel technology. The engine exhibits a high amount of physical integrity, being operated only a short time, then going into protected storage. The locomotive was obtained from the C&O by the West Virginia Division of Natural Resources and placed by them in March, 1961 in their Chief Logan State Park, near Henlawson.

Criterion A: Transportation

During World War Two, the C&O turned to the 2-8-4 wheel arrangement to handle the fast freight schedules demanded by war-time needs. The C&O had watched the development of the 2-8-4 on the Nickel Plate Road and the Pere Marquette through the “Advisory Mechanical Committee” which was common to the four railroads controlled by the Van Sweringens. It based its 2-8-4 design on the NKP and Pere Marquette “Berkshires.” However, it chose to name them “Kanawhas” after the Kanawha River, which paralleled its main line.6

6 SteamLocomotive.com, “Chesapeake and Ohio Kanawha Type Locomotives”
The development of the 2-8-4 wheel arrangement for steam locomotives was a result of an effort by the Lima Locomotive Works to improve on the speed and horse power of the USRA Mikado (2-8-2) locomotive, which was designed by the United States Railroad Administration during World War I. The USRA design had difficulty keeping up steam over long periods and often experienced wheel slippage.7

The big 2-8-4’s first saw service between Stevens yard, near Cincinnati, Ohio and Hinton, West Virginia, including the various branch mainlines between, and/or Clifton Forge-Richmond-New Port News region, the two low-grade ends of the road. They were an immediate hit with the road and yard crews and the “Big Mikes”, as the crews affectionately called them, soon became Chessie’s most versatile performers. At home in any road service, the K-4s were soon lugging coal drags, thundering along with merchandise trains, and speeding heavy passenger runs.8 With their 69’ drivers, the K-4’s were certainly not in the racehorse class but given a heavy passenger train and moderate to heavy grades to overcome the Kanawha could move the passengers with the best of them. Some regularly supplemented the 4-8-4’s between Hinton and Charlottesville, and for a time handled the GEORGE WASHINGTON between Ashland and Lexington, Kentucky, and were frequently used for regular power on other parts of the road during rush seasons or shopping cycles.

C&O ordered 10 K-4’s, 2750-2759, from Lima in 1946 for early 1947 delivery.9 By mid 1952, the C&O had received enough diesels that it had begun to retire even the “Kanawhas”, which still had service time, and by 1957 all were retired. All but the thirteen that were donated to various cities were scrapped by May, 1961. The City of Buffalo, New York, received number 2701 and placed it on display near the waterfront until vandals wrecked it and it was scrapped. There are twelve surviving C&O 2-8-4 “Kanawha” type locomotive. These twelve are the 2700, 2705, 2707, 2716, 2727, 2732, 2736, 2755, 2756, 2760, 2776, and the 2789.10

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7 SteamLocomotive.com, “Berkshires & Kanawhas”
8 SteamLocomotive.com, “Kanawha”
10 SteamLocomotive.com, “Chesapeake and Ohio Kanawha Type Locomotives”
Chesapeake and Ohio 2755 Steam Locomotive

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Criterion C: Engineering

The Advisory Mechanical Committee, after exhaustive studies and tests, had used the most favorable ratios, proportions, and characteristics of the Erie 2-8-4 of 1927 and enlarged them into the famous C&O’s T-1, 2-10-4, built by Lima in 1930. In 1934 the process was applied in reverse from the 2-10-4 and the equally famous NKP Class S 2-8-4 resulted. The Pere Marquette Class N-2-8-4’s (later C&O Class N-3), by Lima in 1937 were, except for larger cylinders and slightly heavier engine weight, virtually duplicates of the NKP design. When it came time for the C&O to place an order for new engines for its low grade territory, it was only natural to pick the proven design of its first cousins, and War Production Board restrictions, limiting orders for new locomotives to existing designs, clinched the deal.11

The Lima Locomotive Works was located in Lima, Ohio between the B&O’s Cincinnati-Toledo line and Nickel Plate’s main line and shops.

Lima Locomotive Works is most famous for developing the Super Power 2-8-4 design. Around 1920, the railroads and locomotives builders were trying various techniques to increase the speed of freight trains. Some approaches used high-pressure boilers, three cylinders, water-tube fireboxes, or all three. William Woodard of Lima Locomotive Works experimented in increasing the grate area to greatly increase the steaming ability of the locomotive. A locomotive with a 100 sq. ft. grate area was constructed. The firebox was so large that it required a four-wheel trailing truck to support it. The 2-8-4 wheel alignment was born. This demonstrator locomotive also had a booster on the rear axle of the trailing truck. It was designated number “1”, Class A-1 and was so successful from the start that a number of railroad lines soon placed orders for more of this type. Lima locomotive Works became famous for developing this design.12

Summary:

The C&O 2755 Steam Locomotive played a fundamental role in the development of coal mining and the railroad industry in West Virginia. The 2755 is significant under Criterion A for Transportation. The 2755 was important to the transportation of coal which fueled the growth for both the coal mining and railroad industry in West Virginia. The 2755 is also significant under Criteria C for Engineering. The design of the 2755 made its type unique to coal mine service in the Appalachian Mountain region. The engineering of the locomotive is also important as a remnant of steam technology used after diesel engines had become the principle

11 SteamLocomotive.com, “Kanawha”
12 SteamLocomotive.com, “Steam Locomotive Builders”
form of power in the railroad industry. The period of significance begins in 1947 with the construction of the 2755 and runs until the cut off in 1956.

A Time Book owned by Bob Withers indicates the 2755 was in tonnage freight service on January 18, 1956 and ran from Handley, West Virginia to Russell, Kentucky. The engineer was Lidge D. Kingery and the fireman was Ralph W. Shelton. This is the last known date of freight service for the 2755. The 2755 was taken out of service in the fall of 1956. On August 22, 1957 Mr. Withers saw the 2755, along with several other steam locomotives, at the Russell, Kentucky yard. His visit to the Russell, Kentucky yard was recorded in a journal he kept of locomotives that he had seen.

An editorial in the Huntington Herald Dispatch dated December 20, 1960 stated, “Logan, W. Va. will soon take possession of one of these old monsters. It will find a new permanent home in the new state park at Henlawson (West Virginia) which is being readied for full State Park status under the STEP program.” The locomotive referred to in this article was the 2755 and the state park was the Chief Logan State Park. Harry Burks, who was one of the engineers for the 2755, had indicated C&O’s Logan Subdivision was the last to be dieselized.

The 2755, after it was taken out of service, went to the C&O’s Russell, Kentucky shops where it stayed until it was sent, in the fall of 1960, to be refurbished at the C&O’s Huntington, West Virginia shop’s prior to its placement at the Chief Logan State Park.

The West Virginia Division of Natural Resources owns the Chesapeake and Ohio 2755 and placed it at their 4,000 acre Chief Logan State Park, Logan, West Virginia in March, 1961. A diesel, which had the 2755 in tow, picked up empty coal cars in Huntington, West Virginia and took them to Peach Creek, West Virginia. A diesel locomotive pushed the 2755 up Little Buffalo Creek from Peach Creek to where it is now located. The track that was in front of and behind where the locomotive stands has been removed.

West Virginia’s Governor, W. W. Barron, accepted the title to the Chesapeake and Ohio 2755 steam locomotive and about four miles of right-of-way from W. I. Dunn, vice-president of the Chesapeake and Ohio Railway Company, on September 17, 1961. The park is located in the heart of West Virginia’s southern coalfields four miles north of Logan, West Virginia. The park and town share the name of the Chief of the Cayuga Tribe (also known as the Mingo Tribe). The Merrill Coal Mines, Inc. once operated a mine on the property where the Chief Logan State Park is currently located. Coal was hauled from Merrill’s mine using C&O’s H-4’s and H-6’s to

13 Herald-Advertiser, Huntington, W. V., September 17, 1961
Peach Creek where the Kanawha’s transported the coal on C&O’s mainline to Russell, Kentucky, Chicago, Illinois, Handley and Hinton, W V and to New Port News, Virginia.14

In the 1970’s or early 1980’s, 2755 was badly vandalized. Her windows were broken and her gauges were destroyed by vandals. Anything that could have been stolen was, or was badly damaged by the attempted theft. She was later repaired, her glass replaced, and she was enclosed in a fence for protection.15

The 2755 originality had a 6” Nathan Hooter whistle on it which no longer exists. In the summer of 1996 Steam Operations Corporation did a cosmetic restoration including jacket support system, jacket, paint and lettering in the proper C&O style. In addition, the headlight and class light were repaired and wired for operation.16 John R. Pope, a former employee of the West Virginia Division of Natural Resources created a new version of the Monopoly game entitled, “Wild and Wonderful West Virginia State Parks and Forests: 75th Anniversary Edition”. This edition varies from the original game in that all of the real estate is named after West Virginia’s State Parks and Forests of which one is titled, “Chief Logan State Park” and has a picture of the 2755 under the caption. Members of The Island Creek Model Railroad Club are curators for the 2755 and have a model railroad museum located in a building to the right of where the locomotive is situated.

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14 Archives of the Chief Logan State Park
15 SteamLocomotive.com, “Chesapeake and Ohio Kanawha Type Locomotives”
16 Keith Vernatter, President, Island Creek Model Railroad Club, Peach Creek, West Virginia
United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Chesapeake and Ohio 2755 Steam Locomotive
Logan, West Virginia

Name of Property: Chesapeake and Ohio 2755 Steam Locomotive
County and State: Logan, West Virginia

Section number: 9
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Bibliography

Chesapeake and Ohio Historical Society, “C & O Steam Roster by Years”

SteamLocomotive.com, “Chesapeake and Ohio Kanawha Type Locomotives”

Email from Scott Lindsay dated 12-24-05

Weinstein, Edward G, “Berkshires (and Kanawhas)”


SteamLocomotive.com, “Berkshires and Kanawhas”

SteamLocomotive.com. “Kanawha”

SteamLocomotive.com, “Steam Locomotive Builders”


Archives from the Chief Logan State Park, Logan, West Virginia

Vernatter, Keith, President, Island Creek Model Railroad Club, Peach Creek, West Virginia
Verbal Boundary Description

The nomination boundary for the Chesapeake and Ohio 2755 Steam Locomotive encompasses only the locomotive and tender and the track and ground upon which it stands.

Boundary Justification

The nomination boundary includes only the locomotive and its tender, excluding the unrelated structures that are a part of the Chief Logan State Park that surround it, within the fenced enclosure.
Chesapeake and Ohio 2755 Steam Locomotive

Photographer: Alan Rowe
Date: May 2006
Images: Digital

Photo 1 of 6: Camera facing southwest.
Photo 2 of 6: Camera facing northwest
Photo 3 of 6: Camera facing north.
Photo 4 of 6: Rear of 2755’s tender indicating it holds 21,000 gallons of water and 30 tons of coal. Camera facing north.
Photo 5 of 6: 2755’s 69” cylinders. Camera facing north.
Photo 6 of 6: Camera facing west.