

NATIONAL HISTORIC LANDMARK NOMINATION

NPS Form 10-900

USDI/NPS NRHP Registration Form (Rev. 8-86)

OMB No. 1024-0018

LEAP-THE-DIPS

Page 1

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

1. NAME OF PROPERTY

Historic Name: LEAP-THE-DIPS

Other Name/Site Number: N/A

2. LOCATION

Street & Number: 700 Park Avenue

Not for publication: N/A

City/Town: Altoona

Vicinity: N/A

State: PA

County: Blair

Code: 013

Zip Code: 16602

3. CLASSIFICATION

Ownership of Property

Private: ___

Public-Local: X

Public-State: ___

Public-Federal: ___

Category of Property

Building(s): ___

District: ___

Site: ___

Structure: X

Object: ___

Number of Resources within Property

Contributing

1

1

Noncontributing

___ buildings

___ sites

___ structures

___ objects

0 Total

Number of Contributing Resources Previously Listed in the National Register: 1

Name of Related Multiple Property Listing: N/A

Designated a NATIONAL HISTORIC LANDMARK on

JUN 19 1996

by the Secretary of the Interior

LEAP-THE-DIPS

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4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ___ 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 ___ meets ___ does not meet the National Register Criteria.

Signature of Certifying Official

Date

State or Federal Agency and Bureau

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of Commenting or Other Official

Date

State or Federal Agency and Bureau

5. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is:

- ___ Entered in the National Register _____
- ___ Determined eligible for the National Register _____
- ___ Determined not eligible for the National Register _____
- ___ Removed from the National Register _____
- ___ Other (explain): _____

Signature of Keeper

Date of Action

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6. FUNCTION OR USE

Historic: RECREATION & CULTURE Sub: Fair

Current: RECREATION & CULTURE Sub: Fair

7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION: N/A

MATERIALS: Wood

Foundation:

Walls:

Roof:

Other:

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Describe Present and Historic Physical Appearance.

Leap-the-Dips is a Side-Friction Figure Eight roller coaster constructed in 1902 by E. Joy Morris of Philadelphia, Pennsylvania. The roller coaster is located in Lakemont Park in Altoona, Pennsylvania. Lakemont Park was originally developed by the Altoona and Logan Valley Electric Railway Company in the 1890's. The roller coaster and its components occupy roughly a rectangular area measuring 84 feet by 229 feet. The resource consists of the figure eight course of track mounted on a wood trestle support structure, a station pavilion, a small storage shed for the coaster cars, a small shed housing the chain motor, and the individual 2-seat cars.

The site of the ride is currently flat. Early photographs of the ride show a wide swale beneath the ride which was apparently filled in at some point and the lengths of the trestle uprights shortened accordingly. Early photographs also indicate that a section of tangent track leading from the final curve to the station originally contained one small dip which was later replaced by two small dips. These two differences are clearly evident in the attached copy of a photograph of the coaster found in the illustrated booklet, *Lakemont Park* (see bibliography). The date of the photograph and the date of publication of the booklet are not known; however, the booklet contains a listing of railroad excursion fares to the park for the 1902 season, and this listing is referenced in the text. It is presumed that the booklet was published in 1902 or shortly thereafter. In addition, the lowest dip in the middle of the figure eight was deepened slightly to extend it all the way to the ground. These changes have been confirmed by Mr. Richard Roesch.¹ There are no known records as to when or why these changes were made; most information has been handed down by word of mouth, and those directly involved are no longer living.

Except for certain minor changes to construction materials as noted below, all other primary characteristics of the ride are essentially unchanged from the original construction. Leap-the-Dips is an excellent example of the once common Side-Friction Figure Eight roller coaster retaining all of the significant characteristics and details typical of the hundreds of such rides constructed during the first two decades of the twentieth century.

The dominate feature of the resource is the figure eight course of track and the structure on which it is supported. The track's rails consist of a pair of flat longitudinal boards laid parallel to support the weight-bearing non-flanged wheels of the cars and a pair of flat friction boards positioned vertically on each side of the track, which are contacted by separate non-flanged guide wheels mounted vertically on the sides of the cars. Both pairs of boards have thin strips of steel mounted on their surface to provide a hard wearing low-

¹ Mr. Richard Roesch came to Lakemont Park in the 1940's and became a manager. When he first came to the park he worked with those who had been with the park from the early years and had described the two changes in the profile.

LEAP-THE-DIPS

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friction surface for the cars' wheels.² The rails are mounted on a trestle support structure. Each bent of the trestle structure consists of a pair of upright timbers connected by one or more cross ledger boards which support the rails.³ Between the bents additional intermediate ties maintain the gauge of the track and provide additional support for the friction boards.⁴ The bents are connected to each other by diagonal wood bracing.

Leaving the station, the track makes a left turn and descends a short section of tangent track. It then climbs an inclined lift hill to a height of 41 feet which is the highest point on the course of track. A two-stage electrically driven chain hoist pulls the cars to this high point. Originally made of malleable iron, the chain and associated gears are now made of steel. The change from malleable iron to steel occurred in the early 1980s to satisfy insurance requirements. A series of hinged wooden paddles mounted horizontally on each side of the track on the lift hill act as ratchets to prevent the cars from slipping backward down the hill in the event that the chain should break or fail. At the summit of the lift hill the track passes beneath a small peaked, steeple-like roof which extends the total height of the structure to 54 feet.

From the summit the track dips slightly and then follows a gradually descending profile through a series of large radius curves arranged in a series of two and one-half figure eights forming a multi-layered course with the track occupying different levels within the same structure. The width of the figure eight structure measures 84 feet at its widest, and 192 feet from front to back. Where the track passes under itself at the crossings of the figure eights, the profile is broken by a slight dip in the track. After the last curve the track returns to the station over a tangent section containing two small dips. The final 60 feet of this tangent track contains a friction brake for slowing the cars and is covered by a roof measuring 10 feet in width, the purpose of the roof being to keep the brakes dry. The track makes a left turn as it enters the station.

The station consists of an open pavilion at the front of the ride. The rectangular pavilion, measuring 70 feet wide by 37 feet deep, is constructed of wood and is covered by a shingled, steeply pitched hip roof. The front of the station has a low wood platform with benches where passengers can gather and wait for the cars. Behind this low platform is a raised boarding platform reached by steps. The track is behind the boarding platform. Another low platform area behind the track provides space for the ride's operators. A hand-operated friction brake stops the cars as they enter the station.

² Originally the wheels rode directly on wood. The bottom rails were made of sugar maple. The friction boards, originally long leaf pine, were mostly replaced with plywood during the 1950s and 60s as part of routine wood replacement. The steel was added in high stress areas to eliminate wear and tear on the wood and the need for frequent wood replacement. The steel on the bottom rails was added in the dips prior to 1953. The steel was added to the friction boards in the 1950s and 60s.

³ The uprights originally rested on wooden sills placed on the ground. Beginning in the early 1980s, the sills were replaced by concrete slabs for better durability and to eliminate contact between the wooden uprights and the ground.

⁴ The intermediates were originally wood. Many of these were replaced with steel in the late 1960s for greater durability and ease of construction as the wooden intermediates used mortise and tenon construction.

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Extending from the rear of the station at an acute angle is a wooden shed measuring 60 feet long by 21 feet wide. This shed is used for the storage of the cars. The shed consists of a series of adjacent stalls each measuring 9 feet wide by 21 feet deep and a transfer track running the length of the shed past the open fronts of the stalls. A small, movable platform containing a short section of track is mounted on the transfer track and can be pushed between the main track in the station and any of the individual stalls.

A small wooden shed measuring 18 feet by 19 feet is located near the base of the lift hill of the main structure and houses the motor which drives the lift hill chain hoist.

The sleigh-like cars are constructed of wood and contain two upholstered seats each wide enough to seat two adults. Each car rests on four non-flanged steel wheels mounted beneath the cars. Two non-flanged steel wheels are mounted vertically on each side of the car for steering the car on the course.

With the side friction figure eight coaster having been obsolete since the beginning of the 1920s, Leap-the-Dips operated for more than six decades during which changes to the economics and availability of labor and materials occurred. As operating machines, wooden roller coasters need frequent maintenance and replacement of materials. Most of the modifications to Leap-the-Dips were made in response to normal maintenance requirements and the changing character of labor and material costs and availability. The noted changes to the small dips are not considered significant. Photos of other figure eights from the period before 1920 indicate small variations in the profile of the final track run including two small dips on some rides. Of the changes in materials, only the addition of steel on the running rails had any effect on the ride operation by reducing frictional losses which resulted in faster running cars. Current plans for restoration of the ride call for the use of wooden intermediate ties and no steel on the running rails.

Aside from changes related primarily to the track as noted, most of Leap-the-Dips is as originally constructed. The station pavilion, storage shed, and cars are original. None of the noted changes alter the essential character of the side-friction figure eight style of coaster of which Leap-the-Dips is the only remaining example. These essential characteristics, which were common to all figure eights, consist of the figure eight plan and profile and the side friction track system.

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8. STATEMENT OF SIGNIFICANCE

Certifying official has considered the significance of this property in relation to other properties:
Nationally: X Statewide: Locally:

Applicable National Register Criteria: A X B C X D

Criteria Considerations (Exceptions): A B C D E F G

NHL Criteria: 4

NHL Theme [1987]: XXXIV. Recreation
 B. Spectator Pastimes
 2. Roller Coasters

NHL Theme [1994]: II. Creating Social Institutions and Movements
 4. Recreational Activities

 III. Expressing Cultural Values
 5. Architecture, Landscape Architecture, and Urban Design

Areas of Significance: Entertainment
 Recreation

Period(s) of Significance: 1902-1920

Significant Dates: 1902

Significant Person(s): N/A

Cultural Affiliation: N/A

Architect/Builder: Edward Joy Morris (1860-1929)

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State Significance of Property, and Justify Criteria, Criteria Considerations, and Areas and Periods of Significance Noted Above.

Leap-the-Dips is the last known example of a Side-Friction Figure Eight roller coaster. Side-Friction Figure Eight roller coasters were once common in amusement parks across North America as well as in parks in other parts of the world. Amusement parks first appeared in the latter half of the nineteenth century and quickly became a common and significant form of popular culture and recreation. The development of the roller coaster occurred in parallel with the development of the amusement park and was a signature attraction at nearly all parks. The Side-Friction Figure Eight type of coaster represented an important stage in the technological evolution of the roller coaster.

The early period of the roller coaster, from the appearance of the first commercial coaster at Coney Island in 1884 through the World War I era, was dominated by two technologies: Scenic Railways and Side-Frictions.

Scenic Railways were essentially miniature railways with flanged-wheeled cars running on narrow gauge tracks. Most Scenic Railways had brakemen riding the cars to control the speed of the trains, especially on curves. Many of the rides were constructed fully or partially within buildings, artificial mountains, and other structures housing elaborate scenery, giving rise to the generic term "Scenic Railway".

Side-Friction coasters employed cars with two sets of non-flanged wheels. One set supported the weight of the cars. The other set, called friction wheels, were mounted vertically on the sides of the cars and ran against sideboards mounted on each side of the track, steering the cars on their course. The arrangement gave the appearance of the cars running in a shallow trough. By eliminating concerns of derailments and overturning, Side-Frictions could operate without brakemen and could run at higher speeds, especially on curves.

There were two general types of Side-Frictions: Figure Eights and Non-Figure Eights. The Figure Eight consisted of a gradually descending profile in a multi-layered figure eight plan with the track crossing under itself in the middle several times during the course of the descent. The manufacturer used the term "Toboggan Slide" as a generic name for these rides, but many parks applied their own name. The Figure Eight was very popular, and became a standard fixture in parks across the country and in many other parts of the world during the first two decades of the twentieth century.

The Figure Eight was patented by Edward Joy Morris in 1894. Born in 1860 in Philadelphia, Morris was an early builder and operator of both roller coasters and carousels. In 1895, following his patent for a Figure Eight Toboggan Slide, Morris received a patent for an "Inclined Railway and Water Tobogganing Apparatus", an early chutes ride in which boats descended down an incline to a body of water. Morris was the designer and builder of a chutes and a toboggan at Willow Grove Park which opened near Philadelphia in 1896.

Morris was sued for his chutes device by a Mr. Paul Boyton who had erected a similar chutes ride at Coney Island. The lawsuit was dismissed by a circuit court in 1897, and Morris began installing additional chutes as well as toboggan slides (Figure Eights).

Morris's office was located at 902 Walnut St. in Philadelphia, and the factory was located at 1416-20 Callowhill Street in Philadelphia. The factory was later moved to 23rd and Ludlow Streets in Philadelphia. Additional offices were opened in Des Moines, Iowa and Leavenworth, Kansas. He also maintained an office in North Beach, Queens, New York, a resort where Morris owned land and a Figure Eight. In 1896, Morris's three brothers joined him as salesmen of the chute patent franchise. The name of the firm was the Morris Chute Company.

The Morris Chute Company also began building carousels with the first carousel delivered in 1899 for Chestnut Hill Park in Philadelphia.

By late 1903, when he sold the manufacturing side of his business, Morris had built roller coasters and carousels that he sold, leased, or operated as a concessionaire in numerous parks. A 1904 advertisement for the E. Joy Morris Co. listed 18 parks with the company's Figure Eights and/or carousels in operation by that year including six in Pennsylvania. Lakemont Park is included in the list.¹ Research by Richard Munch has identified a least 250 Figures Eights erected in North America.² Additional Figure Eights are known to have been built outside of North America. Many of these rides are listed as having been built by others. It is not known how many of these rides were built directly by Morris, or by others under contract or license, as opposed to those built as near copies with minor changes to avoid patent infringement. But the many postcards from that era give rise to the belief that most, if not all, of the Figure Eights were built to an identical or nearly identical design. Even the station buildings pictured in many of the postcards have the same architectural features. Thus, unlike most wooden roller coasters which are unique designs customized for each location, the Side-Friction Figure Eights were built to a standard configuration.

In 1903, Morris sold the manufacturing side of his business to two businessmen who founded the Philadelphia Toboggan Company which went on to become a major manufacturer of roller coasters and carousels. Morris continued to operate carousels, Figure Eights, and other rides as a concessionaire in over a dozen parks until 1920. He died in 1929.

Non-Figure Eights were built to a variety of custom plans and profiles and often featured more ups and downs rather than a continuously descending profile.

¹ The advertisement includes a photograph of a Figure Eight. Although the background suggests that the photograph was not taken at Lakemont Park, the coaster appears identical to Leap-the-Dips.

² Munch, Richard. *The 1991 Roller Coaster Directory*. The directory lists over 1,750 roller coasters known to have operated in North America between 1884 and 1990. More than 250 are identified as Figure Eights. Although the list is extensive and is the result of substantial research, it cannot be considered all-inclusive. It is possible that additional Figure Eights existed that could not be identified.

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In the years following World War I, the Scenic Railways and the Side-Friction coasters, both Figure Eights and Non-Figure Eights, were rapidly supplanted by coasters employing the newly-developed under-friction system with safety wheels which made possible the far more intensely thrilling designs typical of the 1920s. This third type of technology placed the friction or guide wheels below the car to run against the sides of deep rails constructed of a stack of several layers of wood, with the boards in some layers wider than others. It also featured an additional set of safety wheels which ride beneath a ledge or lip formed by the wider boards in the stack, thus locking the trains to the track. The under-friction/safety wheel system is the standard technology used for wood coasters to this day.

It is not known when the last Side-Friction Figure Eights were constructed, but by the beginning of the 1920s these rides had fallen out of favor, at least in the United States. It is believed that some Scenic Railways were built in other parts of the world as late as the 1950s.

While a few Scenic Railways are still in operation in other parts of the world, the last Scenic Railway in North America was demolished following the closing of Willow Grove Park near Philadelphia in the late 1970s.

By 1990, there were only two stationary Side-Friction coasters known to exist in the world.³ One was a Non-Figure Eight type, the Giant Coaster, which was constructed at Crystal Beach, Ontario, in 1916. It operated through the 1989 season after which the park closed permanently. The ride stood idle for two years and was subsequently demolished in 1991.⁴

The other surviving Side-Friction is Leap-the-Dips, a Figure Eight built at Lakemont Park in Altoona, Pennsylvania in 1902. It operated through the 1985 season after which the park changed ownership and was substantially re-developed. The entire ride is fully intact. The Leap The Dips Preservation Foundation, Inc. has been founded for the purpose of raising funds to restore and operate it. The Foundation has leased the ride from Blair County (PA) and has full responsibility for it. Fund raising is currently underway.

Leap-the-Dips is the only known remaining Side-Friction Figure Eight coaster in North America.⁵ It is believed to be the last of its kind in the world. It is also the oldest known

³ Portable side friction coasters, as well as portable models of other types of wood coasters, were used in Europe, touring fairs and carnivals. One portable side friction coaster is known to still exist in Europe, although it is not believed to currently be in use. It is not a Figure Eight like Leap-the-Dips, but intersperses figure eights and tangents in its track plan and features more hills in its profile.

⁴ The trains from this coaster survive in the hands of collectors. One car is in the collection of the American Coaster Enthusiasts.

⁵ The American Coaster Enthusiasts publishes an annual census of all the wooden as well as major steel roller coasters standing in North America. Leap-the-Dips is the only side-friction and only figure eight coaster listed in the census. The census is compiled from the collective knowledge and research of the organization's members. The American Coaster Enthusiasts is the world's largest organization of amusement park and roller coaster enthusiasts with more than 4000 members in the United States and 15 foreign countries including Canada, England, Germany and Australia. The organization includes many members who have done substantial historical research and who own extensive collections of amusement park and roller coaster historical

LEAP-THE-DIPS

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standing roller coaster in North America and is believed to be the oldest standing roller coaster in the world. During the first two decades of this century, large numbers of substantially identical rides were in operation in parks across America as well as in other parts of the world. Leap-the-Dips is the sole surviving representative of a very important period in the history of the roller coaster and the amusement park.⁶

information and memorabilia. Some of its members have traveled extensively to ride roller coasters throughout the world. Although coasters outside of North America have not yet been documented as extensively as those in North America, it is currently believed that the locations of all standing wooden roller coasters in the world are known and that Leap-the-Dips is the only remaining roller coaster of its kind in the entire world.

⁶ Leap-the-Dips was not included in an earlier "Recreation in the United States" NHL theme study because the author of that study, understood that no Side-Friction roller coasters survived in the United States. Otherwise, this important and extremely rare property would have been nominated at that time. (Interview with James H. Charleton, former NHL Survey Historian, NPS, November 1995.)

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9. MAJOR BIBLIOGRAPHICAL REFERENCES

Fried, Frederick. "E. Joy Morris and the Evolution of the Philadelphia Toboggan Company." *Merry-Go-Round Up*, 16:1 (Spring 1989), pp. 7-9, 31, 32, 34.

Halterman, Tom E. "Leap-the-Dips," National Register of Historic Places Registration Form, October 16, 1990.

Lakemont Park. Altoona: Critic Press, circa 1902. (Illustrated booklet located with Mary Ellen Leidy, 411 4th Street, Lakemont, Altoona, Pennsylvania 16602.)

Manns, William. "E. Joy Morris, Philadelphia's Forgotten Carousel Builder." *The Carousel News & Trader*, March 1989.

Morris, E. Joy. "Toboggan-Slide." Washington: United States Patent Office. Letters Patent No. 522025, June 26, 1894.

Munch, Richard. *The 1991 Roller Coaster Directory*. Fords: Coaster Posters, 1991.

Pine, William, editor. *A History of Lakemont Park*. Altoona: Lakemont Park Historical Museum, Inc., 1990.

Roesch, Richard R. Former Manager of Lakemont Park: Telephone interview on September 29, 1992; August 12, 1993; and September 17, 1994.

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
 Other (Specify Repository): Author's files

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10. GEOGRAPHICAL DATA

Acreage of Property: Less than one (1) acre.

UTM References: Zone Easting Northing
A 17 720710 4483060

Verbal Boundary Description:

The roller coaster and its component parts fit within a rectangular area measuring approximately 235 feet by 85 feet. The center of the figure eight (not the center of the rectangle) is located approximately 775 feet east and 190 feet north of the intersection of the centerlines of new US Route 220 and Logan Boulevard. (See attached scale map.)

Boundary Justification:

The boundary is a rectangular area drawn to directly encompass the roller coaster and its component parts which have historically been known as Leap-the-Dips.

11. FORM PREPARED BYName/Title: Tom E. Halterman
American Coaster Enthusiasts
2320 Green Street
Philadelphia, Pennsylvania 19130
Telephone: 215/922-8080
Date: November 1995**NATIONAL HISTORIC LANDMARKS SURVEY**

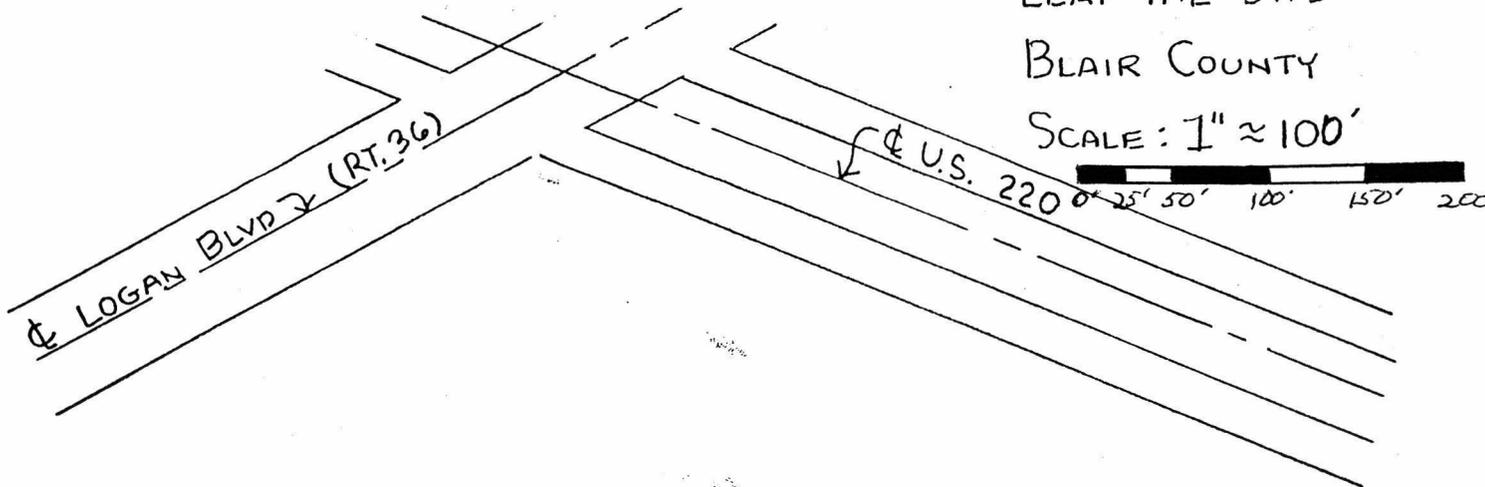
National Park Service/Washington Office

[February 28, 1995]

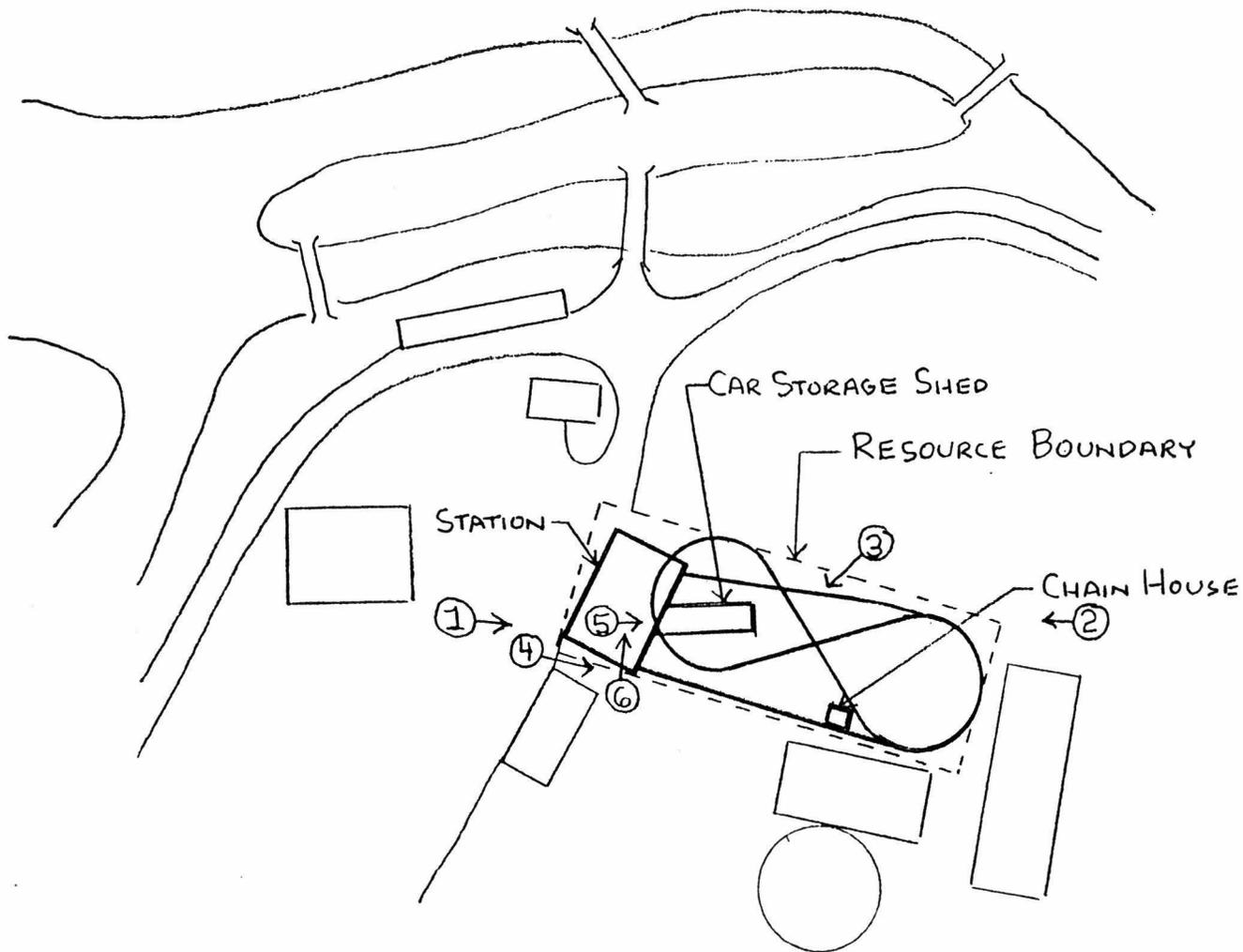
LEAP THE DIPS

BLAIR COUNTY

SCALE: 1" ≈ 100'



→ NORTH



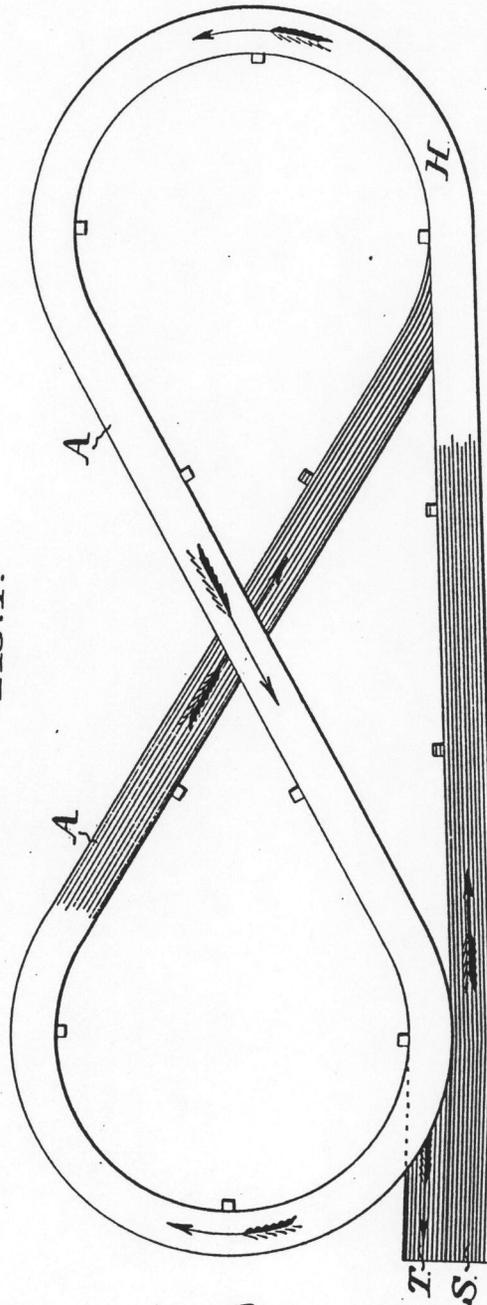
E. J. MORRIS.
TOBOGGAN SLIDE.

No. 522,025.

Patented June 26, 1894.

GRAFTSMAN

FIG. 1.



CHARLES J. JACQUES, JR.
COLLECTION

WITNESSES:

F. Norman Dixon
Thomas K. Lancaster.

E. Joy Morris, INVENTOR

By his Attorneys,
Wm. C. Strawbridge
Bonsall Taylor



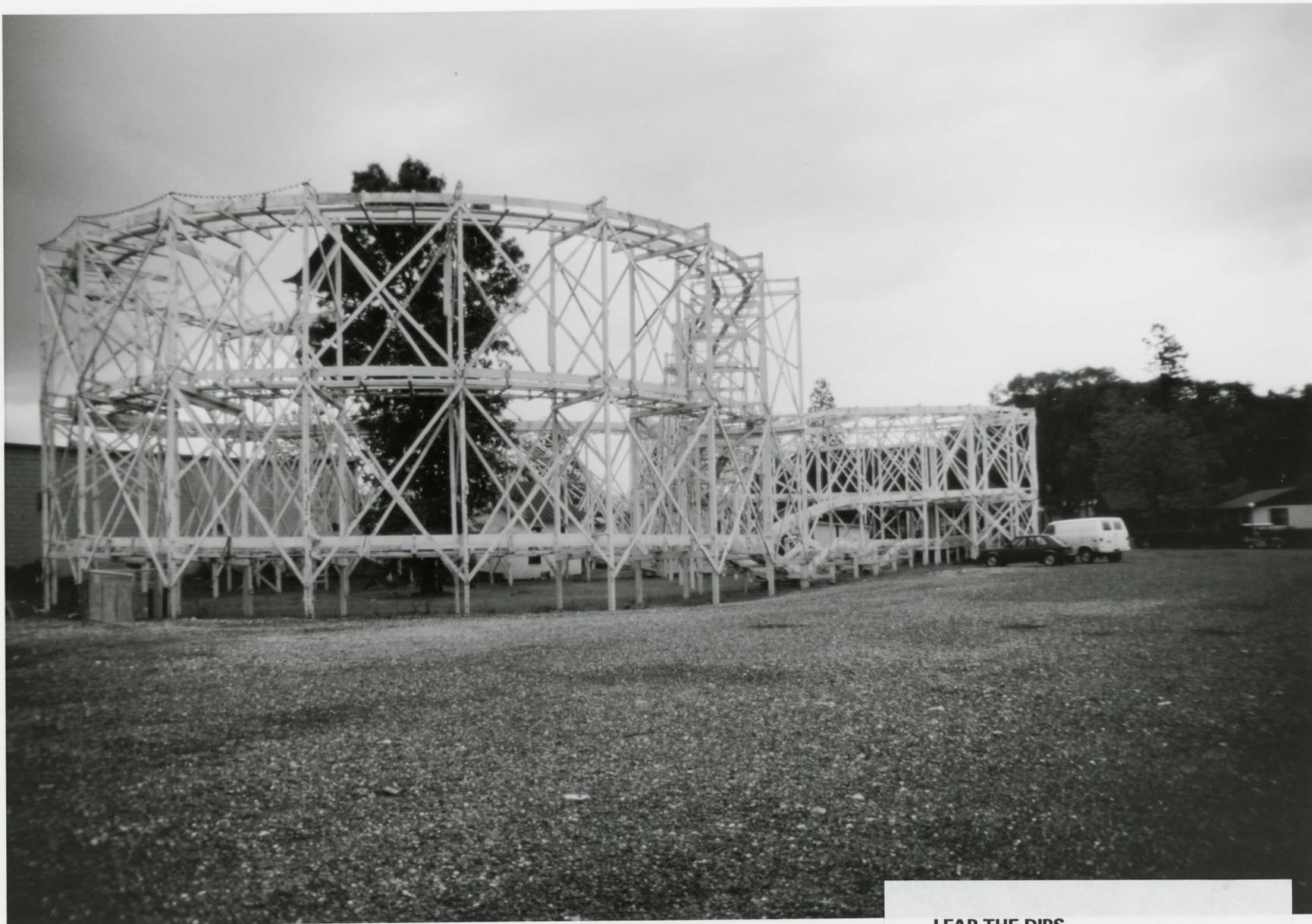
LEAP-THE-DIPS
PHOTO. # 1

LEAP-THE-DIPS
Logan Township, Pennsylvania
General view, showing the station
pavilion
Photo #1: Tom Halterman, 1990



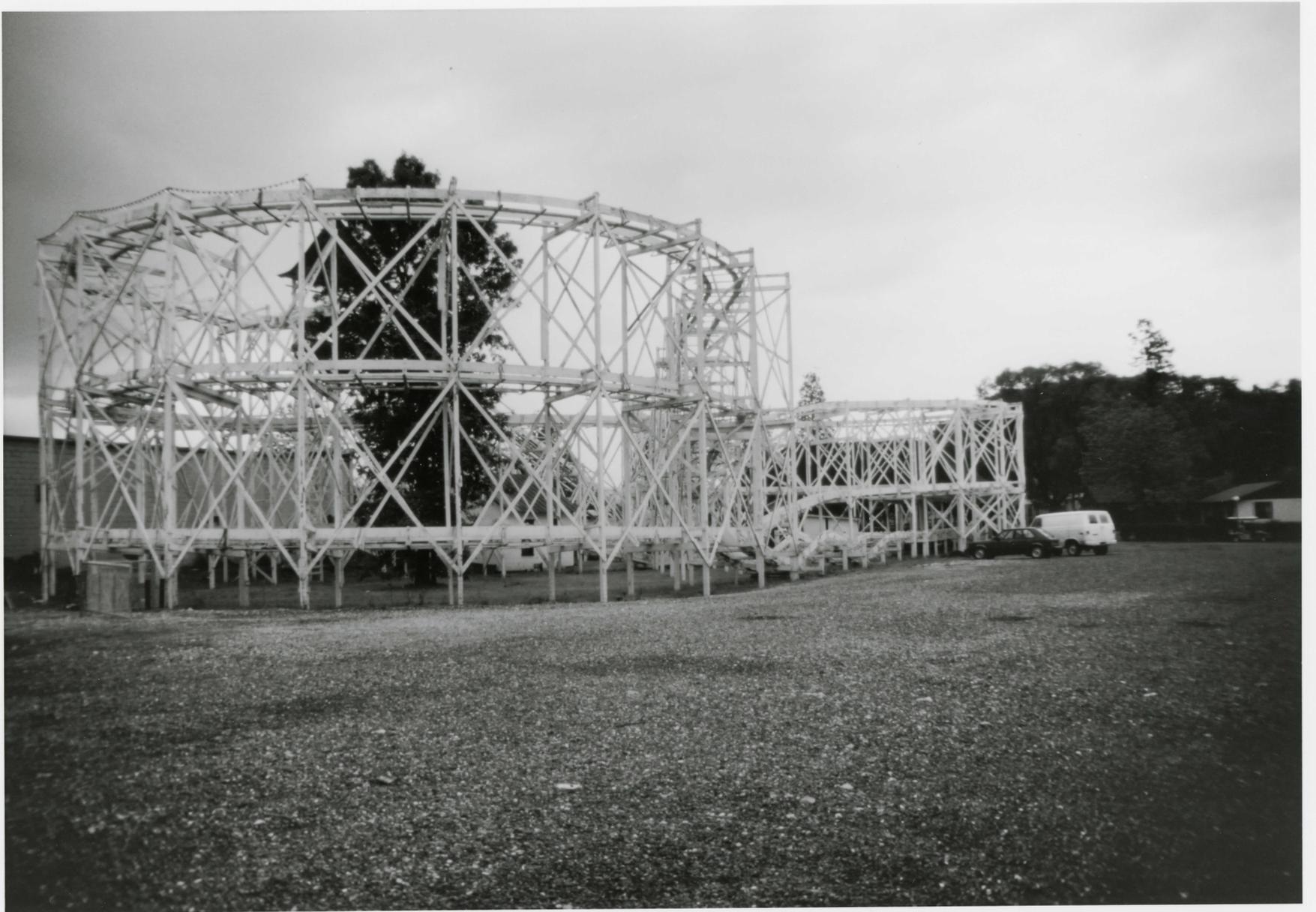
LEAP-THE-DIPS
PHOTO.# 1

LEAP-THE-DIPS
Logan Township, Pennsylvania
General view, showing the station
pavilion
Photo #1: Tom Halterman, 1990



LEAP-THE-DIPS
PHOTO. # 2

LEAP-THE-DIPS
Logan Township, Pennsylvania
View from the rear showing
figure-eight layout
Photo #2: Tom Halterman, 1990



LEAR-THE-DIPS
PHOTO. # 2

LEAP-THE-DIPS
Logan Township, Pennsylvania
View from the rear showing
figure-eight layout
Photo #2: Tom Halterman, 1990



LEAP-THE-DIPS
PHOTO. # 3

LEAP-THE-DIPS
Logan Township, Pennsylvania
Close-up view of the side-friction
type track
Photo #3: Tom Halterman, 1990



LEAP-THE-DIPS
PHOTO. # 3

LEAP-THE-DIPS

**Logan Township, Pennsylvania
Close-up view of the side-friction
type track**

Photo #3: Tom Halterman, 1990



LEAP-THE-DIPS
PHOTO #4

LEAP-THE-DIPS
Logan Township, Pennsylvania
View looking up the lift hill
Photo #4: Tom Halterman, 1990



LEAP-THE-DIPS
PHOTO #4

2

LEAP-THE-DIPS
Logan Township, Pennsylvania
View looking up the lift hill
Photo #4: Tom Halterman, 1990

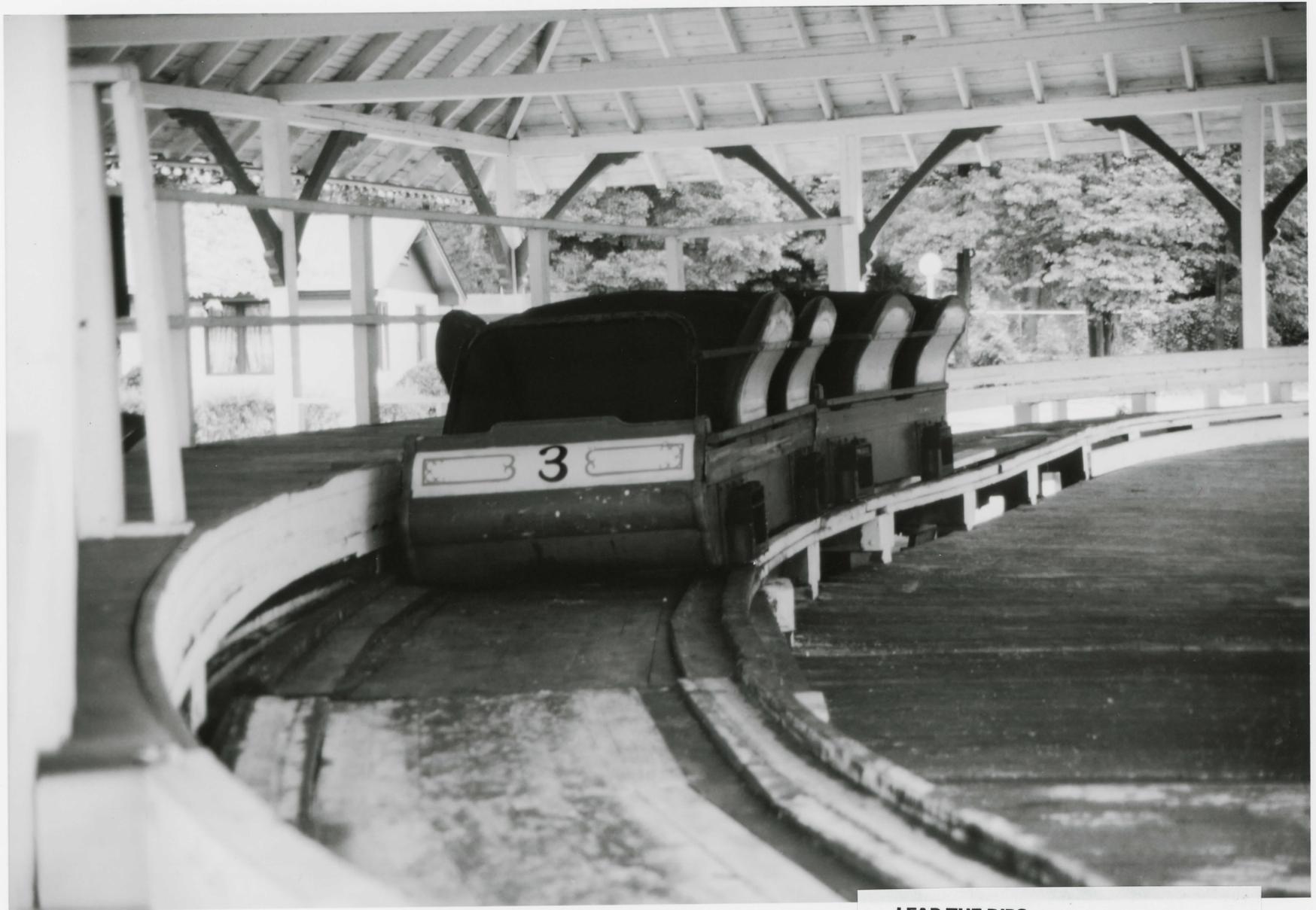




LEAP-THE-DIPS
PHOTO. # 5

LEAP-THE-DIPS
Logan Township, Pennsylvania
View from station platform showing
cars in their stalls
Photo #5: Tom Halterman, 1990

LEAP-THE-DIPS
Logan Township, Pennsylvania
View from station platform showing
cars in their stalls
Photo #5: Tom Halterman, 1990



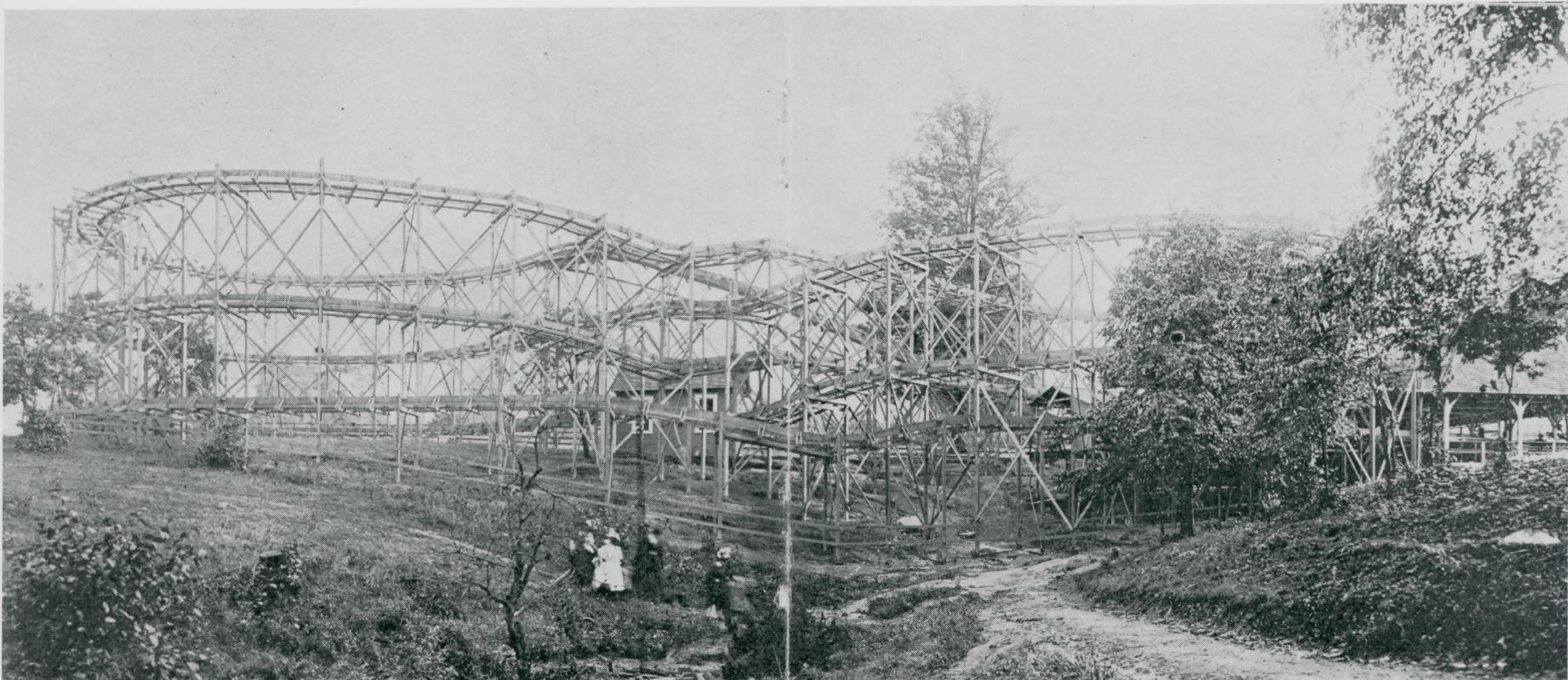
LEAP-THE-DIPS
PHOTO. # 6

LEAP-THE-DIPS
Logan Township, Pennsylvania
View of two car sitting
in the station
Photo #6: Tom Halterman, 1990



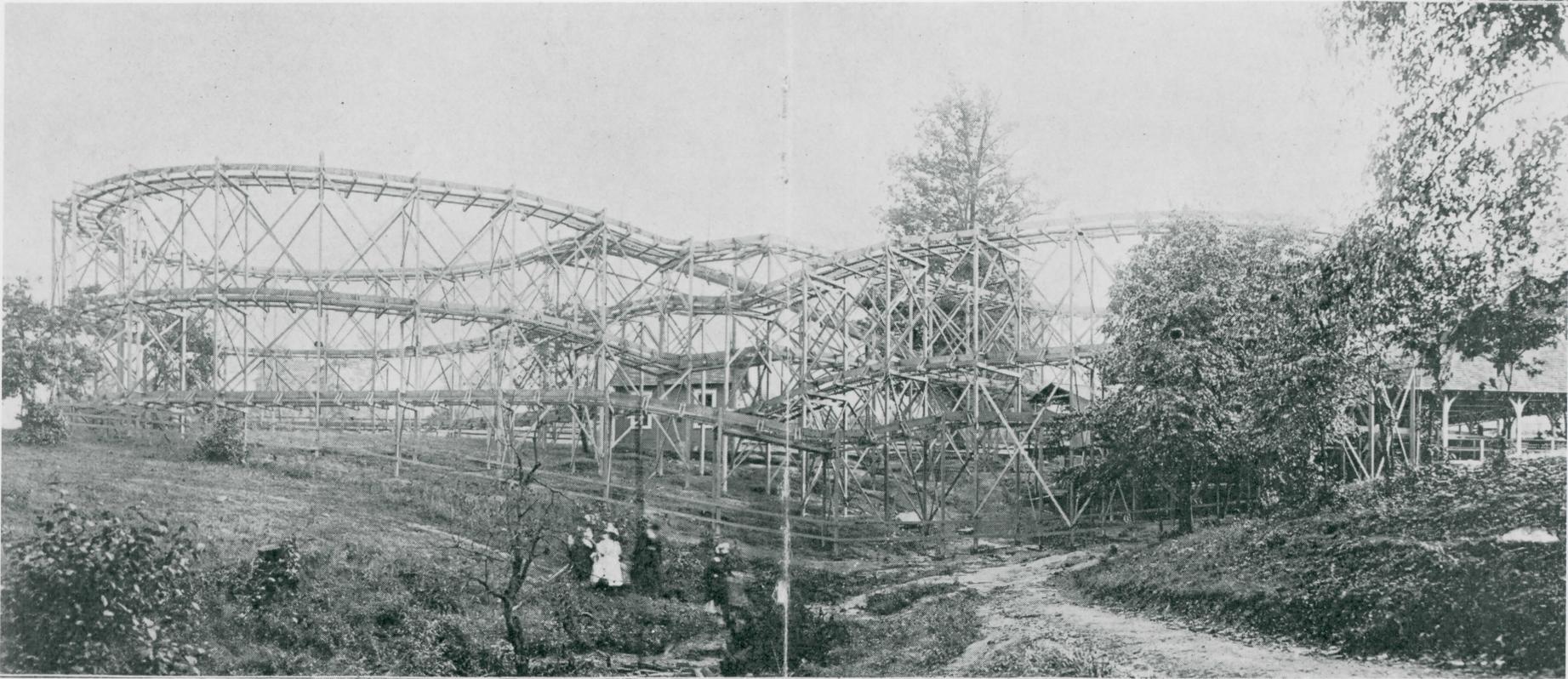
LEAP-THE-DIPS
PHOTO. # 6

LEAP-THE-DIPS
Logan Township, Pennsylvania
View of two car sitting
in the station
Photo #6: Tom Halterman, 1990



LEAP-THE-DIPS
PHOTO # 7

LEAP-THE-DIPS
Logan Township, Pennsylvania
Historic view toward west side of
coaster, single dip in lower track
Photo #7: Unknown, 1902



LEAP-THE-DIPS
PHOTO # 7

BLAIR COUNTY, PA

LEAP-THE-DIPS

**Logan Township, Pennsylvania
Historic view toward west side of
coaster, single dip in lower track
Photo #7: Unknown, 1902**



LEAP-THE-DIPS
PHOTO # 8

LEAP-THE-DIPS
Logan Township, Pennsylvania
Current view toward west side of
coaster, two dips in lower track
Photo #8: Ray J. Ueberroth, 1994

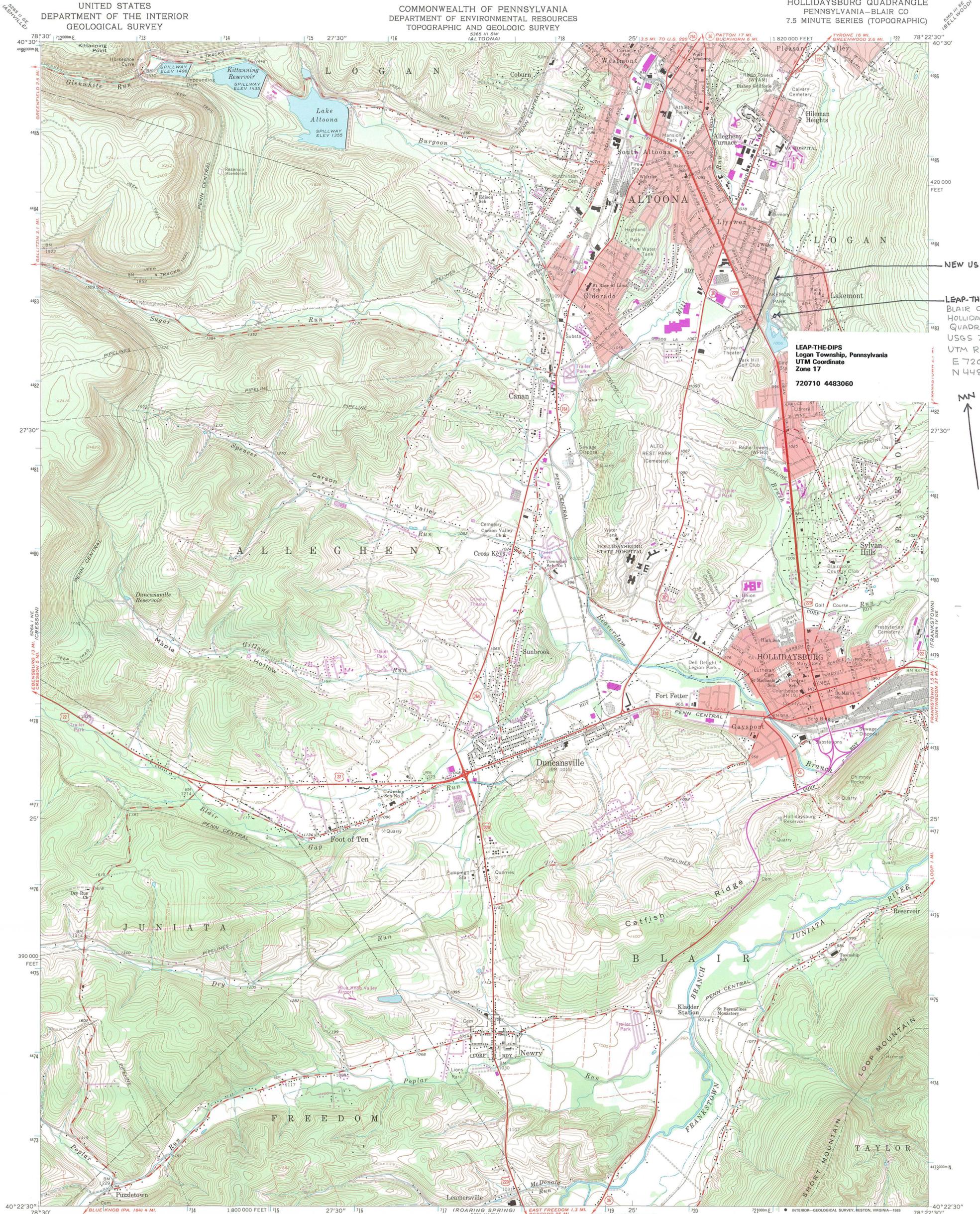


LEAP-THE-DIPS
PHOTO # 8

BLAIR COUNTY, PA

LEAP-THE-DIPS

**Logan Township, Pennsylvania
Current view toward west side of
coaster, two dips in lower track
Photo #8: Ray J. Ueberroth, 1994**



LEAP-THI-DIPS
Logan Township, Pennsylvania
UTM Coordinate
Zone 17
E 720710
N 4483060
720710 4483060



Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial photographs
taken 1962. Field checked 1963
Polyconic projection. 1927 North American datum
10,000-foot grid based on Pennsylvania coordinate system,
south zone
1000-meter Universal Transverse Mercator grid ticks,
zone 17, shown in blue
Fine red dashed lines indicate selected fence and field lines where
generally visible on aerial photographs. This information is unchecked
Red tint indicates areas in which only landmark buildings are shown
To place on the predicted North American Datum 1983,
move the projection lines 5 meters south and
22 meters west as shown by dashed corner ticks

UTM GRID AND 1972 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET
Map photospected 1981
No major culture or drainage changes observed

SCALE 1:24,000
CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
1 KILOMETER
1 MILE
72° 22' 30" N
78° 22' 30" W

ROAD CLASSIFICATION
Heavy-duty ——— Light-duty ———
Medium-duty ——— Unimproved dirt - - - - -
U.S. Route ——— State Route ———

HOLLIDAYSBURG, PA.
40078-D4-TF-024
PHOTOINSPECTED 1981
1963
PHOTOREVISED 1972
DMA 5364 IV NW—SERIES V851

NATIONAL HISTORIC LANDMARK NOMINATION

NPS Form 10-900

USDI/NPS NRHP Registration Form (Rev. 8-86)

OMB No. 1024-0018

LEAP-THE-DIPS

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

1. NAME OF PROPERTY

Historic Name: LEAP-THE-DIPS

Other Name/Site Number: N/A

2. LOCATION

Street & Number: 700 Park Avenue

Not for publication: N/A

City/Town: Altoona

Vicinity: N/A

State: PA

County: Blair

Code: 013

Zip Code: 16602

3. CLASSIFICATION

Ownership of Property

Private: ___

Public-Local: X

Public-State: ___

Public-Federal: ___

Category of Property

Building(s): ___

District: ___

Site: ___

Structure: X

Object: ___

Number of Resources within Property

Contributing

2 ~~0~~ ~~2~~

2 ~~1~~ ~~1~~

4 ~~2~~

Noncontributing

___ buildings

___ sites

___ structures

___ objects

0 Total

Number of Contributing Resources Previously Listed in the National Register: 1

Name of Related Multiple Property Listing: N/A

Should we count
5th floor Pavilion, single
storey shed & small
shed as 2 contrib
resources?
Yes

LEAP-THE-DIPS

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ___ 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 ___ meets ___ does not meet the National Register Criteria.

Signature of Certifying Official

Date

State or Federal Agency and Bureau

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of Commenting or Other Official

Date

State or Federal Agency and Bureau

5. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is:

___ Entered in the National Register _____

___ Determined eligible for the National Register _____

___ Determined not eligible for the National Register _____

___ Removed from the National Register _____

___ Other (explain): _____

Signature of Keeper

Date of Action

LEAP-THE-DIPS

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

6. FUNCTION OR USE

Historic: RECREATION & CULTURE Sub: Fair
~~Roller Coaster~~
~~Amusement Ride~~

Current: Recreation & Culture Sub: Fair

7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION: N/A

MATERIALS: Wood
Foundation:
Walls:
Roof:
Other:

LEAP-THE-DIPS**Page 4**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Describe Present and Historic Physical Appearance.

Leap-the-Dips is a Side-Friction Figure Eight roller coaster constructed in 1902 by E. Joy Morris of Philadelphia, Pennsylvania. The roller coaster is located in Lakemont Park in Altoona, Pennsylvania. Lakemont park was originally developed by the Altoona and Logan Valley Electric Railway Company in the 1890's. The roller coaster and its components occupy roughly a rectangular area measuring 84 feet by 229 feet. The resource consists of the figure eight course of track mounted on a wood trestle support structure, a station pavilion, a small storage shed for the coaster cars, a small shed housing the chain motor, and the individual 2-seat cars. ✓

The site of the ride is currently flat. Early photographs of the ride show a wide swale beneath the ride which was apparently filled in at some point and the lengths of the trestle uprights shortened accordingly. Early photographs also indicate that a section of tangent track leading from the final curve to the station originally contained one small dip which was later replaced by two small dips. These two differences are clearly evident in the attached copy of a photograph of the coaster found in the illustrated booklet, *Lakemont Park* (see bibliography). The date of the photograph and the date of publication of the booklet are not known; however, the booklet contains a listing of railroad excursion fares to the park for the 1902 season, and this listing is referenced in the text. It is presumed that the booklet was published in 1902 or shortly thereafter. In addition, the lowest dip in the middle of the figure eight was deepened slightly to extend it all the way to the ground. These changes have been confirmed by Mr. Richard Roesch.¹ There are no known records as to when or why these changes were made; most information has been handed down by word of mouth, and those directly involved are no longer living. ✓

Except for certain minor changes to construction materials as noted below, all other primary characteristics of the ride are essentially unchanged from the original construction. Leap-the-Dips is an excellent example of the once common Side-Friction Figure Eight roller coaster retaining all of the significant characteristics and details typical of the hundreds of such rides constructed during the first two decades of the twentieth century.

The dominate feature of the resource is the figure eight course of track and the structure on which it is supported. The track's rails consist of a pair of flat longitudinal boards laid parallel to support the weight-bearing non-flanged wheels of the cars, and a pair of flat friction boards positioned vertically on each side of the track, and which are contacted by separate non-flanged guide wheels mounted vertically on the sides of the cars. Both pairs of boards have thin strips of steel mounted on their surface to provide a hard wearing low- ✓

¹ Mr. Richard Roesch came to Lakemont Park in the 1940's and became a manager. When he first came to the park he worked with those who had been with the park from the early years and had described the two changes in the profile.

LEAP-THE-DIPS

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

friction surface for the cars' wheels.² The rails are mounted on a trestle support structure. Each bent of the trestle structure consists of a pair of upright timbers connected by one or more cross ledger boards which support the rails.³ Between the bents additional intermediate ties maintain the gauge of the track and provide additional support for the friction boards.⁴ The bents are connected to each other by diagonal wood bracing.

Leaving the station, the track makes a left turn and descends a short section of tangent track. It then climbs an inclined lift hill to a height of 41 feet which is the highest point on the course of track. A two-stage electrically driven chain hoist pulls the cars to this high point. Originally made of malleable iron, the chain and associated gears are now made of steel. The change from malleable iron to steel occurred in the early 1980s to satisfy insurance requirements. A series of hinged wooden paddles mounted horizontally on each side of the track on the lift hill act as ratchets to prevent the cars from slipping backward down the hill in the event that the chain should break or fail. At the summit of the lift hill the track passes beneath a small peaked, steeple-like roof which extends the total height of the structure to 54 feet.

From the summit the track dips slightly and then follows a gradually descending profile through a series of large radius curves arranged in a series of two and one-half figure eights forming a multi-layered course with the track occupying different levels within the same structure. The width of the figure eight structure measures 84 feet at its widest, and 192 feet from front to back. Where the track passes under itself at the crossings of the figure eights, the profile is broken by a slight dip in the track. After the last curve the track returns to the station over a tangent section containing two small dips. The final 60 feet of this tangent track contains a friction brake for slowing the cars and is covered by a roof measuring 10 feet in width, the purpose of the roof being to keep the brakes dry. The track makes a left turn as it enters the station.

The station consists of an open pavilion at the front of the ride. The rectangular pavilion, measuring 70 feet wide by 37 feet deep, is constructed of wood and is covered by a shingled, steeply pitched hip roof. The front of the station has a low wood platform with benches where passengers can gather and wait for the cars. Behind this low platform is a raised boarding platform reached by steps. The track is behind the boarding platform. Another low platform area behind the track provides space for the ride's operators. A hand-operated friction brake stops the cars as they enter the station.

² Originally the wheels rode directly on wood. The bottom rails were made of sugar maple. The friction boards, originally long leaf pine, were mostly replaced with plywood during the 1950s and 60s as part of routine wood replacement. The steel was added in high stress areas to eliminate wear and tear on the wood and the need for frequent wood replacement. The steel on the bottom rails was added in the dips prior to 1953. The steel was added to the friction boards in the 1950s and 60s.

³ The uprights originally rested on wooden sills placed on the ground. Beginning in the early 1980s, the sills were replaced by concrete slabs for better durability and to eliminate contact between the wooden uprights and the ground. ←

⁴ The intermediates were originally wood. Many of these were replaced with steel in the late 1960s for greater durability and ease of construction as the wooden intermediates used mortise and tenon construction.

LEAP-THE-DIPS**Page 6**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Extending from the rear of the station at an acute angle is a wooden shed measuring 60 feet long by 21 feet wide. This shed is used for the storage of the cars. The shed consists of a series of adjacent stalls each measuring 9 feet wide by 21 feet deep and a transfer track running the length of the shed past the open fronts of the stalls. A small, movable platform containing a short section of track is mounted on the transfer track and can be pushed between the main track in the station and any of the individual stalls.

A small wooden shed measuring 18 feet by 19 feet is located near the base of the lift hill of the main structure and houses the motor which drives the lift hill chain hoist.

The sleigh-like cars are constructed of wood and contain two upholstered seats each wide enough to seat two adults. Each car rests on four non-flanged steel wheels mounted beneath the cars. Two non-flanged steel wheels are mounted vertically on each side of the car for steering the car on the course.

With the side friction figure eight coaster having been obsolete since the beginning^{of} the 1920s, Leap-the-Dips operated for more than six decades during which changes to the economics and availability of labor and materials occurred. As operating machines, wooden roller coasters need frequent maintenance and replacement of materials. Most of the modifications to Leap-the-Dips were made in response to normal maintenance requirements and the changing character of labor and material costs and availability. The noted changes to the small dips are not considered significant. Photos of other figure eights from the period before 1920 indicate small variations in the profile of the final track run including two small dips on some rides. Of the changes in materials, only the addition of steel on the running rails had any effect on the ride operation by reducing frictional losses which resulted in faster running cars. Current plans for restoration of the ride call for use of wooden intermediates^{ties} and no steel on the running rails. ^{the} ←

Aside from changes related primarily to the track as noted, most of Leap-the-Dips is as originally constructed. The station pavilion, storage shed, and cars are original. None of the noted changes alter the essential character of the side-friction figure eight style of coaster of which Leap-the-Dips is the only remaining example. These essential characteristics, which were common to all figure eights, consist of the figure eight plan and profile and the side friction track system.

LEAP-THE-DIPS

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

8. STATEMENT OF SIGNIFICANCE

Certifying official has considered the significance of this property in relation to other properties:
Nationally: X Statewide: Locally:

Applicable National Register Criteria: A X B ~~X~~ C X D

Criteria Considerations (Exceptions): A B C D E F G

NHL Criteria: 4

NHL Theme [1987]: ~~XXXIV.~~ Recreation

B. Spectator Pastimes

2. Roller Coasters

NHL Theme [1994]:

II: 4 Creating Social Institutions and Movements: Recreational Activities
III: 5 Expressing Cultural Values: Architecture

Areas of Significance:

Entertainment
Recreation
Engineering

probably not

why 1945? (other than 1945 side)

Period(s) of Significance: 1902-1945 1920

Significant Dates: 1902

Significant Person(s): N/A

Cultural Affiliation: N/A

Architect/Builder: Edward Joy Morris (1860-1929)

LEAP-THE-DIPS**Page 8**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

State Significance of Property, and Justify Criteria, Criteria Considerations, and Areas and Periods of Significance Noted Above.

Leap-the-Dips is the last known example of a Side-Friction Figure Eight roller coaster. Side-Friction Figure Eight roller coasters were once common in amusement parks across North America as well as in parks in other parts of the world. Amusement parks first appeared in the latter half of the nineteenth century, and quickly became a common and significant form of popular culture and recreation. The development of the roller coaster occurred in parallel with the development of the amusement park and was a signature attraction at nearly all parks. The Side-Friction Figure Eight type of coaster represented an important stage in the technological evolution of the roller coaster.

The early period of the roller coaster, from the appearance of the first commercial coaster at Coney Island in 1884 through the World War I era, was dominated by two technologies: Scenic Railways and Side-Frictions.

Scenic Railways were essentially miniature railways with flanged-wheeled cars running on narrow gauge tracks. Most Scenic Railways had brakemen riding the cars to control the speed of the trains, especially on curves. Many of the rides were constructed fully or partially within buildings, artificial mountains, and other structures housing elaborate scenery, giving rise to the generic term "Scenic Railway".

Side-Friction coasters employed cars with two sets of non-flanged wheels. One set supported the weight of the cars. The other set, called friction wheels, were mounted vertically on the sides of the cars and ran against sideboards mounted on each side of the track, steering the cars on their course. The arrangement gave the appearance of the cars running in a shallow trough. By eliminating concerns of derailments and overturning, Side-Frictions could operate without brakemen and could run at higher speeds, especially on curves.

There were two general types of Side-Frictions: Figure Eights and Non-Figure Eights.

The Figure Eight consisted of a gradually descending profile in a multi-layered figure eight plan with the track crossing under itself in the middle several times during the course of the descent. The manufacturer used the term "Toboggan Slide" as a generic name for these rides, but many parks applied their own name. The Figure Eight was very popular and became a standard fixture in parks across the country and in many other parts of the world during the first two decades of the twentieth century.

The Figure Eight was patented by Edward Joy Morris in 1894. Born in 1860 in Philadelphia, Morris was an early builder and operator of both roller coasters and carousels. In 1895, following his patent for a Figure Eight Toboggan Slide, Morris received a patent for an "Inclined Railway and Water Tobogganing Apparatus", an early chutes ride in which boats descended down an incline to a body of water. Morris was the designer and builder of a chutes and a toboggan at Willow Grove Park which opened near Philadelphia in 1896.

LEAP-THE-DIPS**Page 9**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Morris was sued for his chutes device by a Mr. Paul Boyton who had erected a similar chutes ride at Coney Island. The lawsuit was dismissed by a circuit court in 1897, and Morris began installing additional chutes as well as toboggan slides (Figure Eights).

Morris's office was located at 902 Walnut St. in Philadelphia, and the factory was located at 1416-20 Callowhill Street in Philadelphia. The factory was later moved to 23rd and Ludlow Streets in Philadelphia. Additional offices were opened in Des Moines, Iowa and Leavenworth, Kansas. He also maintained an office in North Beach, Queens, New York, a resort where Morris owned land and a Figure Eight. In 1896, Morris's three brothers joined him as salesmen of the chute patent franchise. The name of the firm was the Morris Chute Company. ←

The Morris Chute Company also began building carousels with the first carousel delivered in 1899 for Chestnut Hill Park in Philadelphia.

By late 1903, when he sold the manufacturing side of his business, Morris had built roller coasters and carousels that he sold, leased, or operated as a concessionaire in numerous parks. A 1904 advertisement for the E. Joy Morris Co. listed 18 parks with the company's Figure Eights and/or carousels in operation by that year including six in Pennsylvania. Lakemont Park is included in the list.¹ Research by Richard Munch has identified a least 250 Figures Eights erected in North America.² Additional Figure Eights are known to have been built outside of North America. Many of these rides are listed as having been built by others. It is not known how many of these rides were built directly by Morris, or by others under contract or license, as opposed to those built as near copies with minor changes to avoid patent infringement. But the many postcards from that era give rise to the belief that most, if not all, of the Figure Eights were built to an identical or nearly identical design. Even the station buildings pictured in many of the postcards have the same architectural features. Thus, unlike most wooden roller coasters which are unique designs customized for each location, the Side-Friction Figure Eights were built to a standard configuration.

In 1903, Morris sold the manufacturing side of his business to two businessmen who founded the Philadelphia Toboggan Company which went on to become a major manufacturer of roller coasters and carousels. Morris continued to operate carousels, Figure Eights, and other rides as a concessionaire in over a dozen parks until 1920. He died in 1929.

Non-Figure Eights were built to a variety of custom plans and profiles, and often featured more ups and downs rather than a continuously descending profile.

¹ The advertisement includes a photograph of a Figure Eight. Although the background suggests that the photograph was not taken at Lakemont Park, the coaster appears identical to Leap-the-Dips.

² Munch, Richard. *The 1991 Roller Coaster Directory*. The directory lists over 1,750 roller coasters known to have operated in North America between 1884 and 1990. More than 250 are identified as Figure Eights. Although the list is extensive and is the result of substantial research, it cannot be considered all-inclusive. It is possible that additional Figure Eights existed that could not be identified.

LEAP-THE-DIPS**Page 10**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

In the years following World War I, the Scenic Railways and the Side-Friction coasters, both Figure Eights and Non-Figure Eights, were rapidly supplanted by coasters employing the newly-developed under-friction system with safety wheels which made possible the far more intensely thrilling designs typical of the 1920s. This third type of technology placed the friction or guide wheels below the car to run against the sides of deep rails constructed of a stack of several layers of wood, with the boards in some layers wider than others. It also featured an additional set of safety wheels which ride beneath a ledge or lip formed by the wider boards in the stack, thus locking the trains to the track. The under-friction/safety wheel system is the standard technology used for wood coasters to this day.

It is not known when the last Side-Friction Figure Eights were constructed, but by the beginning of the 1920s these rides had fallen out of favor, at least in the United States. It is believed that some Scenic Railways were built in other parts of the world as late as the 1950s.

While a few Scenic Railways are still in operation in other parts of the world, the last Scenic Railway in North America was demolished following the closing of Willow Grove Park near Philadelphia in the late 1970s.

By 1990, there were only two stationary Side-Friction coasters known to exist in the world.³ One was a Non-Figure Eight type, the Giant Coaster, which was constructed at Crystal Beach, Ontario, in 1916. It operated through the 1989 season after which the park closed permanently. The ride stood idle for two years and was subsequently demolished in 1991.⁴

The other surviving Side-Friction is Leap-the-Dips, a Figure Eight built at Lakemont Park in Altoona, Pennsylvania in 1902. It operated through the 1985 season after which the park changed ownership and was substantially re-developed. The entire ride is fully intact. The Leap The Dips Preservation Foundation, Inc. has been founded for the purpose of raising funds to restore and operate it. The Foundation has leased the ride from Blair County (PA) and has full responsibility for it. Fund raising is currently underway.

³ Portable side friction coasters, as well as portable models of other types of wood coasters, were used in Europe, touring fairs and carnivals. One portable side friction coaster is known to still exist in Europe, although it is not believed to currently be in use. It is not a figure Eight like Leap-the-Dips, but intersperses figure eights and tangents in its track plan and features more hills in its profile.

⁴ The trains from this coaster survive in the hands of collectors. One car is in the collection of the American Coaster Enthusiasts.

LEAP-THE-DIPS

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

Leap-the-Dips is the only known remaining Side-Friction Figure Eight coaster in North America.⁵ It is believed to be the last of its kind in the world. It is also the oldest known standing roller coaster in North America and is believed to be the oldest standing roller coaster in the world. During the first two decades of this century, large numbers of substantially identical rides were in operation in parks across America as well as in other parts of the world. Leap-the-Dips is the sole surviving representative of a very important period in the history of the roller coaster and the amusement park.

new footnote

FN: Add this to the end of FN #5

⁶ Leap-the-Dips was not included in ^{an earlier} ~~the 1986~~ "Recreation in the United States" NHL theme study because the author of that study, ^{under study} ~~after consulting with the leading authority on roller coasters and others,~~ concluded that no Side-Friction roller coasters survived in the United States. Otherwise, this important and extremely rare property would have been nominated at that time. Interview with James H. Charleton, former NHL Survey Historian, NPS, November 1995.

⁵ The American Coaster Enthusiasts publishes an annual census of all the wooden as well as major steel roller coasters standing in North America. Leap-the-Dips is the only side-friction and only figure eight coaster listed in the census. The census is compiled from the collective knowledge and research of the organization's members. The American Coaster Enthusiasts is the world's largest organization of amusement park and roller coaster enthusiasts with more than 4000 members in the United States and 15 foreign countries including Canada, England, Germany and Australia. The organization includes many members who have done substantial historical research and who own extensive collections of amusement park and roller coaster historical information and memorabilia. Some of its members have traveled extensively to ride roller coasters throughout the world. Although coasters outside of North America have not yet been documented as extensively as those in North America, it is currently believed that the locations of all standing wooden roller coasters in the world are known and that Leap-the-Dips is the only remaining roller coaster of its kind in the entire world.

LEAP-THE-DIPS

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

9. MAJOR BIBLIOGRAPHICAL REFERENCES

Fried, Frederick. "E. Joy Morris and the Evolution of the Philadelphia Toboggan Company." *Merry-Go-Round Up*, 16:1 (Spring 1989), pp. 7-9, 31, 32, 34.

Halterman, Tom E. "Leap-the-Dips," National Register of Historic Places Registration Form, October 16, 1990.

Lakemont Park. Altoona: Critic Press, circa 1902. (Illustrated booklet located with Mary Ellen Leidy, 411 4th Street, Lakemont, Altoona, Pennsylvania 16602.)

Manns, William. "E. Joy Morris, Philadelphia's Forgotten Carousel Builder." *The Carousel News & Trader*, March 1989.

Morris, E. Joy. "Toboggan-Slide." Washington: United States Patent Office. Letters Patent No. 522025, June 26, 1894.

Munch, Richard. *The 1991 Roller Coaster Directory*. Fords: Coaster Posters, 1991.

Pine, William, editor. *A History of Lakemont Park*. Altoona: Lakemont Park Historical Museum, Inc., 1990.

Roesch, Richard R. Former Manager of Lakemont Park: Telephone interview on September 29, 1992; August 12, 1993; and September 17, 1994.

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
- Other (Specify Repository): *Author's Files*

LEAP-THE-DIPS**Page 13**

United States Department of the Interior, National Park Service

National Register of Historic Places Registration Form

10. GEOGRAPHICAL DATA

Acreage of Property: Less than one (1) acre.

UTM References: Zone Easting Northing
A 17 720710 4483060

Verbal Boundary Description:

The roller coaster and its component parts fit within a rectangular area measuring approximately 235 feet by 85 feet. The center of the figure eight (not the center of the rectangle) is located approximately 775 feet east and 190 feet north of the intersection of the centerlines of new US Route 220 and Logan Boulevard. (See attached scale map.)

Boundary Justification:

The boundary is a rectangular area drawn to ^{directly} immediately encompass the roller coaster and its component parts. *that have historically been known as Leap-the-Dips*

11. FORM PREPARED BYName/Title: Tom E. Halterman
American Coaster Enthusiasts
2320 Green Street
Philadelphia, Pennsylvania 19130

Telephone: 215/922-8080

Date: April 7, 1995

November 1

Z

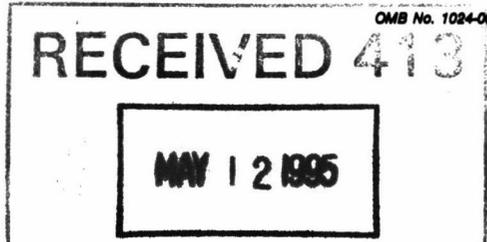
NATIONAL HISTORIC LANDMARKS SURVEY

National Park Service/Washington Office

[October 24, 1995]

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form



INTERAGENCY RESOURCES DIVISION

NATIONAL PARK SERVICE

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Leap-The-Dips
other names/site number N/A

2. Location

street & number 700 Park Avenue not for publication
city, town Altoona vicinity
state Pennsylvania code PA county Blair code 013 zip code 16602

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	Contributing	Noncontributing
<input checked="" type="checkbox"/> public-local	<input type="checkbox"/> district	_____	_____ buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site	_____	_____ sites
<input type="checkbox"/> public-Federal	<input checked="" type="checkbox"/> structure	1	_____ structures
	<input type="checkbox"/> object	_____	_____ objects
		1	0 Total

Name of related multiple property listing: N/A
Number of contributing resources previously listed in the National Register 1

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this 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 meets does not meet the National Register criteria. See continuation sheet.
DR. BRENT D. GLASS *Brent D. Glass* 5/3/95
Signature of certifying official
PA HISTORICAL & MUSEUM COMMISSION
State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.
Signature of commenting or other official _____ Date _____
State or Federal agency and bureau _____

5. 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:) _____
Signature of the Keeper _____ Date of Action _____

6. Function or Use

Historic Functions (enter categories from instructions)

Recreation and Culture/Fair
Other: Roller Coaster
Other: Amusement Ride

Current Functions (enter categories from instructions)

Work In Progress

7. Description

Architectural Classification (enter categories from instructions)

Other: Roller Coaster

Materials (enter categories from instructions)

foundation N/A
walls N/A
roof N/A
other Wood

Describe present and historic physical appearance.

Leap-the-Dips is a Side-Friction Figure Eight roller coaster constructed in 1902 by E. Joy Morris of Philadelphia, Pa. The roller coaster is located in Lakemont Park in Altoona, Pennsylvania. Lakemont Park was originally developed by the Altoona and Logan Valley Electric Railway Company in the 1890's. The roller coaster and its components occupy roughly a rectangular area measuring 84 feet by 229 feet. The resource consists of the figure eight course of track mounted on a wood trestle support structure, a station pavilion, a small storage shed for the coaster cars, a small shed housing the chain motor, and the individual 2-seat cars.

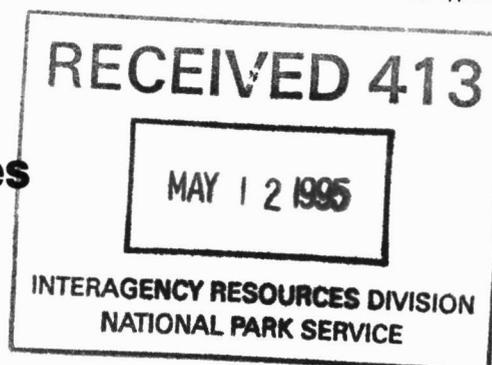
The site of the ride is currently flat. Early photographs of the ride show a wide swale beneath the ride which was apparently filled in at some point and the lengths of the trestle uprights shortened accordingly. Early photographs also indicate that a section of tangent track leading from the final curve to the station originally contained one small dip which was later replaced by two small dips. These two differences are clearly evident in the attached copy of a photograph of the coaster found in the illustrated booklet, Lakemont Park (see bibliography). The date of the photograph and the date of publication of the booklet are not known; however, the booklet contains a listing of railroad excursion fares to the park for the 1902 season, and this listing is referenced in the text. It is presumed that the booklet was published in 1902 or shortly thereafter. In addition, the lowest dip in the middle of the figure eight was deepened slightly to extend it all the way to the ground. These changes have been confirmed by Mr. Richard Roesch.¹ There are no known records as to when or why these changes were made; most information has been handed down by word of mouth, and those directly involved are no longer living.

Except for certain minor changes to construction materials as noted below, all other primary characteristics of the ride are essentially unchanged from the original construction. Leap-the-Dips is an excellent example of the once common Side-Friction Figure Eight roller coaster retaining all of the significant characteristics and details typical of the hundreds of such rides constructed during the first two decades of the twentieth century.

¹ Mr. Richard Roesch came to Lakemont Park in the 1940's, and became a manager. When he first came to the park he worked with those who had been with the park from the early years and had described the two changes in the profile.

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Leap-the-Dips, Blair County, PA

Section number 7 Page 1

The dominate feature of the resource is the figure eight course of track and the structure on which it is supported. The track's rails consist of a pair of flat longitudinal boards laid parallel to support the weight-bearing non-flanged wheels of the cars, and a pair of flat friction boards positioned vertically on each side of the track and which are contacted by separate non-flanged guide wheels mounted vertically on the sides of the cars. Both pairs of boards have thin strips of steel mounted on their surface to provide a hard wearing low-friction surface for the cars' wheels.² The rails are mounted on a trestle support structure. Each bent of the trestle structure consists of a pair of upright timbers connected by one or more cross ledger boards which support the rails.³ Between the bents additional intermediate ties maintain the gauge of the track and provide additional support for the friction boards.⁴ The bents are connected to each other by diagonal wood bracing.

Leaving the station, the track makes a left turn and descends a short section of tangent track. It then climbs an inclined lift hill to a height of 41 feet which is the highest point on the course of track. A two-stage electrically driven chain hoist pulls the cars to this high point. Originally made of malleable iron, the chain and associated gears are now made of steel. The change from malleable iron to steel occurred in the early 1980's to satisfy insurance requirements. A series of hinged wooden paddles mounted horizontally on each side of the track on the lift hill act as ratchets to prevent the cars from slipping backward down the hill in the event that the chain should break or fail. At the summit of the lift hill the track passes beneath a small peaked, steeple-like roof which extends the total height of the structure to 54 feet.

²Originally the wheels rode directly on wood. The bottom rails were made of sugar maple. The friction boards, originally long leaf pine, were mostly replaced with plywood during the 1950's and 60's as part of routine wood replacement. The steel was added in high stress areas to eliminate wear and tear on the wood and the need for frequent wood replacement. The steel on the bottom rails was added in the dips prior to 1953. The steel was added to the friction boards in the 1950's and 60's.

³The uprights originally rested on wooden sills placed on the ground. Beginning in the early 1980's the sills were replaced by concrete slabs for better durability and to eliminate contact between the wooden uprights and the ground.

⁴The intermediates were originally wood. Many of these were replaced with steel in the late 1960's for greater durability and ease of construction as the wooden intermediates used mortise and tenon construction.

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Leap-the-Dips, Blair County, PA

Section number 7 Page 2

From the summit the track dips slightly and then follows a gradually descending profile through a series of large radius curves arranged in a series of two and one-half figure eights forming a multi-layered course with the track occupying different levels within the same structure. The width of the figure eight structure measures 84 feet at its widest, and 192 feet from front to back. Where the track passes under itself at the crossings of the figure eights, the profile is broken by a slight dip in the track. After the last curve the track returns to the station over a tangent section containing two small dips. The final 60 feet of this tangent track contains a friction brake for slowing the cars and is covered by a roof measuring 10 feet in width, the purpose of the roof being to keep the brakes dry. The track makes a left turn as it enters the station.

The station consists of an open pavilion at the front of the ride. The rectangular pavilion, measuring 70 feet wide by 37 feet deep, is constructed of wood and is covered by a shingled, steeply pitched hip roof. The front of the station has a low wood platform with benches where passengers can gather and wait for the cars. Behind this low platform is a raised boarding platform reached by steps. The track is behind the boarding platform. Another low platform area behind the track provides space for the ride's operators. A hand-operated friction brake stops the cars as they enter the station.

Extending from the rear of the station at an acute angle is a wooden shed measuring 60 feet long by 21 feet wide. This shed is used for the storage of the cars. The shed consists of a series of adjacent stalls each measuring 9 feet wide by 21 feet deep and a transfer track running the length of the shed past the open fronts of the stalls. A small, movable platform containing a short section of track is mounted on the transfer track and can be pushed between the main track in the station and any of the individual stalls.

A small wooden shed measuring 18 feet by 19 feet is located near the base of the lift hill of the main structure and houses the motor which drives the lift hill chain hoist.

The sleigh-like cars are constructed of wood and contain two upholstered seats each wide enough to seat two adults. Each car rests on four non-flanged steel wheels mounted beneath the cars. Two non-flanged steel wheels are mounted vertically on each side of the car for steering the car on the course.

With the side friction figure eight coaster having been obsolete since the beginning of the 1920's, Leap-the-Dips operated for more than six decades during which changes to the economics and availability of labor and materials occurred. As

RESOURCE BOND

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Leap-the-Dips, Blair County, PA

Section number 7 Page 3

operating machines, wooden roller coasters need frequent maintenance and replacement of materials. Most of the modifications to Leap-the-Dips were made in response to normal maintenance requirements and the changing character of labor and material costs and availability. The noted changes to the small dips are not considered significant. Photos of other figure eights from the period before 1920 indicate small variations in the profile of the final track run including two small dips on some rides. Of the changes in materials, only the addition of steel on the running rails had any effect on the ride operation by reducing frictional losses which resulted in faster running cars. Current plans for restoration of the ride call for use of wooden intermediates and no steel on the running rails. None of the changes alter the essential character of the side-friction figure eight style of coaster of which Leap-the-Dips is the only remaining example. These essential characteristics, which were common to all figure eights, consist of the figure eight plan and profile and the side friction track system.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)

Entertainment/Recreation
Engineering
NHL Theme XXXIV - Recreation/
Spectator Pastimes/Roller Coasters

Period of Significance

1902-1945

Significant Dates

1902

Cultural Affiliation

N/A

Significant Person

N/A

Architect/Builder

Morris, Edward Joy

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

Leap-the-Dips is the last known example of a Side-Friction Figure Eight roller coaster. Side-Friction Figure Eight roller coasters were once common in amusement parks across North America as well as in parks in other parts of the world. Amusement parks first appeared in the latter half of the nineteenth century, and quickly became a common and significant form of popular culture and recreation. The development of the roller coaster occurred in parallel with the development of the amusement park and was a signature attraction at nearly all parks. The Side-Friction Figure Eight type of coaster represented an important stage in the technological evolution of the roller coaster.

The early period of the roller coaster, from the appearance of the first commercial coaster at Coney Island in 1884 through the World War I era, was dominated by two technologies: Scenic Railways and Side-Frictions.

Scenic Railways were essentially miniature railways with flanged-wheeled cars running on narrow gauge tracks. Most Scenic Railways had brakemen riding the cars to control the speed of the trains, especially on curves. Many of the rides were constructed fully or partially within buildings, artificial mountains, and other structures housing elaborate scenery, giving rise to the generic term "Scenic Railway".

Side-Friction coasters employed cars with two sets of non-flanged wheels. One set supported the weight of the cars. The other set, called friction wheels, were mounted vertically on the sides of the cars and ran against sideboards mounted on each side of the track, steering the cars on their course. The arrangement gave the appearance of the cars running in a shallow trough. By eliminating concerns of derailments and overturning, Side-Frictions could operate without brakemen and could run at higher speeds, especially on curves.

There were two general types of Side-Frictions: Figure Eights and Non-Figure Eights.

See continuation sheet

9. Major Bibliographical References

Fried, Frederick. "E. Joy Morris and the Evolution of the Philadelphia Toboggan Company". Merry-Go-Round Up, 16:1 (Spring 1989), 7-19, 31, 32, 34.

Halterman, Tom E. "Leap-the-Dips", National Register of Historic Places Registration Form, October 16, 1990.

Lakemont Park. Altoona: Critic Press, circa 1902.
(Illustrated booklet located with Mary Ellen Leidy, 411 4th Street, Lakemont, Altoona, PA. 16602)

Manns, William. "E. Joy Morris, Philadelphia's Forgotten Carousel Builder". The Carousel News & Trader, March 1989.

Munch, Richard. The 1991 Roller Coaster Directory. Fords: Coaster Posters, 1991.

See continuation sheet

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
 - Other
- Specify repository:** _____

10. Geographical Data

Acreeage of property Less than one acre

UTM References

A 17 720710 4483060
 Zone Easting Northing

C _____

B _____
 Zone Easting Northing

D _____

See continuation sheet

Verbal Boundary Description

The roller coaster and its component parts fit within a rectangular area measuring approximately 235 feet by 85 feet. The center of the figure eight (not the center of the rectangle) is located approximately 775 feet east and 190 feet north of the intersection of the centerlines of new US Route 220 and Logan Boulevard.

See continuation sheet

Boundary Justification

The boundary is a rectangular area drawn to immediately encompass the roller coaster and its component parts.

See continuation sheet

11. Form Prepared By

name/title Tom E. Halterman
 organization American Coaster Enthusiasts date April 7, 1995
 street & number 2320 Green Street telephone (215) 922-8080
 city or town Philadelphia state PA zip code 19130

United States Department of the Interior
National Park Service

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Leap-the-Dips, Blair County, PA

Section number 8 Page 1

The Figure Eight consisted of a gradually descending profile in a multi-layered figure eight plan with the track crossing under itself in the middle several times during the course of the descent. The manufacturer used the term "Toboggan Slide" as a generic name for these rides, but many parks applied their own name. The Figure Eight was very popular, and became a standard fixture in parks across the country and in many other parts of the world during the first two decades of the twentieth century.

The Figure Eight was patented by Edward Joy Morris in 1894. Born in 1860 in Philadelphia, Morris was an early builder and operator of both roller coasters and carrousel. In 1895, following his patent for a Figure Eight Toboggan Slide, Morris received a patent for an "Inclined Railway and Water Tobogganing Apparatus", an early chutes ride in which boats descended down an incline to a body of water. Morris was the designer and builder of a chutes and a toboggan at Willow Grove Park which opened near Philadelphia in 1896.

Morris was sued for his chutes device by a Mr. Paul Boyton who had erected a similar chutes ride at Coney Island. The lawsuit was dismissed by a circuit court in 1897, and Morris began installing additional chutes as well as toboggan slides (Figure Eights).

Morris's office was located at 902 Walnut Street in Philadelphia, and the factory was located at 1416-20 Callowhill Street in Philadelphia. The factory was later moved to 23rd and Ludlow Streets in Philadelphia. Additional offices were opened in Des Moines, Iowa and Leavenworth, Kansas. He also maintained an office in North Beach, Queens, New York, a resort where Morris owned land and a Figure Eight. In 1896 Morris's three brothers joined him as salesmen of the chute patent franchise. The name of the firm was the Morris Chute Company.

The Morris Chute Company also began building carrousel with the first carrousel delivered in 1899 for Chestnut Hill Park in Philadelphia.

By late 1903, when he sold the manufacturing side of his business, Morris had built roller coasters and carrousel that he sold, leased, or operated as a concessionaire in numerous parks. A 1904 advertisement for the E. Joy Morris Co. listed 18 Figure Eights in operation by that year including six in Pennsylvania. Research by Richard Munch has identified at least 250 Figure Eights erected in North America.¹ Additional Figure Eights are known to have been built outside of North America. Many of these rides are listed as having been built by others. It is not

¹ Munch, Richard. The 1991 Roller Coaster Directory The directory lists over 1,750 roller coasters known to have operated in North America between 1884 and 1990. More than 250 are identified at Figure Eights. Although the list is extensive and is the result of substantial research, it cannot be considered all-inclusive. It is possible that additional Figure Eights existed that could not be identified.

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Leap-the-Dips, Blair County, PA

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known how many of these rides were built directly by Morris or by others under contract or license as opposed to those built as near copies with minor changes to avoid patent infringement. But the many postcards from that era give rise to the belief that most, if not all, of the Figure Eights were built to an identical or nearly identical design. Even the station buildings pictured in many of the postcards have the same architectural features. Thus, unlike most wooden roller coasters which are unique designs customized for each location, the Side-Friction Figure Eights were built to a standard configuration.

In 1903 Morris sold the manufacturing side of his business to two businessmen who founded the Philadelphia Toboggan Company which went on to become a major manufacturer of roller coasters and carrouseles. Morris continued to operate carrouseles, Figure Eights, and other rides as a concessionaire in over a dozen parks until 1920. He died in 1929.

Non-Figure Eights were built to a variety of custom plans and profiles, and often featured more ups and downs rather than a continuously descending profile.

In the years following World War I, the Scenic Railways and the Side-Friction coasters, both Figure Eights and Non-Figure Eights, were rapidly supplanted by coasters employing the newly-developed under-friction system and safety wheels which made possible the far more intensely thrilling designs typical of the 1920's. The under-friction/safety wheel system is the standard technology used for wood coasters to this day.

It is not known when the last Side-Friction Figure Eights were constructed, but by the beginning of the 1920's these rides had fallen out of favor, at least in the United States. It is believed that some Scenic Railways were built in other parts of the world as late as the 1950's.

While a few Scenic Railways are still in operation in other parts of the world, the last Scenic Railway in North America was demolished following the closing of Willow Grove Park near Philadelphia in the late 1970's.

By 1990 there were only two Side-Friction coasters known to exist in the world. One was a Non-Figure Eight type, the Giant Coaster, which was constructed at Crystal Beach, Ontario, in 1916. It operated through the 1989 season after which the park closed permanently. The ride stood idle for two years and was subsequently demolished in 1991.

The other surviving Side-Friction is Leap-the-Dips, a Figure Eight built at Lakemont Park in Altoona, Pennsylvania in 1902. It operated through the 1985 season after which the park changed ownership and was substantially re-developed. The entire ride is fully intact. The Leap-the-Dips Preservation Foundation, Inc. has been founded for the purpose of taking ownership of the ride and raising funds to restore and operate it. Current plans are to have the restoration completed for the 1996 season.

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Leap-the-Dips, Blair County, PA

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Leap-the-Dips is the only known remaining Side-Friction Figure Eight coaster in North America.² It is believed to be the last of its kind in the world. It is also the oldest known standing roller coaster in North America and is believed to be the oldest standing roller coaster in the world. During the first two decades of this century, large numbers of substantially identical rides were in operation in parks across America as well as in other parts of the world. Leap-the-Dips is the sole surviving representative of a very important period in the history of the roller coaster and the amusement park.

² The American Coaster Enthusiasts publishes an annual census of all the wooden as well as major steel roller coasters standing in North America. Leap-the-Dips is the only side-friction and only figure eight coaster listed in the census. The census is compiled from the collective knowledge and research of the organization's members. The American Coaster Enthusiasts is the world's largest organization of amusement park and roller coaster enthusiasts with more than 40000 members in the United States and 15 foreign countries including Canada, England, Germany and Australia. The organization includes many members who have done substantial historical research and who own extensive collections of amusement park and roller coaster historical information and memorabilia. Some of its members have traveled extensively to ride roller coasters throughout the world. Although coasters outside of North America have not yet been documented as extensively as those in North America, it is currently believed that the locations of all standing wooden roller coasters in the world are known and that Leap-the-Dips is the only remaining roller coaster of its kind in the entire world.

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Continuation Sheet**

Leap-the-Dips, Blair County, PA

Section number 9 Page 1

Morris, E. Joy. "Toboggan-Slide". Washington: United States Patent Office, Letters Patent No. 522025, June 26, 1894.

Pine, William, editor. A History of Lakemont Park. Altoona: Lakemont Park Historical Museum, Inc., 1990.

Roesch, Richard R., Former Manager of Lakemont Park: Telephone interviews on September 29, 1992, August 12, 1993, and September 17, 1994.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Leap-the-Dips, Blair County, PA

PHOTOGRAPHS
Section number _____ Page 1

- I. 1. Leap-the-Dips
2. Altoona, PA.
3. Tom Halterman
4. July 15, 1990
5. Tom Halterman, 2320 Green Street, Philadelphia, PA 19130
6. General view of the coaster from the front toward the rear of the ride showing the station pavilion, and the initial lift hill with its peak-roofed summit. One of the two-seat cars is visible on display in the forward center of the station.
7. Photo No. 1

(The first five items of information are the same for all of the following photographs)

- II. 6. View from the rear toward the front of the coaster showing the figure-eight layout of the track and its trestle supporting structure. The shed housing the chain motor is visible to the right of the tree. The two small dips on the final run toward the station are visible as the lowest tier of trackage to the right.
7. Photo No. 2
- III. 6. Close-up view of the side-friction type track showing one of the flat boards that support the weight-bearing wheels and the two vertical boards which steer the cars on their course.
7. Photo No. 3
- IV. 6. View looking up the initial lift hill with portions of the figure-eight layout and structure to the left. The two stage chain can be seen in the center of the track approaching the lift hill and on the lift hill. The horizontal boards on either side of the lift hill track are the paddles which prevent the cars from rolling backward. A portion of the car storage shed is visible in the left of the photo.
7. Photo No. 4
- V. 6. View from the station platform toward the rear of the car storage shed showing the cars in their stalls. A movable platform with a section of track rolls along the flat area in front of the stalls to move the cars between their stalls and the main track in the station.
7. Photo No. 5
- VI. 6. View of two cars sitting in the station. The high platform to the left is for boarding and alighting riders; the low area to the right is for the ride operators. A side-friction board on the visible side of the cars is not used in the station; the side friction wheels can be seen on this side of the cars.
7. Photo No. 6

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Leap-the-Dips, Blair County, PA

PHOTOGRAPHS

Section number _____ Page 2

- VII.
1. Leap-the-Dips
 2. Altoona, PA
 3. Unknown
 4. Circa 1902
 5. Unknown. Copy of photograph in booklet, Lakemont Park, see bibliography.
 6. View toward west side of coaster showing original swale beneath ride and single dip in lower track approaching station at right of photo.
 7. Photo No. 7
- VIII.
1. Leap-the-Dips
 2. Altoona, PA
 3. Ray J. Ueberroth
 4. November 16, 1994
 5. Ray J. Ueberroth, 1101 St. Paul St., Apt. #1101, Baltimore, MD 21202-2630
 6. View toward west side of coaster showing present level ground beneath ride and two dips in lower track approaching station at right of photo.
 7. Photo No. 8



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

P.O. BOX 37127

WASHINGTON, D.C. 20013-7127



M. Oll - name

APR 1 1991

H32(413)

To: Chief Historian, History Division

From: Chief of Registration, National Register of Historic Places

Re: Property for potential National Historic Landmark designation

Attached is a copy of a nomination for a property recently listed in the National Register with a recommended national level of significance. It is the opinion of the National Register that this property may have potential for National Historic Landmark designation. We are forwarding it to you for your review and consideration.

Cecelia Shue

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Interagency Resources Division
National Register of Historic Places

Evaluation of Potential National Significance

Property Name: Leap-the-Dips

State and County: PENNSYLVANIA, Blair

Applicable NHL Criteria and/or Exception: Criteria 1 and 4

Applicable NHL Theme, Subtheme, and Facet: Theme XVIII. Technology, Subtheme H. Construction and Theme XXXIV. Recreation, Subtheme B. Spectator Sports, Facet 2, Roller Coasters.

Explanation of Potential National Significance:

Leap-the-Dips is the oldest standing roller coaster in the world and the last surviving example of a Figure Eight Side Friction coaster.

The Leap-the-Dips Roller Coaster was constructed in 1902 in Lakemont Park, one of the many amusement parks constructed by urban rapid transit companies during the 1890s. It consisted of a wooden figure eight track mounted on a wood trestle. The track was formed by two sets of tracks forming what appeared to be a shallow trough; a pair of flat longitudinal treads supporting the unflanged load-bearing wheels, and a second set of flat boards positioned vertically on each side of the track which were contacted by separate non-flanged friction guide wheels mounted vertically on the sides of the cars. These friction boards acted to prevent possible derailment and permitted higher speeds. The highest point on the coaster is only 41 feet above the ground, but the figure eight configuration doubles back on itself, forming a multilayered interlocking track layout.

The Side Friction roller coaster was one of the two alternative forms dominating roller coaster technology following the introduction of the first commercial coaster at Coney Island in 1884 (the other was the slower and less exciting Scenic Railway). The Figure Eight form of the side friction roller coaster was patented by E. Joy Morris in 1894 and marketed by his company. Hundreds of these designs were constructed in the United States and Europe during the first two decades of the Twentieth Century, before they were replaced with still more exciting technology. The Leap-the-Dips is the sole surviving example.

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

NATIONAL
REGISTER

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Leap-The-Dips

other names/site number N/A

2. Location

street & number 700 Park Avenue

N/A not for publication

city, town Altoona

N/A vicinity

state Pennsylvania

code PA

county Blair

code 013

zip code 16502

3. Classification

Ownership of Property

- private
- public-local
- public-State
- public-Federal

Category of Property

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

Contributing	Noncontributing
<u>1</u>	<u>0</u>
<u>1</u>	<u>0</u>
Total	

Name of related multiple property listing:

N/A

Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this 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 meets does not meet the National Register criteria. See continuation sheet.

Dr. Brent D. Glass

Signature of certifying official

Date

Pennsylvania Historical & Museum Commission

State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official

Date

State or Federal agency and bureau

5. 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:)

Patrick Andrews

3/15/91

fer Signature of the Keeper

Date of Action

6. Function or Use**Historic Functions (enter categories from instructions)**

Recreation and Culture/Fair

Other: Roller Coaster

Current Functions (enter categories from instructions)

Work In Progress

7. Description**Architectural Classification**

(enter categories from instructions)

Other: Roller Coaster

Materials (enter categories from instructions)

foundation N/A

walls N/A

N/A

roof

other Wood

Describe present and historic physical appearance.

Leap-the-Dips is a Side-Friction Figure Eight roller coaster constructed in 1902 by E. Joy Morris of Philadelphia, Pa. The roller coaster is located in Lakemont Park in Altoona, Pennsylvania. Lakemont Park was originally developed by the Altoona and Logan Valley Electric Railway Company in the 1890's. The roller coaster and its components occupy roughly a rectangular area measuring 84 feet by 229 feet. The resource consists of the figure eight course of track mounted on a wood trestle support structure, a station pavilion, a small storage shed for the coaster cars, a small shed housing the chain motor, and the individual 2-seat cars. The site of the ride is currently flat. Early photographs of the ride show a wide swale beneath the ride which was apparently filled in at some point and the lengths of the trestle uprights shortened accordingly. Early photographs also indicate that a section of tangent track leading from the final curve to the station originally contained one small dip which was later replaced by two small dips. All other major aspects of the ride are essentially unchanged from the original construction. Leap-the-Dips is an excellent example of the once common Side-Friction Figure Eight roller coaster retaining all of the significant characteristics and details typical of the hundreds of such rides constructed during the first two decades of the twentieth century.

The dominate feature of the resource is the figure eight course of track and the structure on which it is supported. The track's rails consist of a pair of flat longitudinal boards laid parallel to support the weight-bearing non-flanged wheels of the cars, and a pair of flat friction boards positioned vertically on each side of the track and which are contacted by separate non-flanged guide wheels mounted vertically on the sides of the cars. Both pairs of boards have thin strips of steel mounted on their surface to provide a hard wearing low-friction surface for the cars' wheels. The rails are mounted on a trestle support structure. Each bent of the trestle structure consists of a pair of upright timbers connected by one or more cross ledger boards which support the rails. The bents are connected to each other by diagonal wood bracing.

Leaving the station, the track makes a left turn and descends a short section of tangent track. It then climbs an inclined lift hill to a height of 41 feet which is the highest point on the course of track. A two-stage electrically driven chain hoist pulls the cars to this high point. A series of hinged wooden paddles mounted horizontally on each side of the track on the lift hill act as ratchets to prevent the cars from slipping backward down the hill in the event that the chain should break or fail. At the summit of the lift hill the track passes beneath a small peaked, steeple-like roof which extends the total height of the structure to 54 feet.

**United States Department of the Interior
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Leap-the-Dips

Section number 7 Page 1

From the summit the track dips slightly and then follows a gradually descending profile through a series of large radius curves arranged in a series of two and one-half figure eights forming a multi-layered course with the track occupying different levels within the same structure. The width of the figure eight structure measures 84 feet at its widest, and 192 feet from front to back. Where the track passes under itself at the crossings of the figure eights, the profile is broken by a slight dip in the track. After the last curve the track returns to the station over a tangent section containing two small dips. The final 60 feet of this tangent track contains a friction brake for slowing the cars and is covered by a roof measuring 10 feet in width, the purpose of the roof being to keep the brakes dry. The track makes a left turn as it enters the station.

The station consists of an open pavilion at the front of the ride. The rectangular pavilion, measuring 70 feet wide by 37 feet deep, is constructed of wood and is covered by a shingled, steeply pitched hip roof. The front of the station has a low wood platform with benches where passengers can gather and wait for the cars. Behind this low platform is a raised boarding platform reached by steps. The track is behind the boarding platform. Another low platform area behind the track provides space for the ride's operators. A hand-operated friction brake stops the cars as they enter the station.

Extending from the rear of the station at an acute angle is a wooden shed measuring 60 feet long by 21 feet wide. This shed is used for the storage of the cars. The shed consists of a series of adjacent stalls each measuring 9 feet wide by 21 feet deep and a transfer track running the length of the shed past the open fronts of the stalls. A small, movable platform containing a short section of track is mounted on the transfer track and can be pushed between the main track in the station and any of the individual stalls.

A small wooden shed measuring 18 feet by 19 feet is located near the base of the lift hill of the main structure and houses the motor which drives the lift hill chain hoist.

The sleigh-like cars are constructed of wood and contain two upholstered seats each wide enough to seat two adults. Each car rests on four non-flanged steel wheels mounted beneath the cars. Two non-flanged steel wheels are mounted vertically on each side of the car for steering the car on the course.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)

Entertainment/Recreation
Engineering

Period of Significance

1900- 1940

Significant Dates

1902

Cultural Affiliation

N/A

Significant Person

N/A

Architect/Builder

Morris, Edward Joy

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

Leap-the-Dips is the last remaining example of a Side-Friction Figure Eight roller coaster. Side-Friction Figure Eight roller coasters were once common in amusement parks across North America as well as in parks in other parts of the world. Amusement parks first appeared in the latter half of the nineteenth century, and quickly became a common and significant form of popular culture and recreation. The development of the roller coaster occurred in parallel with the development of the amusement park and was a signature attraction at nearly all parks. The Side-Friction Figure Eight type of coaster represented an important stage in the technological evolution of the roller coaster.

The early period of the roller coaster, from the appearance of the first commercial coaster at Coney Island in 1884 through the World War I era, was dominated by two technologies: Scenic Railways and Side-Frictions.

Scenic Railways were essentially miniature railways with flanged-wheeled cars running on narrow gauge tracks. Most Scenic Railways had brakemen riding the cars to control the speed of the trains, especially on curves. Many of the rides were constructed fully or partially within buildings, artificial mountains, and other structures housing elaborate scenery, giving rise to the generic term "Scenic Railway".

Side-Friction coasters employed cars with two sets of non-flanged wheels. One set supported the weight of the cars. The other set, called friction wheels, were mounted vertically on the sides of the cars and ran against sideboards mounted on each side of the track, steering the cars on their course. The arrangement gave the appearance of the cars running in a shallow trough. By eliminating concerns of derailments and overturning, Side-Frictions could operate without brakemen and could run at higher speeds, especially on curves.

There were two general types of Side-Frictions: Figure Eights and Non-Figure Eights.

See continuation sheet

**United States Department of the Interior
National Park Service****National Register of Historic Places
Continuation Sheet**

Leap-the-Dips

Section number 8 Page 1

Patented by Edward Joy Morris in 1894, the Figure Eight consisted of a gradually descending profile in a multi-layered figure eight plan with the track crossing under itself in the middle several times during the course of the descent. The manufacturer used the term "Toboggan Slide" as a generic name for these rides, but many parks applied their own name. The Figure Eight was very popular, and became a standard fixture in parks across the country and in many other parts of the world during the first two decades of the twentieth century. Hundreds of Figure Eights were constructed by Edward Joy Morris's company located in Philadelphia, PA as well as by others using Morris's design under various agreements. A 1904 advertisement for the E. Joy Morris Co. listed 18 Figure Eights in operation by that year including six in Pennsylvania. The many postcards from that era give rise to the belief that most, if not all, of the Figure Eights were built to an identical design. Unlike most wooden roller coasters which are unique designs customized for each location, the Side-Friction Figure Eights were built to a standardized design.

Non-Figure Eights were built to a variety of custom plans and profiles, and often featured more ups and downs rather than a continuously descending profile.

In the years following World War I, the Scenic Railways and the Side-Friction coasters, both Figure Eights and Non-Figure Eights, were rapidly supplanted by coasters employing the newly-developed under-friction system and safety wheels which made possible the far more intensely thrilling designs typical of the 1920's. The under-friction/safety wheel system is the standard technology used for wood coasters to this day.

It is not known when the last Side-Friction Figure Eights were constructed, but by the beginning of the 1920's these rides had fallen out of favor, at least in the United States. It is believed that some Scenic Railways were built in other parts of the world as late as the 1950's.

While a few Scenic Railways are still in operation in other parts of the world, the last Scenic Railway in North America was demolished following the closing of Willow Grove Park near Philadelphia in the late 1970's.

In 1990 there are only two Side-Frictions existing in the world. One of these survivors is a Non-Figure Eight type, the Giant Coaster, which was constructed at Crystal Beach, Ontario, in 1916. It operated through the 1989 season after which the park closed permanently. The ride was sold at auction to a businessman who hoped to dismantle the ride, re-furbish its parts, and eventually re-erect it elsewhere. At this time it is still standing at Crystal Beach but faces an uncertain future.

The other surviving Side-Friction is Leap-the-Dips, a Figure Eight built at Lakemont Park in Altoona, Pennsylvania in 1902. It operated through the 1985 season after which the park changed ownership and was substantially re-developed. The entire ride is fully intact, and the current owner of the park plans to refurbish the ride for resumption of operation during the 1991 season.

Leap-the-Dips is believed to be the oldest standing roller coaster in the world, and is the last remaining example of the Side-Friction Figure Eight. During the first two decades of this century, large numbers of substantially identical rides were in operation in parks across America as well as in other parts of the world. Leap-the-Dips is the sole surviving representative of a very important period in the history of the roller coaster and the amusement park.

United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Leap-the-Dips

PHOTOGRAPHS

Section number _____ Page 1

- I. 1. Leap-the-Dips
2. Altoona, Pa.
3. Tom Halterman
4. July 15, 1990
5. Tom Halterman, 2320 Green St., Philadelphia, Pa. 19130
6. General view of the coaster from the front toward the rear of the ride showing the station pavilion, and the initial lift hill with its peak-roofed summit. One of the two-seat cars is visible on display in the forward center of the station.
7. Photo No. 1

(The first five items of information are the same for all of the following photographs)

- II. 6. View from the rear toward the front of the coaster showing the figure-eight layout of the track and its trestle supporting structure. The shed housing the chain motor is visible to the right of the tree. The two small dips on the final run toward the station are visible as the lowest tier of trackage to the right.
7. Photo No. 2
- III. 6. Close-up view of the side-friction type track showing one of the flat boards that support the weight-bearing wheels and the two vertical boards which steer the cars on their course.
7. Photo No. 3
- IV. 6. View looking up the initial lift hill with portions of the figure-eight layout and structure to the left. The two stage chain can be seen in the center of the track approaching the lift hill and on the lift hill. The horizontal boards on either side of the lift hill track are the paddles which prevent the cars from rolling backward. A portion of the car storage shed is visible in the left of the photo.
7. Photo No. 4
- V. 6. View from the station platform toward the rear of the car storage shed showing the cars in their stalls. A movable platform with a section of track rolls along the flat area in front of the stalls to move the cars between their stalls and the main track in the station.
7. Photo No. 5
- VI. 6. View of two cars sitting in the station. The high platform to the left is for boarding and alighting riders; the low area to the right is for the ride operators. A side-friction board on the visible side of the cars is not used in the station; the side friction wheels can be seen on this side of the cars.
7. Photo No. 6

9. Major Bibliographical References

Fried, Frederick. "E. Joy Morris and the Evolution of the Philadelphia Toboggan Company". Merry-Go-Round Up, 16:1 (Spring 1989), 7-19, 31, 32, 34.

Lakemont Park, Illustrated Booklet located with Mary Ellen Leidy, 411 4th St., Lakemont, Altoona, Pa. 16602

Morris, E. Joy. "Toboggan-Slide". Washington: United States Patent Office, Letters Patent No. 522025, June 26, 1894.

Pine, William, editor. A History of Lakemont Park. Altoona: Lakemont Park Historical Museum, Inc., 1990.

See continuation sheet

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
- Other

Specify repository: _____

10. Geographical Data

Acreeage of property Less than one acre

UTM References

A 17 720710 4483060
 Zone Easting Northing

C _____

B _____
 Zone Easting Northing

D _____

See continuation sheet

Verbal Boundary Description

The roller coaster and its component parts fit within a rectangular area measuring approximately 235 feet by 85 feet. The center of the figure eight (not the center of the rectangle) is located approximately 775 feet east and 190 feet north of the intersection of the centerlines of new US Route 220 and Logan Boulevard. (See scale map.)

See continuation sheet

Boundary Justification

The boundary is a rectangular area drawn to immediately encompass the roller coaster and its component parts. The nominated property is surrounded by noncontributing resources. To the northwest and west are 1970s or 1980s picnic pavilions. Due north is a children's roller coaster from c. 1950s or 1960s. A concrete block maintenance shed and garage, both c. 1970s, are to the east, as are two small amusement

See continuation sheet

11. Form Prepared By

name/title Tom E. Halterman

organization American Coaster Enthusiasts date October 16, 1990

street & number 2320 Green St. telephone (215) 922-8080

city or town Philadelphia state PA zip code 19130

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Leap the Dips

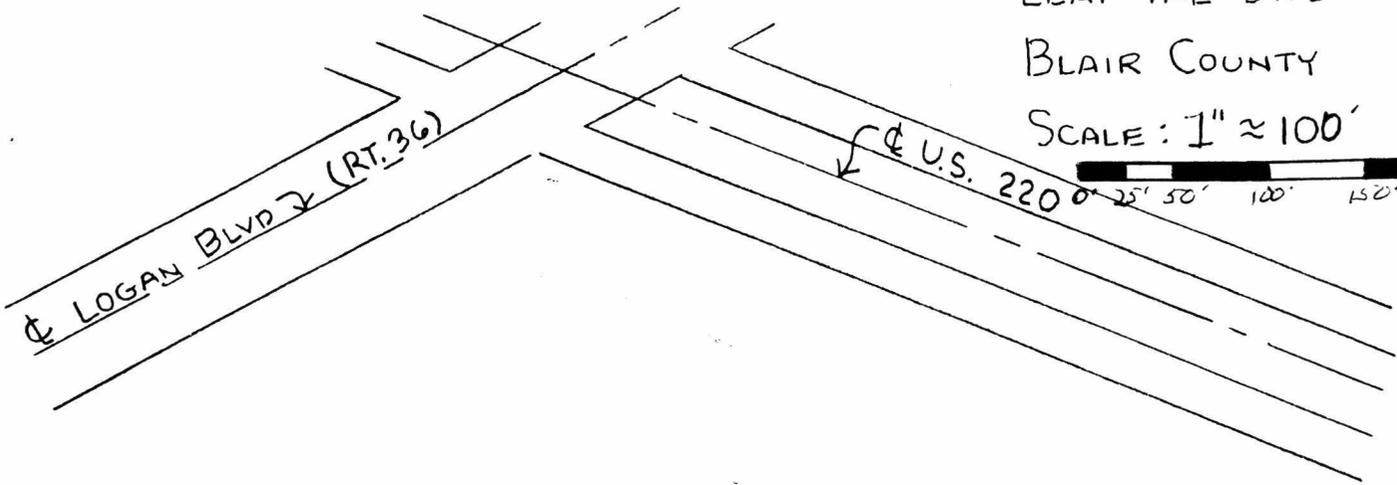
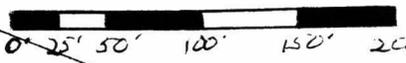
Section number 10 Page 1

rides moved to the park in the 1980s. To the southeast is a small shop c. 1980s, and to the south a 1960s era Bumper Cars ride.

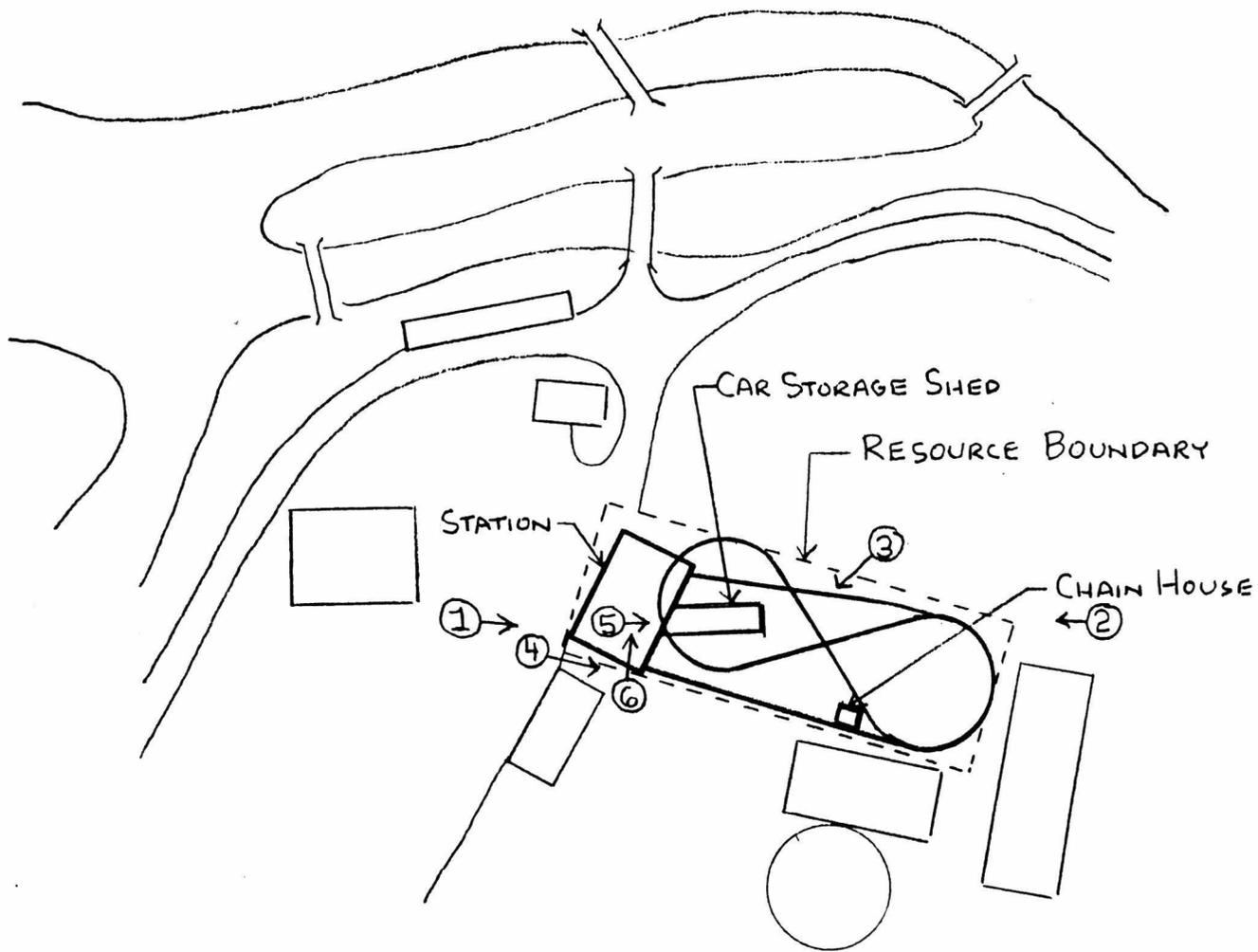
LEAP THE DIPS

BLAIR COUNTY

SCALE: 1" \approx 100'

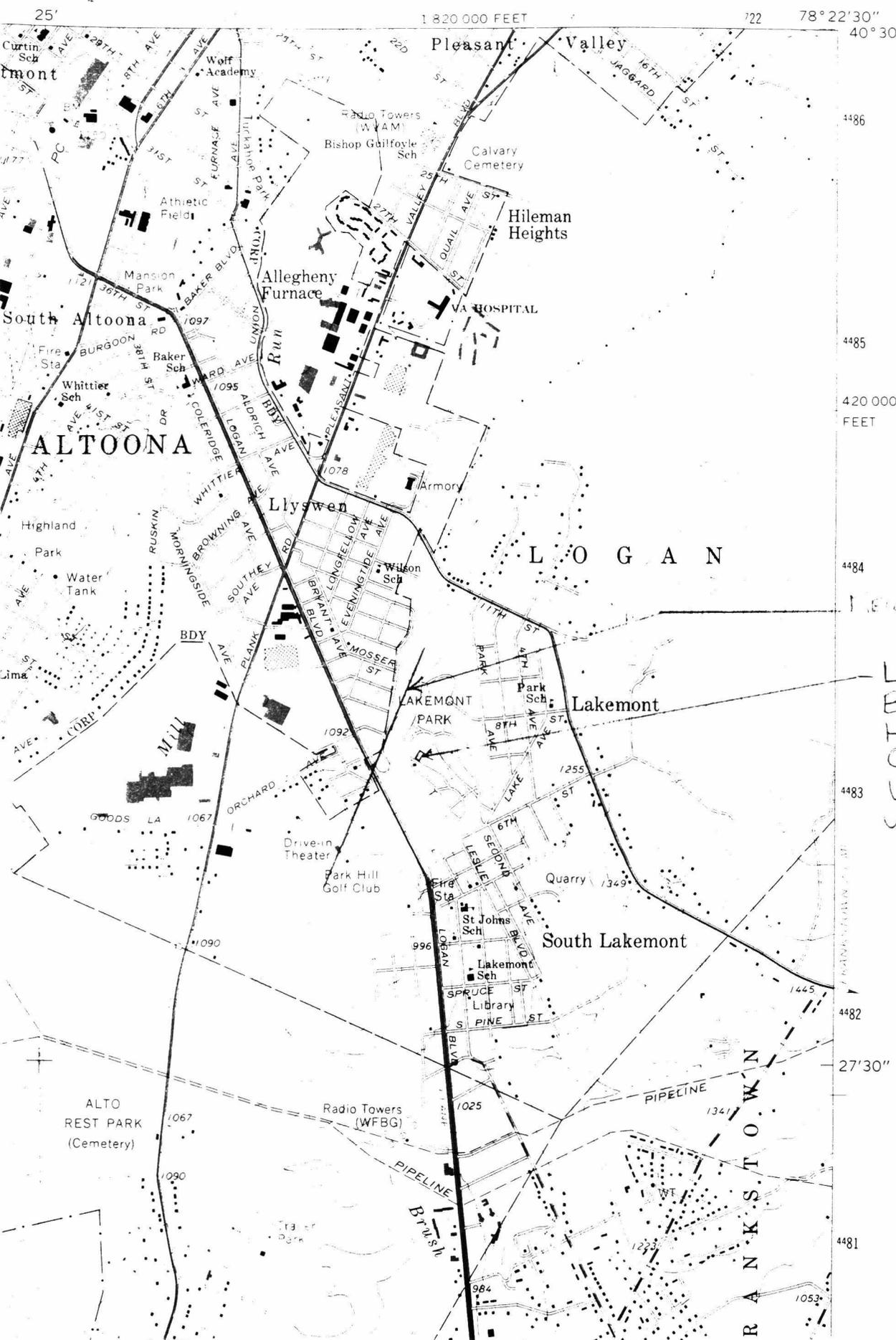


→ NORTH



HOLLIDAYSBURG QUADRANGLE
 PENNSYLVANIA—BLAIR CO
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5369 1/4 SE
 (BELLWOOD)



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 JTM REF 1100:
 E 720710
 N 4433060

↑ N

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number _____ Page _____

SUPPLEMENTARY LISTING RECORD

NRIS Reference Number: 91000229

Date Listed: 3/15/91

Leap-the-Dips
Property Name

Blair
County

PENNSYLVANIA
State

Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

for Patrick Andrus
Signature of the Keeper

3/19/91
Date of Action

===== Amended Items in Nomination:

Section No. 3. The nomination was amended to show 4 contributing structures (the roller coaster itself, the station pavilion, the chain motor shed, and the car storage shed) and 8 contributing objects (the 8 cars).

Section No. 8. The nomination was also amended to show Period of Significance of 1902-1940.

The amendments were confirmed by phone with Bill Sisson of the Pennsylvania SHPO (3/19/91).

DISTRIBUTION:

- National Register property file
- Nominating Authority (without nomination attachment)

To: Senior Historian *Henry 5/14/91*

From: Historian Charleton

Subject: Leap-The-Dips Side-Friction Roller Coaster, Lakemont Park, Altoona, Pa.,
National Historic Landmark Potential

*Thanks Jim. I've
sent the draft correspondence
forward for typing. JB*

The subject National Register form was submitted to me for review on April 2. There have been no status inquiries from the State or other parties. Again, we are in a position to encourage State and local efforts.

Leap-The-Dips, if its integrity is as "whole" as claimed in the nomination, is an extraordinary survivor and a strong candidate for designation. It is the counterpart of the two primitive carousels that were nominated along with the more elaborate second generation of them. For roller coasters, we have only second-generation and more elaborate examples.

Why wasn't this picked up in the first round on recreation? You will surely ask! My notes reveal the following:

- there is no evidence that the SHPO or even the American Coaster Enthusiasts representative with whom I met--in Pittsburgh yet-- were aware of its unique characteristics and survival.
- I concluded that "side-friction" coasters were an extinct species.
- Correspondence, almost exactly 5 years ago, for which I can find no OSC file, seems to reveal that locals who wrote to us were not aware of the importance of the coaster, as opposed to the park as a whole. (See attached copy of letter retrieved from one of my early lexitron disks.)

You will note in the attached letter proposed for dispatch to the SHPO that I suggest that the nomination be strengthened by adding sections on the E. Joy\Morris Co., a more elaborate discussion of integrity, and the source of the statement that the coaster is the only surviving example of its type in the United States.

Regarding integrity, as you will recall, perhaps the most nightmarish part of the recreation study was discerning whether carousels, coasters, etc., were largely intact or whether they were artificial combinations of parts cannibalized over time from other machines. For example, many coasters experienced fires and were partially or entirely rebuilt. It is, therefore, critically important to determine just how much of this coaster consists of rebuilt or replacement parts, and when the seemingly minor changes alluded to in the form were made.

Jim
5/9/91

A crossing of the ravine south and a short distance east of the burial hill is evident. It is too far west to match the crossing shown on the map drawn by Lt. Sidney A. Cloman, Acting Engineer Officer of the Division of the Missouri, but is in the vicinity of a crossing shown on a version of the same map published six years later in James Mooney's monograph on the Ghost Dance.⁹

In May 1903 some of the Indian survivors returned to the site to dedicate a monument commemorating the massacre.¹⁰ This granite shaft, more than six feet in height, was placed at the side of the mass grave. The monument is inscribed with the names of many of the fatalities and is a contributing object in this nomination due to its symbolic value.

Present Condition and Intrusions

The Wounded Knee National Historic Landmark has experienced several physical alterations and intrusions since December 29, 1890, however, the natural features have not been seriously compromised by alterations. Together with the historical documentation which exists on the site's history they possess considerable power to convey understanding on the movements of the principals during the course of the day. The three most important natural features which played a key role in the events of the significant date are: the burial hill, the dry ravine, and Wounded Knee Creek. They have the clearest and most persistent associations to the historical event. The burial hill was the location of the army's artillery during the engagement and, afterwards, of the mass grave. The dry ravine served as the major escape route for the Indians. Wounded Knee Creek gave the site its name and also served as a natural boundary for the temporary camps and for the day's events.

The physical integrity of the Wounded Knee National Historic Landmark compares favorable to cultural resources of similar activities, e.g. battlefields, councils, and campsites. The Cloman map can be overlaid on today's terrain and demonstrates the site's integrity. Maps drawn by eyewitnesses also attest to the site's integrity; they independently possess a high degree of internal consistency (see attached maps by McFarland, Allen, Wells, and Horn Cloud). Additionally, the historic photographs of the battlefield taken on January 3 and 4, 1891, can be easily matched to present-day topographical features. Based on these comparisons, Wounded Knee National Historic Landmark has retained



United States Department of the Interior



NATIONAL PARK SERVICE
P.O. BOX 37127
WASHINGTON, D.C. 20013-7127

IN REPLY REFER TO:
H34(418)

MAY 16 1991

Memorandum

To: Chief of Registration **Benjamin Levy**

From: Senior Historian, History Division

Subject: Leap-The-Dips Side-Friction Roller Coaster, Lakemont Park:
National Historic Landmark Potential

The subject National Register form is one of those you submitted to us for review, based on a fine evaluation by your staff. This case is a fine example of how the continuing work of the States can yield properties worthy of consideration for National Historic Landmark designation that might not otherwise come to our attention. Your staff is to be commended for referring this property to us.

The analysis in the statement of significance is persuasive. Leap-The-Dips, if its integrity is as "whole" as claimed in the nomination, is an extraordinary survivor and a strong candidate for designation. It is the counterpart of the two primitive carousels that were nominated along with the more elaborate and artistic examples of the second generation of them. Currently, for roller coasters, we have only second-generation examples.

We are suggesting that the nomination be strengthened by adding sections on the E. Joy Morris Co. and a more thorough discussion of integrity. The source for the statement that Leap-The-Dips is the only surviving side-friction roller coaster in the United States also needs to be specified.

The prime difficulty with the integrity of properties of this type is in discerning whether they are largely intact or whether they are artificial combinations of parts rebuilt or cannibalized over time from other machines. For example, many coasters experienced fires and were partially rebuilt. It is, therefore, critically important to determine just how much of this coaster consists of rebuilt or replacement parts, and when the seemingly minor changes alluded to in the form were made.

A word of explanation. This property was not picked up in the recreation theme study because the SHPO and even the American Coaster Enthusiasts representative who met with my staff were apparently unaware of its unique characteristics and survival. We had accordingly concluded that "side-friction" coasters were an extinct species. Even locals who wrote to us some 5 years ago about the park were apparently not aware of the importance of the coaster, as opposed to the park as a whole, and did not call it to our attention.

Because we do not anticipate being able to schedule staff revision of this study in the short term, we are writing to the SHPO to determine if his office or the volunteer who prepared the form will be willing to undertake the necessary revisions to finalize this study for presentation to the National Park System Advisory Board.

Please share this memorandum with Historian Andrus since it reflects favorably on his work.

cc: 001
400
413 Andrus
418 LEAP-THE-DIPS (OSC)
418 Bearss
418 Henry
418 Charleton

JHCharleton:mg:5/15/91
Charleton disk, item 3



United States Department of the Interior



NATIONAL PARK SERVICE

P.O. BOX 37127

WASHINGTON, D.C. 20013-7127

IN REPLY REFER TO:

H34(418)

MAY 20 1991

Dr. Brent D. Glass
State Historic Preservation Officer
Pennsylvania Historical and Museum Commission
P.O. Box 1026
Harrisburg, PA 17108-1026

Dear Dr. Glass:

The staff of the National Historic Landmarks Survey has recently reviewed the National Register nomination study of the Leap-The-Dips Side-Friction Roller Coaster, in Lakemont Park, in Altoona. We are favorably persuaded by the case for the property's national significance presented in the form. It appears to be a happy discovery.

Certain additional work, however, is necessary to put this study into final form for consideration for Landmark designation by the National Park System Advisory Board. Because we do not anticipate being able to schedule staff revision of this study in the near future, I wish to determine whether your office is able to do so or whether you believe that we could prevail upon the author of the form, Mr. Tom Halterman, of the American Coaster Enthusiasts, to do so. The advantage is that this course of action could permit more timely consideration of the property for designation.

Leap-The-Dips, if its integrity is as claimed in the nomination, is an extraordinary survivor and a strong candidate for Landmark designation. The only roller coasters that have been designated are more elaborate "second-generation" examples, for we had concluded that "side-friction" coasters were an extinct species.

We suggest that the nomination be strengthened by adding sections on the history of the E. Joy Morris Co., a more elaborate discussion of the coaster's integrity, and the source of the statement that the coaster is the only side-friction coaster extant in the United States. Regarding integrity, although the form is somewhat reassuring, the history of coasters generally involved much rebuilding after fires and cannibalizing of parts from others. It is, therefore, critically important to be certain just how much of this coaster consists of rebuilt or replacement parts and when the seemingly minor changes alluded to in the form were made.

I believe that this example points out, in an exceptional way, the manner in which the National Register and National Historic Landmark processes can work in tandem, because it is the National Register nomination that has brought this important candidate to light. A check of our correspondence, from about 5 years ago, reveals that local people in Altoona, who wrote to us regarding the preservation of Lakemont Park, were apparently not then aware of the exceptional importance of the coaster.

We are appreciative of your continued interest in the National Historic Landmarks Program and the exceptional efforts of the staff of your office in that regard. If you or your staff wish to discuss this matter, please contact Jim Charleton of the History Division staff at (202)-343-3793.

Please also feel free to share this letter with Mr. Halterman.

Sincerely,

~~Wol~~ Benjamin Levy

Benjamin Levy, Manager
National Historic Landmarks Survey
History Division

cc: 001
400
413 Shull
418 LEAP THE DIPS (OSC)
418 Levy
418 Milner
418 Charleton
MARO (Gurney)

JHCharleton:mg:5/15/91
Charleton disk, item 4

✓
400-10080211

HOUSE OF REPRESENTATIVES, U.S.
Washington, D.C.

February 17, 1993

Mr. Robert Stanton
National Park Service
U.S. Department of the Interior
1100 Ohio Drive, SW
Washington, DC 20242

The attached communication is submitted for your consideration, and to ask that the request made therein be complied with, if possible.

If you will advise me of your action in this matter and have the letter returned to me with your reply, I will appreciate it.

Very Truly yours,

BUD SHUSTER
MEMBER OF CONGRESS

2188 Rayburn House Office Building
Washington, DC 20515
(202) 225-2431

EGS:cmw



LAKEMONT PARK

FAMILY EXCITEMENT SINCE 1894

February 1, 1993

Mr. Jim Charlton
United States Dept. of Interior
National Park Service
History Division
PO Box 37127
Washington, D.C. 20013-7127

RE: LEAP THE DIPS ROLLER COASTER
LAKEMONT PARK, BLAIR COUNTY, PA.

Dear Mr. Charlton:

As you know our 1902 wooden roller coaster, Leap the Dips, is currently listed on the National Register of Historic Places.

We received a copy of a letter (attached for your convenience) from Mr. Levy of your office directed to Dr. Glass of the Pennsylvania Museum Commission indicating that the Leap the Dips may very well meet all of the qualifications necessary to be named a Historic Landmark.

In Mr. Levy's letter he asked several questions, i.e.:

- 1] Is there more history of the builder E. Joy Morris
- 2] How much of the coaster is still original
- 3] Documentation of the statement "Leap the Dips is the oldest roller coaster in the world and the only remaining side friction figure eight".

I have attached a letter from Mr. Tom Halterman, Preservation Director, American Coaster Enthusiasts which we believe answers all remaining questions.

It is also worthy to note than an engineering study is currently underway to determine exactly what needs to be done to restore the Leap the Dips to operating order. This study should be completed in the next few months.

Page (1) of (2)

February 1, 1993
Mr. Jim Charlton
RE: LEAP THE DIPS

Page (2) of (2)

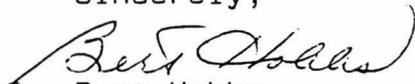
It is our intention to restore the Leap the Dips to its original condition and have it in operation during our 1994 season and our 100th Anniversary.

Can you advise me as to what additional steps, if any, are necessary to have the Leap the Dips nominated and named a National Landmark?

We plan to make a major announcement regarding the restoration of the Leap the Dips on August 20, 1993 and it would be wonderful to announce the Leap the Dips is a National Landmark.

We appreciate the cooperation and courtesies shown by your office to both the Pennsylvania Museum Commission and our organization.

Sincerely,



Bert Hobbs
General Manager

cc:

✓ Congressman Bud Shuster
Senator Robert Jubelirer
Pennsylvania Museum Commission
Blair County Commissioners
Altoona City Council
Logan Township Supervisors
American Coaster Enthusiasts



United States Department of the Interior

NATIONAL PARK SERVICE

P.O. BOX 37127

WASHINGTON, D.C. 20013-7127



IN REPLY REFER TO:

H34(418)

MAY 20 1991

RECEIVED
MAY 22 1991

HISTORIC PRESERVATION

Dr. Brent D. Glass
State Historic Preservation Officer
Pennsylvania Historical and Museum Commission
P.O. Box 1026
Harrisburg, PA 17108-1026

Dear Dr. ^{Brent}Glass:

The staff of the National Historic Landmarks Survey has recently reviewed the National Register nomination study of the Leap-The-Dips Side-Friction Roller Coaster, in Lakemont Park, in Altoona. We are favorably persuaded by the case for the property's national significance presented in the form. It appears to be a happy discovery.

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We suggest the nomination be strengthened by adding sections on the history of the Joy Morris Co., a more elaborate discussion of the coaster's integrity, and the source of the statement that the coaster is the only side-friction coaster extant in the United States. Regarding integrity, although the form is somewhat reassuring, the history of coasters generally involved much rebuilding after fires and cannibalizing of parts from others. It is, therefore, critically important to be certain just how much of this coaster consists of rebuilt or replacement parts and when the seemingly minor changes alluded to in the form were made.

I believe that this example points out, in an exceptional way, the manner in which the National Register and National Historic Landmark processes can work in tandem, because it is the National Register nomination that has brought this important candidate to light. A check of our correspondence, from about 5 years ago, reveals that local people in Altoona, who wrote to us regarding the preservation of Lakeront Park, were apparently not then aware of the exceptional importance of the coaster.

We are appreciative of your continued interest in the National Historic Landmarks Program and the exceptional efforts of the staff of your office in that regard. If you or your staff wish to discuss this matter, please contact Jim Charleton of the History Division staff at (202)-343-3793.

Please also feel free to share this letter with Mr. Halterman.

Sincerely,



Benjamin Levy, Manager
National Historic Landmarks Survey
History Division



2323 Green Street
Philadelphia, PA 19130
January 9, 1993

Mr. Bert Hobbs
Ralph J. Albarano and Sons
Duncansville, PA 16635

Re: Leap-the-Dips

Dear Mr. Hobbs:

This letter summarizes below all of the additional information which I presently have relative to the concerns raised in the National Park Services's letter of May 20, 1991 to the Pennsylvania Historical and Museum Commission:

E. JOY MORRIS

Edward Joy Morris was born in 1861, the son of William and Juvia Nedau Morris.

In 1894 Morris was granted the patent for his Figure Eight Toboggan Slide. In 1895 Morris received a patent for an "Inclined Railway and Water Tobogganing Apparatus", an early chutes ride in which boats descended down an incline to a body of water. Morris was the designer and builder of a chutes and a toboggan at Willow Grove Park which opened near Philadelphia in 1896.

Morris was sued for his chutes device by a Mr. Paul Boyton who had erected a similar chutes ride at Coney Island. The lawsuit was dismissed by a circuit court in 1897, and Morris began installing additional chutes and toboggan slides.

Morris's office was located at 902 Walnut St. in Philadelphia, and the factory was located at 1416-20 Callowhill St. in Philadelphia. Advertisements also indicate that there was a factory at 23rd and Ludlow Street in Philadelphia. Additional offices were opened in Des Moines, Iowa and Leavenworth, Kansas.

In 1896 Morris's three brothers joined him as salesmen of the chute patent franchise. The name of the firm was The Morris Chute Company.

The Morris Chute Company also began building carrouseles with the first carousel delivered in 1899 for Chestnut Hill Park in Philadelphia.

In addition to building and installing toboggan slides (figure eights), chutes, and carrouseles, Morris also operated some of these

rides. The factory was typically closed during the summer park operating season.

E. Joy Morris died on March 13, 1929 at the age of 68.

The above information was gathered from an article by Mr. Frederick Fried which appeared in the Volume 16, Number 1 (Spring 1989) issue of merry-go-roundup, a publication of the National Carousel Association. The article indicates that Mr. Freid has substantial additional information on E. Joy Morris and his company.

INTEGRITY OF LEAP THE DIPS

The coaster was built on swampy ground which was later filled in and the uprights shortened accordingly. This is confirmed by an early photo of the ride which shows a wide swale beneath the coaster; the ground today is level. It is not known when this occurred.

On the final tangent run returning to the station a single dip was replaced by two dips. This is confirmed by an early photo of the ride which shows a single dip; today there are two. It is not known when this change occurred.

The lowest dip in the middle of the figure eight before the final turn was deepened slightly to extend all the way to the ground. It is reported that bolt holes in the uprights indicate the original level of the dip. It is not known when this change occurred.

Certain material changes were made over the years:

Some of the wooden intermediate ties between the uprights which hold the track gauge and side boards were replaced with steel.

Malleable iron chain and gears were replaced with steel.

The bottom rails were originally sugar maple and the sideboards originally long leaf pine. Some of the sideboards were replaced with plywood. The wheels originally rode directly on the wood. The bottom and sideboards were later covered by steel running strips measuring 1/4 inch thick by 4 inches wide to eliminate the need to frequently replace the wood.

These are the only notable known changes to the ride. These changes do not alter the essential character of the ride which is the side friction track system and the figure-eight plan.

The above information was obtained from Mr. Richard Roesch of Altoona who began work at Lakemont in the mid 1940's and is a former manager. He learned some of this information from his predecessors at the park.

SOURCE OF STATEMENT REGARDING UNIQUE STATUS OF LEAP THE DIPS

The American Coaster Enthusiasts publishes an annual census of all the wooden as well as major steel roller coasters standing in North America. Leap-the-Dips is the only side friction and only figure eight coaster listed in the census. The census is compiled from the collective knowledge and research of the organization's members.

The American Coaster Enthusiasts is the world's largest organization of amusement park and roller coaster enthusiasts with more than 4000 members in the United States and 15 foreign countries including Canada, England, Germany and Australia. The organization includes many members who have done substantial historical research and who own extensive collections of amusement park and roller coaster historical information and memorabilia. Some of its members have traveled extensively to ride roller coasters throughout the world. Although coasters outside of North America have not yet been documented as extensively as those in North America, it is currently believed that the locations of all standing wooden roller coasters in the world are known and that Leap-the-Dips is the only remaining roller coaster of its kind in the entire world.

I request that you review this information and let me know of any corrections or additions which you may be able to offer. I am also sending a copy to Mr. Roesch with the request that he review for any errors or omissions the information that he supplied. If you have been in contact with persons from the Historical Commission you may want to share this letter with them to learn whether the additional information will satisfy their requirements.

I am attempting to contact Mr. Freid to see whether he will provide additional information about E. Joy Morris in the event that it is required.

Please feel free to call me at work about this (215-922-8080). I plan to attend Eastcoaster in Allentown later this month. Hopefully I will see you there and we can further discuss what to do next concerning National Historic Landmark status for Leap-the-Dips.

Very truly yours,



Tom Halterman
Preservation Director,
American Coaster Enthusiasts

cc: R. Roesch
R. Ueberroth

MAR 12 1993

H34(418)

Honorable Bud Shuster
House of Representatives
Washington, DC 20515

Dear Mr. Shuster:

Thank you for your letter of February 17, transmitting a copy of a letter from Mr. Bert Hobbs, General Manager of Lakemont Park, requesting the designation of the Leap the Dips Roller Coaster as a National Historic Landmark by August 20. In reply, we note that we have not received the original letter from Mr. Hobbs. Unfortunately, we are not able to comply with his request.

Enclosed with Mr. Hobbs' letter is a copy of correspondence, being returned to you, that my staff prepared in May 1991. In that letter, we noted that we would not be able to prepare a staff revision of the study in the near future, but that we would encourage its preparation by others. The circumstances described in that letter have not changed.

We do not have staff and funds that can be diverted from existing Congressional mandates to perform studies of other themes and undertake the requested study. We do continue to encourage volunteer preparation of it. It was in that light, for example, that we wrote to Dr. Glass in 1991.

I must also note that the timetable for consideration requested by Mr. Hobbs is not achievable. Even if a study were completed in the near future, the National Park System Advisory Board, which reviews National Historic Landmark studies, meets only twice a year. It will not meet until August, and its schedule will not permit adequate time for the Secretary of the Interior to review the Board's recommendation and make a decision on designation by August 20.

When circumstances change and it becomes possible for us to conduct such a study, or if a volunteer to prepare it should come forward, we will promptly advise Mr. Hobbs.

JHC
3/8/93
Blay 3/8/93

Kum
SB

R Bowen
3/11/93

We appreciate your interest and that of your constituent in the work of the National Historic Landmarks Survey and regret that we cannot provide more definite information on the scheduling of a study.

Sincerely,

/Sgd/Jerry L. Rogers

Jerry L. Rogers
Associate Director,
Cultural Resources

Enclosures

cc: 001 190
400
418 Levy
418 Henry
418 Charleton
418 Leap-The-Dips Roller Coaster (OSC)
MARO (Bolger)
SHPO (Pennsylvania)

JHCharleton:mg:3/5/93
Charleton's disk leapdips

Control # : 10080211
Final Due : ~~2-30-93~~ 3/B
Assigned To : CULTURAL RESOURCES MARO
Name : SHUSTER FOR BENJAMIN LEVY 2-17-93
Park : National Park Service
Subject: : National Register
Description : NATIONAL REGISTER NOMINATION STUDDY OF THE
LEAP-THE-DIPS SIDE FRICTION ROLLER COASTER, IN LAKE
Document Title : INCOMING- BUD SHUSTER
Signature Level/Action : Direct Resp.Assoc. Dir
Draft Due : N/A
Date Received : 2-23-93
NPS Status : ASSIGNED
Congressional? : Y
Case Worker : D. LOWERY 208-6328

MAR 2/1993



Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

RECEIVED 413

May 3, 1995

MAY 12 1995

INTERAGENCY RESOURCES DIVISION
NATIONAL PARK SERVICE

Carol Shull, Chief of Registration
National Register of Historic Places
U.S. Department of Interior
800 North Capitol Street, Suite 250
Washington, D.C. 22002

Re: National Historic Landmark
nomination for Leap-the-Dips,
Blair County, PA

Dear Ms. Shull:

Enclosed is National Historic Landmark nomination for Leap-the-Dips, including a nomination form and two photographs. This property was listed in the National Register in 1991. A previous draft of the nomination was reviewed by NHL staff and comments were sent to us by Ben Levy (his letter of May 20, 1991). Bureau for Historic Preservation staff has provided review assistance to the preparer in revising the nomination. We feel that the enclosed nomination responds well to Mr. Levy's comments and makes the case for this property's national importance.

If you have any questions regarding the nomination please call us at (717) 783-8947.

Sincerely,

Dan G. Deibler, Chief
Division of Preservation
Services

Enclosures
cc: Tom Halterman
DGD/gr
DC23



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

THIRD AND NORTH STREETS, BOX 1026
HARRISBURG, PENNSYLVANIA 17108-1026

RECEIVED 413

SEP 13 1995

September 1, 1995

INTERAGENCY RESOURCES DIVISION
NATIONAL PARK SERVICE

Mr. Robie Lange
National Historic Landmark Program
U.S. Department of Interior
800 North Capitol Street, Suite 250
Washington, D.C. 20002

Re: Leap-the-Dips, Blair
County, PA

Dear Ms. Lange:

Enclosed are copies of the photographs and site plan which were omitted from our May 3, 1995 mailing of the NHL nomination for Leap-the-Dips.

Sincerely,

Gregory Ramsey
Chief, National Register and Survey Programs

enclosure
cc: Tom Halterman
GR/gr

Enclosures
DGD/dlc
DC23



2320 Green Street
Philadelphia, PA 19130
October 11, 1995

Mr. Robie Lange
National Historic Landmark Program
U.S. Department of the Interior
800 North Capitol Street, Suite 250
Washington, D.C. 20002

Re: Leap-the-Dips

Dear Mr. Lange:

In accordance with our telephone conversations, please find enclosed Sections 7 and 8 of the registration form. These have been revised to incorporate most of your suggestions. The changes/additions are underlined for your easy reference. A diskette with Wordperfect 5.1 files of these sections is also enclosed.

In addition, I've enclosed a copy of the original patent and the 1904 advertisement for your information.

The annotated USGS quadrangle is being mailed separately in a tube.

Please call me if you need anything further at this time.

Very truly yours,

AMERICAN COASTER ENTHUSIASTS

Tom Halterman
Preservation Director

encl.

MON 1:13 PM URBAN ENGINEERS 16 FL. FAX NO. 215 9
G-95 12.25 FROM: NPS/VASO/HISTORY ID: 2023431

INFORMATION FOR NOTICE LETTERS

PLEASE ATTACH ADDITIONAL PAGES IF NECESSARY.

EXACT NAME OF PROPERTY

(The historic name is preferred. This name will be used throughout the process and for purposes of the National Park Service/Allegheny National Monument.)

Leap-the-Dips

Other Names if different from name listed above: None

LOCATION(S) OF PROPERTY

Street Number: 700 Park Avenue (Lakemont Park)

Town: Altoona (Municipal Bldg)

State: PA Zip: 16602

Other: Logan Township

OWNERSHIP OF PROPERTY

Are there multiple owners? (YES/NO) or you

Name: John G. Ebersole

Title: County of Blair

Street Number: 423 Allegheny

Town: Hollidaysburg

State: PA Zip: 16648

Is this owner: PRIVATE or PUBLIC? Public

If Public, is this owner: LOCAL, STATE, FEDERAL? Local

HIGHEST LOCALLY-ELECTED OFFICIAL(S) for the jurisdiction identified as location of the property.

(NOTE: These individuals must hold an ELECTED office; appointed administrative officers do not meet this requirement.)

Name: John Ebersole; Donna Gority; James A. Patterson; John Eichelberger

Title: Blair County Commissioner; Township Supervisor; Municipal Bldg

Street Number: 423 Allegheny Street; 800 39th St.

Town: Hollidaysburg; Altoona

State: PA Zip: 16648; 16602 Telephone: (814) 695-5541

SENATORS and CONGRESSIONAL REPRESENTATIVES Please list the names of State individuals.

(NOTE: Use only the representative for the district in which the property is located.)

Sen. Robert Jubelirer; Congressman Bud Shuster; Rep. Rick Geist

Attn: John McAllister

OTHER INTERESTED PARTIES It would be appropriate to inform of this nomination.

(NOTE: These individuals will receive copies of notice correspondence.)

Name: The Leap-the-Dips Preservation Foundation, Inc.

Title: c/o John Kazmaier, President

Street Number: 700 Park Avenue

Town: Altoona

State: PA Zip: 16602 Telephone: (814) 949-7275

PLEASE ATTACH ADDITIONAL PAGES IF NECESSARY.

National Park Service/Allegheny National Monument Division: September 1993

Monette
This property is ready for notice letters
The 2 PA senators are Rick Santorum (SP?) and Alan Specter (SP?)

Mr. Voltz
Logan Township Municipal Bldg
800 39th St. Altoona 16602
Logan Township
County clerk
M. Cooper
Lakemont

Personal property

Mr. Voltz
(814) 944-1543
Chairman
of County

MON 1:13 PM URBAN ENGINEERS 16 FL.

FAX NO. 215 923 5611

P. 2

8-88 18.25 PROJ. NPS/VASO/HISTORY

ID: 2023431244

PAGE 2/2

INFORMATION FOR NOTICE LETTERS

PLEASE ATTACH ADDITIONAL PAGES IF NECESSARY.

EXACT NAME OF PROPERTY

(The historic name is preferred. This name will be used throughout the process and for purposes of listing and filing.)

Leap-the-Dips

Other Name if different from name above: None

LOCATION(S) OF PROPERTY (Be as complete as possible; give landmark data for all sites involved.)

Street Number: 700 Park Avenue (Lakemont Park)

Town: Altoona (mailing)

State: PA Zip: 16602 County: Blair

Other: Logan Township

OWNER(S) OF PROPERTY

Are there multiple owners? (YES/NO) or you, please provide complete information for each owner on an attached page.)

John G. Ebersole

Name: County of Blair

Title: c/o Commissioners' Office

Street Number: 423 Allegheny Street

Town: Hollidaysburg

State: PA Zip: 16648 Telephone: (814) 695-5541

Is this owner: PRIVATE or PUBLIC? Public

If Public, is this owner: LOCAL, STATE, FEDERAL? Local

*Mr. Volte, Mayor
(814) 944-1543*

HIGHEST LOCALLY-ELECTED OFFICIAL(S) for the jurisdiction identified as location of the property.

NOTE: These individuals must hold an ELECTED office; appointed administrative officers do not meet this requirement.

Name: John Ebersole; Donna Gority; James A. Patterson; John Eichelberger

Title: Blair County Commissioner; Township Supervisor; Municipal Bldg

Street Number: 423 Allegheny Street; 800 39th St.

Town: Hollidaysburg; Altoona

State: PA Zip: 16648; 16602 Telephone: (814) 695-5541

Chairman of Board of County

SENATORS and CONGRESSIONAL REPRESENTATIVES Please list the names of these individuals.

NOTE: List only the representative for the district in which the property is located.

Sen. Robert Jubelirer; Congressman Bud Shuster; Rep. Rick Geist

Attn: John McAllister

OTHER INTERESTED PARTIES It would be desirable to inform of this nomination.

NOTE: These individuals will receive copies of notice correspondence.

Name: The Leap-the-Dips Preservation Foundation, Inc.

Title: c/o John Kazmaier, President

Street Number: 700 Park Avenue

Town: Altoona

State: PA Zip: 16602 Telephone: (814) 949-7275

*For mailing purposes
please indicate jurisdiction*



Urban Engineers, Inc.
Multidisciplinary Consultants

*530 Walnut Street
Penn Mutual Tower, 16th Fl.
Philadelphia, PA 19106-1193
Telephone (215) 923-5077
Fax (215) 923-5611*

TELECOPIER MESSAGE

DATE: JAN 29 1996

TO: Name ROBIE LANGE

Firm NATIONAL PARK SERVICE

City WASHINGTON

Fax # (202) 343-1244

FROM: TOM HALTERMAN

PAGES (Including this sheet): 2

NOTES TO RECEIVER:

If you have any problems getting all pages, please call (215) 923-5077.

Incoming teletypes should be sent to (215) 923-5611.

Prior to transmission, please call (215) 923-5077 to ensure reception.

COUNTY of BLAIR

OFFICE OF THE COMMISSIONERS

COURT HOUSE
423 ALLEGHENY ST., P.O. BOX 539
HOLLIDAYSBURG, PENNSYLVANIA 16648-0539
TELEPHONE (814) 695-5541

JOHN J. EBERSOLE
President
JOHN H. EICHELBERGER JR.
Vice President
DONNA D. GORITY
Secretary
TERRY L. WAGNER
Chief Clerk
MERLE K. EVEY
Solicitor

DATE: 2-7-96
TO: Robie Lange - Nat'l Park Service
FROM: Janice Blair
FAX NO. 202-343-1244
NUMBER OF PAGES TRANSMITTED: 2 (including cover sheet)

REMARKS: _____

NOTE: IF ALL PAGES NOT RECEIVED, OR IF ILLEGIBLE,
PLEASE NOTIFY THIS OFFICE.

LOGAN TOWNSHIP

BOARD OF SUPERVISORS:

JAMES A PATTERSON

ARTHUR A ALBRIGHT II

FRANK J MELOY

**MUNICIPAL BUILDING
800 39TH STREET
ALTOONA PA 16602**

Ref 3/4/96

H34(2280)

MAR 5 1996
Mr. John J. Ebersole, Chairman
Board of County Commissioner
Blair County
423 Allegheny Street
Hollidaysburg, Pennsylvania 16648

Dear Chairman Ebersole:

We are pleased to inform you that the National Park Service has completed the study of the **Leap-the-Dips, Logan Township**, for the purpose of nominating it for possible designation as a National Historic Landmark. We enclose a copy of the study report. The National Park System Advisory Board will consider the nomination during its next meeting, at the time and place indicated on an enclosure. This enclosure also specifies how you may comment on the proposed nomination if you so choose. The Board will make its recommendation to the Secretary of the Interior based upon the criteria of the National Historic Landmarks Program.

You have 60 days to submit your views in writing, if you so desire. After the 60-day period, we will submit the nomination and your comments to the National Park System Advisory Board's Landmarks Committee, which will then inform the full Advisory Board of the Committee's recommendations at the Board's meeting. The Secretary of the Interior will then be informed of the Board's recommendations for his final action.

To assist you in considering this matter, we have enclosed a copy of the regulations governing the National Historic Landmarks Program. They describe the criteria for designation (Sec. 65.4) and include other information on the Program. We are also enclosing a fact sheet that outlines the effects of designation.

Sincerely,

(Sgd) Carol D. Shull

Carol D. Shull
Chief, National Historic Landmarks Survey
Keeper, National Register of Historic Places

Enclosures

**PROPERTY STUDIED FOR
NATIONAL HISTORIC LANDMARK DESIGNATION**

LEAP-THE-DIPS

LOGAN TOWNSHIP, BLAIR COUNTY, PENNSYLVANIA

The Landmarks Committee of the National Park System Advisory Board will evaluate this property at a meeting to be held on Monday, May 6, 1996 beginning at 9:00 a.m. in Room 7000A, Main Interior Building, 1849 C Street, NW, Washington, DC. The Landmarks Committee evaluates the studies of historic properties being nominated for National Historic Landmark designation in order to advise the full National Park System Advisory Board at their meeting on Wednesday, May 8, 1996, in Room 5160, Main Interior Building and will recommend to the full Board those properties that the Committee finds meet the criteria of the National Historic Landmarks Program.

Owners of private properties nominated for NHL designation have an opportunity to concur with or object to listing in accord with the National Historic Preservation Act and 36 CFR 65. Any owner or partial owner of private property who chooses to object to designation may submit to Ms. Carol D. Shull, Chief, National Historic Landmarks Survey, at the National Park Service, National Register, History and Education (2280), P.O. Box 37127, Suite 310, Washington, DC 20013-7127 a notarized statement certifying that the party is the sole or partial owner of the private property and objects to the designation. Each owner or partial owner of private property has one vote regardless of the portion of the property that the party owns. If a majority of private property owners object, a property will not be designated.

Should you wish to obtain information about these meetings, or about the National Historic Landmarks Program, please contact Historian Patty Henry at the National Park Service, National Register, History and Education (2280), P.O. Box 37127, Suite 310, Washington, DC 20013-7127; or by telephone at (202)-343-8163.

If you have questions concerning the study, which was prepared by Mr. Tom Halterman, you may contact Mr. Robie Lange of the National Register, History and Education at the address above or by telephone at (202)-343-0350.

SIMILAR LETTERS SENT TO:

**OWN: Mr. John J. Ebersole, Chairman
Board of County Commissioner
Blair County
423 Allegheny Street
Hollidaysburg, Pennsylvania 16648**

**HEO: Mr. James A. Patterson
Township Supervisor
Municipal Building
800 39th Street
Altoona, Pennsylvania 16602**

**SHPO: Dr. Brent D. Glass, SHPO
Pennsylvania Historical & Museum Commission
P.O. Box 1026
Harrisburg, Pennsylvania 17108**

**cc: Mr. John Kazmaier, President
The Leap-the-Dips Preservation Foundation Inc.,
700 Park Avenue
Altoona, Pennsylvania 16002**

**bcc: (NEFA) B. Bolger
0001 RF
2612 OST
2200 RF
2280 Lange
2280 LEAP-THE-DIPS (NHL Pending)**

**FNP:PHenry:mg:2/5/96
F:\NR-NHL\NOTICE.LTR\LEAP-2.LTR**

R. Jones
3/4/96

H34(2280)

MAR 5 1996

Honorable Arlen Specter
United States Senate
Washington, DC 20510

Dear Senator Specter:

We are pleased to inform you that the National Park Service has completed the study of the **Leap-the-Dips, Logan Township**, for the purpose of nominating it for possible designation as a National Historic Landmark. We enclose a copy of the study report. The National Park System Advisory Board will consider the nomination during its next meeting, at the time and place indicated on an enclosure. This enclosure also specifies how you may comment on the proposed nomination if you so choose. The Board will make its recommendation to the Secretary of the Interior based upon the criteria of the National Historic Landmarks Program.

You have 60 days to submit your views in writing, if you so desire. After the 60-day period, we will submit the nomination and your comments to the National Park System Advisory Board's Landmarks Committee, which will then inform the full Advisory Board of the Committee's recommendations at the Board's meeting. The Secretary of the Interior will then be informed of the Board's recommendations for his final action.

To assist you in considering this matter, we have enclosed a copy of the regulations governing the National Historic Landmarks Program. They describe the criteria for designation (Sec. 65.4) and include other information on the Program. We are also enclosing a fact sheet that outlines the effects of designation.

Sincerely,

(Sgd) Carol D. Shull *for*
Katherine H. Stevenson
Associate Director, Cultural Resources
Stewardship and Partnerships

Enclosures

**PROPERTY STUDIED FOR
NATIONAL HISTORIC LANDMARK DESIGNATION**

LEAP-THE-DIPS

LOGAN TOWNSHIP, BLAIR COUNTY, PENNSYLVANIA

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Should you wish to obtain information about these meetings, or about the National Historic Landmarks Program, please contact Historian Patty Henry at the National Park Service, National Register, History and Education (2280), P.O. Box 37127, Suite 310, Washington, DC 20013-7127; or by telephone at (202)-343-8163.

If you have questions concerning the study, which was prepared by Mr. Tom Halterman, you may contact Mr. Robie Lange of the National Register, History and Education at the address above or by telephone at (202)-343-0350.

SIMILAR LETTERS SENT TO:

**Honorable Arlen Specter
United States Senate
Washington, DC 20510**

**Honorable Rick Santorum
United States Senate
Washington, DC 20510**

**Honorable Bud Shuster
House of Representatives
Washington, DC 20515**

**bcc: (NEFA) B. Bolger
0001 RF
2612 OST
2200 RF
2280 Pitts
2280 LEAP-THE-DIPS (NHL Pending)**

**FNP:PHenry:mg:2/5/96
F:\NR-NHL\notice.ltr\leap-2d.ltr**

400 - 100.80C86



Congress of the United States

House of Representatives

March 19, 1996

BUD SHUSTER
9TH DISTRICT, PENNSYLVANIA

National Park System Advisory Board
National Park Service
P.O. Box 37127
Washington, D.C. 20013-7127

Dear Friends:

It is my privilege and honor to endorse the nomination of the Leap-the-Dips roller coaster in Logan Township for designation as a National Historic Landmark.

Few forget their first experience on a roller coaster. Whether that experience has come at an amusement park in Pennsylvania or California, it is a thrill for young and old alike as they marvel in the engineering feats that roller coasters perform. Thus, roller coasters have become as synonymous with our culture as "mom and apple pie", and the Leap-the-Dips roller coaster is the great-grandfather of them all.

Built in 1902 by Edward Joy Morris, Leap-the-Dips is the last known example of a Side Friction Figure Eight roller coaster. Its technology, while primitive by today's standards, was the cornerstone for which roller coasters were constructed in the early part of this century. The Leap-the Dips is the archetype for most of the rides operated in amusement parks around the world until 1920. Sadly, it is the sole survivor of this tradition of roller coaster representing a very important period in the history of the roller coaster, the amusement park and our nation.

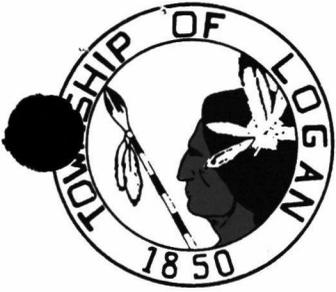
Universally designated as the oldest standing roller coaster in North America, the Leap-the-Dips may very well be the oldest standing roller coaster in the world. Its testament to a once popular and wide spread type of roller coaster architecture is an important piece of roller coaster and amusement park history. Its designation as a National Historic Landmark goes a long way toward preserving our culture and society for future generations.

With kindest regards, I remain

Sincerely,

A handwritten signature in dark ink, appearing to read "Bud Shuster".

BUD SHUSTER
MEMBER OF CONGRESS



LOGAN TOWNSHIP / BOARD OF SUPERVISORS

800 39TH STREET, ALTOONA, PA 16602-1799

PHONE 814-944-5349 FAX 814-949-3352 TDD 814-949-3366

RECEIVED 2280

APR 25 1996

NAT. REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

April 18, 1996

Carol D. Shull, Chief
National Historic Landmarks Survey Keeper
National Register of Historic Places
United States Department of the Interior
National Park Service
P O Box 37127
Washington, D.C. 20013-7127

Dear Ms. Shull:

Thank you for your letter relative to the possible designation of the Leap-the-Dips, Lakemont Park, Logan Township, as a National Historic Landmark.

This matter was thoroughly discussed during our Board meeting. We wish to highlight the following observations to your Board as evidenced by informational materials forwarded to us:

1. The Leap-the-Dips, located in Lakemont Park, is a side-friction figure eight roller coaster, made of wood, which was constructed in 1902 by E. Joy Morris of Philadelphia, Pennsylvania.
2. Changes which were made to the original construction have not altered the essential character of the coaster. Most of the modifications were made in response to normal maintenance requirements under the dictates of labor and material available during that time period.
3. The Leap-the-Dips is the only known remaining side-friction figure eight coaster in North America. It is believed to be the last of its kind in the world. It is also believed to be the oldest known standing coaster in the world.

As noted in data provided our Board, the Leap The Dips Preservation Foundation, Inc. has been founded for the purpose of raising funds to restore and operate the coaster. The Foundation has leased the ride from the County of Blair and has full responsibility for it.

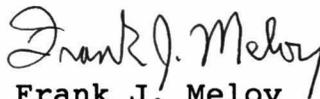
Carol D. Shull, Chief
National Historic Landmarks Survey Keeper
April 18, 1996
Page Two

Although the Board of Supervisors of Logan Township has no vested interest in this private undertaking, we support the spirit of this worthwhile venture. We Board members are not experts on roller coasters nor do we aspire to become authorities on this topic. What we do know is that every Board member of this Township since 1902 has enjoyed Lakemont Park and it's signature ride, the Leap-the-Dips! We are, of course, quite prideful in the Township of Logan and are enormously pleased that this 'piece of history' may be designated as a National Historic Landmark.

Sincerely,
LOGAN TOWNSHIP BOARD OF SUPERVISORS



Arthur A. Albright
Chairman



Frank J. Meloy
Vice-Chairman



James A. Patterson
Secretary/Treasurer

BOS.b1



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
P.O. BOX 1026, HARRISBURG, PENNSYLVANIA 17108-1026

EXECUTIVE DIRECTOR



April 25, 1996

Carol D. Shull
Chief, National Historic Landmarks Survey
U.S. Department of the Interior
National Park Service
PO Box 37127
Washington, D.C. 20013-7127

Re: Leap-the-Dips, Logan Twp.,
Blair County, PA

Dear Ms Shull:

As State Historic Preservation Officer, I support the proposed designation of Leap-the-Dips roller coaster as a National Historic Landmark. Leap-the-Dips is an excellent example of the once common side-friction figure-8 roller coaster; it retains all the significant characteristics and details typical of such rides constructed during the first two decades of the 20th century. PHMC staff in the Bureau for Historic Preservation assisted with the preparation of the nomination study for this roller coaster. Leap-the-Dips is an important and extremely rare property deserving of recognition as a National Historic Landmark.

Sincerely,

Brent D. Glass



United States Department of the Interior

NATIONAL PARK SERVICE
P.O. Box 37127
Washington, D.C. 20013-7127

IN REPLY REFER TO:

H3415(418)

MEMORANDUM

To: Secretary

Through: George T. Frampton, Jr. *George T Frampton Jr.*
Assistant Secretary for Fish and Wildlife and Parks JUN 7 1996

From: Roger G. Kennedy *Roger G Kennedy*
Director MAY 23 1996

Subject: Designation of Twenty-Five Properties as National Historic Landmarks:
Request for Secretarial Action

At a meeting on May 8, 1996, the National Park System Advisory Board recommended designation of the following 25 properties as National Historic Landmarks:

ARCHITECTURE

1. ST PETER'S CHURCH, PHILADELPHIA, PENNSYLVANIA
2. ROUND CHURCH, RICHFIELD, VERMONT
3. ST. JOHNSBURY ATHENAEUM, ST. JOHNSBURY, VERMONT
4. ST. ALPHONSUS CHURCH, NEW ORLEANS, LOUISIANA
5. KINGSCOTE, NEWPORT, RHODE ISLAND
6. 69TH REGIMENT ARMORY, NEW YORK, NEW YORK
7. FRANKLIN SCHOOL, WASHINGTON, DC
8. FARSON, JOHN, HOUSE, OAK PARK, ILLINOIS
9. THE ELMS, NEWPORT, RHODE ISLAND
10. MIAMI BILTMORE HOTEL, CORAL GABLES, FLORIDA
11. ANDERSON HOUSE, WASHINGTON, DC
12. CHURCH OF THE ADVOCATE, PHILADELPHIA, PENNSYLVANIA
13. WOODBURY COUNTY COURTHOUSE, SIOUX CITY, IOWA

PREPARED BY: Patty Henry TELEPHONE: (202) 343-8163

ARCHEOLOGY

14. **DANCING RABBIT CREEK TREATY SITE**, NOXUBEE COUNTY, MISSISSIPPI
15. **YUCHI TOWN SITE**, FORT BENNING, ALABAMA
16. **FORT BOONESBOROUGH**, MADISON COUNTY, KENTUCKY
17. **EAKER SITE**, BLYTHEVILLE, ARKANSAS
18. **OBSIDIAN CLIFF**, YELLOWSTONE NATIONAL PARK, WYOMING

MARITIME HISTORY

19. **PALMER, NATHANIEL, HOUSE**, STONINGTON, CONNECTICUT

CIVIL WAR HISTORY

20. **BENTONVILLE BATTLEFIELD**, JOHNSTON COUNTY, NORTH CAROLINA

HISTORY OF RECREATION

21. **PINEHURST HISTORIC DISTRICT**, PINEHURST, NORTH CAROLINA
22. **LEAP-THE-DIPS**, ALTOONA, PENNSYLVANIA

HISTORY OF MEDICINE

23. **OLD MEDICAL COLLEGE**, AUGUSTA, GEORGIA

ETHNIC HISTORY

24. **ELDRIDGE STREET SYNAGOGUE**, NEW YORK, NEW YORK

POLITICAL AND MILITARY HISTORY

25. **MARSHALL, GEORGE C., HOUSE**, LEESBURG, VIRGINIA

In accordance with National Historic Landmarks Program regulations, the Board reviewed the studies nominating these properties for Landmark status and found that the properties meet National Historic Landmarks Program criteria. The Board, therefore, voted to recommend that they be designated as National Historic Landmarks.

At the same May 8, 1996, meeting, the National Park System Advisory Board also recommended the boundary increase and name change for the following National Historic Landmark formerly designated as the ELKINS, SENATOR STEPHEN BENTON, HOUSE:

BOUNDARY INCREASE

1. **DAVIS AND ELKINS HISTORIC DISTRICT**, ELKINS, WEST VIRGINIA

I recommend that you approve the Board's recommendations and designate as National Historic Landmarks the 25 properties listed above and approve the boundary increase and name change for the National Historic Landmark listed above.

APPROVE: *Be Bullitt* DISAPPROVE: _____

DATE: JUN 19 1996

DATE: _____

ATTACHMENT

H3417(2280)

JUL 12 1996

Mr. John J. Ebersole
Chairman
Board of County Commissioner
Blair County
423 Allegheny Street
Hollidaysburg, Pennsylvania 16648

Dear Chairman Ebersole:

I am pleased to inform you that Leap-the-Dips in Altoona, Pennsylvania, has been found to possess national significance in the history of the United States. As a result, the Secretary of the Interior designated it a National Historic Landmark on June 19, 1996.

The purpose of landmark designation is to identify and recognize nationally significant sites and to encourage their owners to preserve them. Landmarks are chosen after careful study by the National Park Service. They are evaluated by the National Park System Advisory Board and designated by the Secretary of the Interior in accordance with the Historic Sites Act of 1935 and the National Historic Preservation Act of 1966.

Designation as a National Historic Landmark automatically places a property in the National Register of Historic Places, if it is not already so listed, and extends to it the safeguards and benefits provided by the National Historic Preservation Act of 1966 and other Federal laws protecting historic properties.

Each Landmark is eligible to receive a bronze plaque to commemorate the designation of the property. Copies of the plaque application form are enclosed. Please complete the form in triplicate and return two copies to the National Historic Landmarks Coordinator identified on the form. You may retain the third copy for your records.

Unless you specify otherwise, the plaque will bear the name of the property as it appears above. The plaque has a standard text, except for the name of the property (a maximum of two lines) and the year of designation. If you have questions about the plaque, please contact the National Historic Landmarks Coordinator identified on the form.

The National Park Service will be pleased to assist the owner if they wish to arrange a ceremony for the presentation of the plaque. Such a ceremony should be scheduled a minimum of several months after notice of designation to provide time to cast the plaque and to arrange the participation of appropriate officials in the ceremony.

We are pleased to include Leap-the-Dips on the roll of National Historic Landmarks as a significant representative of our Nation's heritage.

Sincerely,

(Sgd.) Carol D. Shull

Carol D. Shull
Chief, National Historic Landmarks Survey
Keeper of the National Register of Historic Places

Enclosures

SIMILAR LETTERS SENT TO:

OWN: Mr. John J. Ebersole, Chairman
Board of County Commissioner
Blair County
423 Allegheny Street
Hollidaysburg, Pennsylvania 16648

HEO: Mr. James A. Patterson
Township Supervisor
Municipal Building
800 39th Street
Altoona, Pennsylvania 16602

SHPO: Dr. Brent D. Glass, SHPO
Pennsylvania Historical & Museum Commission
P.O. Box 1026
Harrisburg, Pennsylvania 17108

cc: Mr. John Kazmaier, President
The Leap-the-Dips Preservation Foundation Inc.,
700 Park Avenue
Altoona, Pennsylvania 16002

bcc: (NEFA) B. Bolger
0001 RF
2612 OST
2200 RF
2280 Lange
2280 LEAP-THE-DIPS (NHL)

FNP:PHenry:mg:6/19/96
F:\NR-NHL\NOTICE.LTR\LEAP-2.LTR

PH 7/22/96

RBower

JUL 24 1996

7/23/96

7/23
Branch 7/23

M. Slop
(for GR) 7/24

H3417(2280)

Honorable Arlen Specter
United States Senate
Washington, DC 20510

Dear Senator Specter:

I am pleased to inform you that Leap-the-Dips in Altoona, Pennsylvania, has been found to possess national significance in the history of the United States. As a result, the Secretary of the Interior designated it a National Historic Landmark on June 19, 1996.

The purpose of landmark designation is to identify and recognize nationally significant sites and to encourage their owners to preserve them. Landmarks are chosen after careful study by the National Park Service. They are evaluated by the National Park System Advisory Board and designated by the Secretary of the Interior in accordance with the Historic Sites Act of 1935 and the National Historic Preservation Act of 1966.

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Each Landmark is eligible to receive a bronze plaque to commemorate the designation of the property. Copies of the plaque application form have been sent to Mr. John J. Ebersole. Unless specified otherwise by the owner, the plaque will bear the name of the property as it appears above. The plaque has a standard text, except for the name of the property (a maximum of two lines) and the year of designation.

The National Park Service will be pleased to assist the owner if they wish to arrange a ceremony for the presentation of the plaque. Such a ceremony should be scheduled a minimum of several months after notice of designation to provide time to cast the plaque and to arrange the participation of appropriate officials in the ceremony.

We are pleased to include Leap-the-Dips on the roll of National Historic Landmarks as a significant representative of our Nation's heritage.

Sincerely,

/s/ Katherine Stevenson

acting

Roger G. Kennedy
Director

• SIMILAR LETTERS SENT TO:

Honorable Arlen Specter
United States Senate
Washington, DC 20510

Honorable Rick Santorum
United States Senate
Washington, DC 20510

Honorable Bud Shuster
House of Representatives
Washington, DC 20515

bcc: (NEFA) B. Bolger
0001 RF
2612 OST
2200 RF
2280 Lange
2280 LEAP-THE-DIPS (NHL Pending)

FNP:PHenry:mg:7/19/96
F:\NR-NHL\NOTICE.LTR\LEAP-2D.LTR

Henry Wood, PA.
Mission Beach in CA

Leap-the-Dips roller coaster, Altoona, PA

-If not on disk, we need to scan

-detail photos (track, sheds, equipment, side-friction orientation, overall setting) color slides, USGS map

-does integrity section address cars and sheds?

-is context for side-friction figure 8s adequate? Is it significant as side friction, or as side-friction figure 8? What about non-figure 8 side frictions? p.8-2, para 6 says no more scenic railways??? pp.8-0 & 8-3: The statement of significance should report it as the only known remaining side-friction (of either figure 8 or non-figure 8. When they say last coaster in U.Z.S, do they mean wooden???

-patent research would show more on Edward Morris's design.

-p.8-1 typo in FN 1, "oeprated". Should this point be that more once existed?

-p.8-2, line 6-7: how does he mean "roller coaster"? Does he mean scenic railways?

-p.8-2: Do you document how we know Morris designed this coaster?

-owner support?

* 1990 photo as pre. artwork

I need to clarify details of "Scenic Railways" with more sources

lets FR other roller coasters during in research

Tom Hultman 215-923-5077
Patty Burke
814-695-9883
sec. of Leap-the-dips
& works for the contractor
Contact person if Burke
atop

Leap-fk-Dips

1. Need to make technical corrections

2. Confirm whether listed

3. My / substantive question is how to relate this to the recreation theme study & other listed sources: whether to cite theme study in bibliography. Robt please find theme study & let's resolved make a decision

4. Also, I would think that if makes it for engineering too. No

Let's see if we could copy a form with roller coaster similar about the imp. of this form to recreation & cite it as source.

UNITED STATES PATENT OFFICE.

EDWARD JOY MORRIS, OF PHILADELPHIA, PENNSYLVANIA.

TOBOGGAN-SLIDE.

SPECIFICATION forming part of Letters Patent No. 522,025, dated June 20, 1894.

Application filed March 10, 1894; Serial No. 503,849. (No model.)

To all whom it may concern:

Be it known that I, EDWARD JOY MORRIS, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented an Improvement in Toboggan-Slides, of which the following is a specification.

My invention relates to the class of toys or amusement apparatus known as toboggan slides, and consisting of permanent ways usually elevated from the ground and disposed in a downwardly inclined circuitous or spiral arrangement so as to secure the maximum length of track in the space available,—of toboggans or trolleys adapted for travel along said ways,—and of motive devices, such as suitably actuated cables, for the elevation of the toboggans to upper levels of the ways.

In apparatus of the foregoing character it is desirable that the ways should be straight for as great a portion of their length as possible, and also that the curves should be of the greatest possible radius,—both to insure ease and smoothness of travel of the toboggan and consequent comfort of the passengers,—and to lessen as far as possible the strain upon the ways, the toboggan, and the motive mechanism, incident to traveling at high speeds around curves of small radius.

It is the object of my invention,—which relates to the ways alone,—to provide a permanent toboggan way of novel and attractive form, combining long straight courses with curved courses of large radius, and allowing of a maximum length of ways for the space occupied by the structure as an entirety.

In the drawings, Figure 1 is a top plan view, and Fig. 2 a view in side elevation, of a permanent toboggan way embodying a good form of my invention.

The toboggan slide way may, as stated, be of any selected character or material,—and the toboggans of any preferred character, preferably roller-provided, and arranged to travel by gravity, and as to upwardly inclined courses to be propelled by motive power applied in any desired manner.

Generally stated, my invention comprehends the provision of a permanent toboggan way, the intermediate courses or stretches of which are elevated from the ground and possess

any desired downward inclination, and are arranged, in plan, in the general form of a figure 8, which from the bottom of the structure to its top, is duplicated or multiplied any desired number of times, one figure merging into another.

In the accompanying drawings, A are the toboggan slide ways proper, the same consisting of a narrow elongated tramway of any preferred construction, and provided with one or more railways, and B are the uprights, piers, posts, or brackets, upon which said ways are supported. It will, of course, be understood that uprights or supports of any desired character and disposed in any desired arrangement, may be employed.

Assuming that the end of the ways which is designated S to be the starting point, and pursuing along said ways the course taken by a toboggan in use upon them, the said ways rise without lateral curves, and at such inclination as the proportions of the structure may dictate, from said starting point to such height as may be predetermined, being the highest point of the completed structure and indicated by the letter H in the accompanying drawings. From said highest point H the ways trend downward to the left and toward the west side of the structure, in a curve of preferably one hundred and eighty degrees and of a diameter which is preferably equal to the full breadth of the structure,—then extend in a downward course which is straight but oblique with reference to the major horizontal axis of the structure, to a point at the east side of the structure close to its south end,—then trend toward the west in a curve of preferably one hundred and eighty degrees and of a diameter which is preferably equal to the full breadth of the structure,—then extend in a downward course which is straight, but oblique with reference to the major horizontal axis of the structure, to a point at the east side of the structure in the immediate vicinity of the north end, and so on, with a predetermined gradual downward inclination from the highest point hereinbefore mentioned, to the terminus at the base, marked T. The ways are so arranged that the starting point and the terminus are upon a common level and side by side, in order that those

in control of the apparatus may at the same time oversee and control both the departing and the arriving toboggans. The toboggans employed may, as stated, be of any preferred structure.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A toboggan slide way the intermediate courses or stretches of which are inclined and possess in plan the form of a figure 8, and the terminals of which are disposed side by side upon a practically common lower or ground level,—substantially as set forth.

2. A toboggan slide way consisting of intermediate courses or stretches which are ele-

vated and inclined from a high point to the ground and disposed in reverse curves which form in plan a series of figures 8 overlying and continuous of each other, and the terminals of which exist side by side upon a practically common lower or ground level,—substantially as set forth.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 12th day of March, A. D. 1894.

E. JOY MORRIS.

In presence of—

J. BONSALE TAYLOR,
F. NORMAN DIXON.

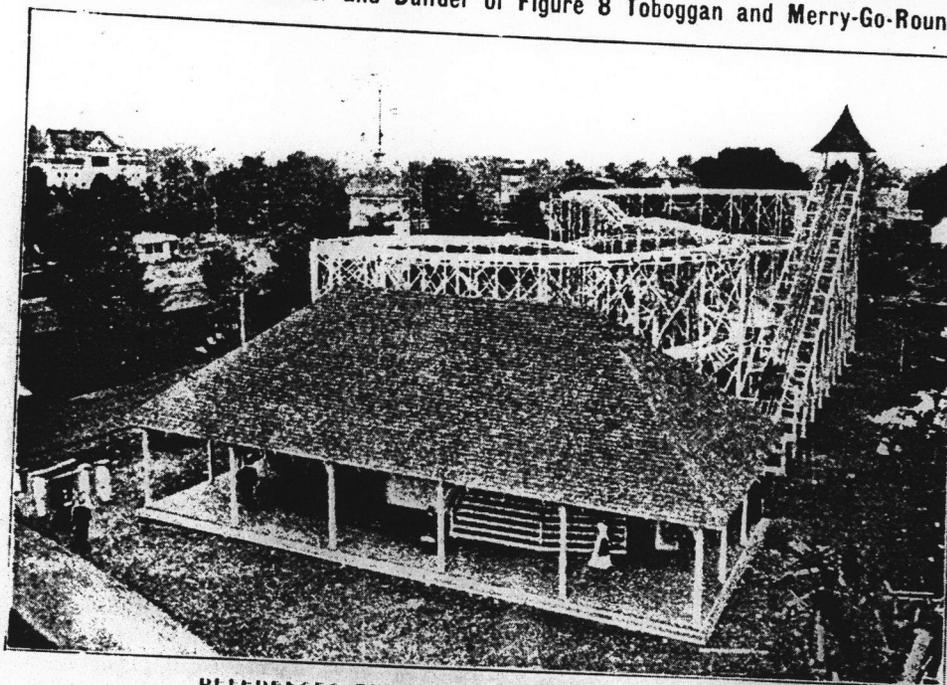
CHARLES J. JACQUES, JR.
COLLECTION

"NUF CED" 1904

E. JOY MORRIS

902 Walnut St., PHILADELPHIA, PA
Factory and Warerooms:
1416-20 Callowhill St., PHILADELPHIA, PA

Original Inventor, Patentee, and Builder of Figure 8 Toboggan and Merry-Go-Rounds

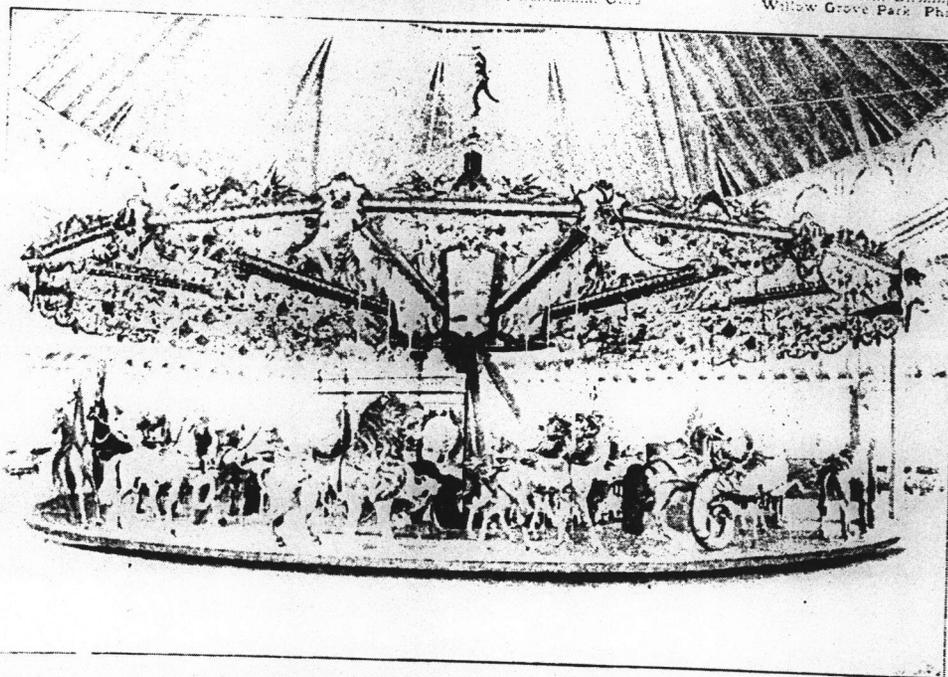


REFERENCES THE FOLLOWING PARKS EQUIPPED:

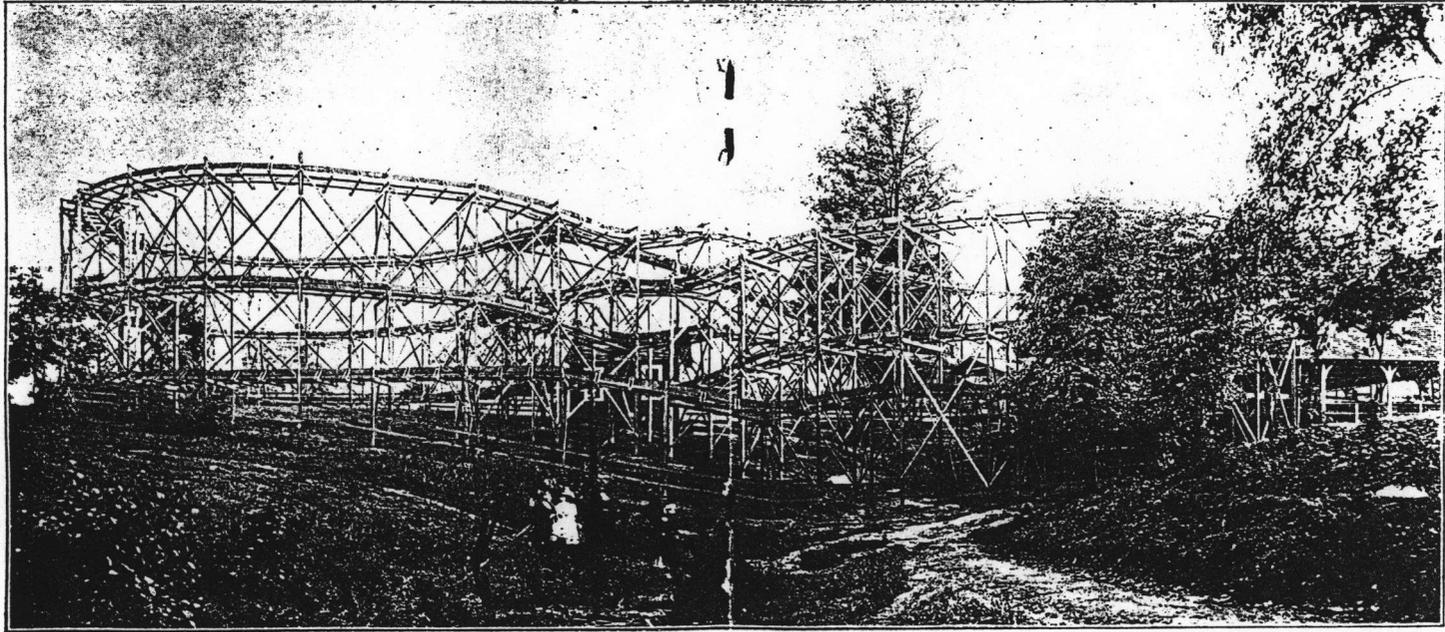
Rock Springs, Chester, W. Va.
Exposition Park, Pittsburgh, Pa.
Lakemont Park, Altoona, Pa.
Kennywood Park, Pittsburgh, Pa.
Glympia Park, Versailles, Pa.
Gentagey Park, Columbus, O.

Cleron Park, Jamestown, N. Y.
Alameda Park, Butler, Pa.
Chutes Park, Chicago, Ill.
San Eouel Park, Chicago, Ill.
Winnona Lake, Indiana.
Woodland Beach Park, Ashtabula, Ohio

Sharpshooters Park, Chicago, Ill.
Alleghippa Park, Alleghippa, Pa.
Fairview Park, Dayton, Ohio
Spring Grove Park, Springfield, O.
East Lake Park, Birmingham, Ala.
Willow Grove Park, Phila., Pa.



18



LEAP-THE-DIPS
PHOTO. # 7

Unscanned Materials

The following documents from this file were not scanned:

- Schwabe, L. (2000). Shake, Rattle, and Roll. *Preservation, July/August*, 44-51.