

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Portland Zoo Railway Historic District

other names/site number The Washington Park and Zoo Railroad (WP&ZRy)

Name of Multiple Property Listing N/A

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

2. Location

street & number 4001 SW Canyon Road not for publication

city or town Portland vicinity

state Oregon code OR county Multnomah code 051 zip code 97221

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this X nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property ___ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance: ___ national X statewide ___ local

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

Signature of certifying official/Title: Deputy State Historic Preservation Officer Date _____

Oregon State Historic Preservation Office
State or Federal agency/bureau or Tribal Government

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

Signature of commenting official Date _____

Title _____ State or Federal agency/bureau or Tribal Government

4. 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 the Keeper Date of Action _____

Portland Zoo Railway Historic District
 Name of Property

Multnomah Co., OR
 County and State

5. Classification

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

- private
- public - Local
- public - State
- public - Federal

Category of Property
 (Check only **one** box.)

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

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

Contributing	Noncontributing	
2	1	buildings
		site
1	2	structure
6	3	object
9	6	Total

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
 (Enter categories from instructions.)

RECREATION AND CULTURE: Fair

TRANSPORTATION: Railroad

Current Functions
 (Enter categories from instructions.)

RECREATION AND CULTURE: Fair

TRANSPORTATION: Railroad

7. Description

Architectural Classification
 (Enter categories from instructions.)

OTHER: Railroad

Materials
 (Enter categories from instructions.)

foundation: CONCRETE

walls: WOOD

roof: ASPHALT

other: _____

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity).

Summary Paragraph

The Portland Zoo Railway Historic District (PZRy) is a 5/8th scale railroad designed and built by professional train designers and railroad engineers, and established as a recreational line for the entertainment of both children and adults in the post-war era of the 1950s.¹ Constructed in the west hills of Portland in 1958, the railway also transports people between the Oregon Zoo and the Washington Park Station overlooking the International Rose Test Garden. Between 1960 and 2013 the track was 2.5 miles long, currently it is 1.56 miles in length, though almost a mile of track (.96 mile) is now unused due to deferred maintenance. Currently, the railroad is a single structural system consisting of three loops connected by one and one-half miles of track built on a series of grades that extend from a station in the zoo, past animal habitats, and into a forest on an east-facing hillside in Washington Park, where passengers travel through an overstory canopy made up of 150+ year old Douglas fir and western red cedar. The acreage of the nominated district is approximately five acres, and ranges in elevation from 674 to 705 feet AMSL. The first loop of railroad had been built and trains were running one year before the zoo opened, and ticket proceeds (as intended) helped fund the construction of more rail and the construction of zoo infrastructure. The railroad is considered here as a separate but integral entity of the zoo and Washington Park. There are fifteen total resources in the historic district. Nine are contributing and six are noncontributing. There are two contributing buildings, which are the Washington Park Station (1958), and the tunnel-roundhouse complex (1959). The railroad is the one contributing structure with its 30" gauge track, ties, switches, and gravel ballast on a 15' wide grade. The six contributing objects are the rolling stock and are as follows: 1) the diesel-powered *Zooliner* locomotive and its five cars that were built in the streamlined modern '*Aerotrain*' design in 1958; 2) the steam-powered *Oregon* Locomotive No. 1 and its four passenger cars, (1959); 3) the much-remodeled diesel-powered *Oregon Express* locomotive 5 (1959) and three cars; 4) locomotive No. 3 (1929), known as the *Work Train* and the cars it pulls, which are a side-dump car, a rock car, and two flat cars; 5) Locomotive No. 6 (1938) is also used for work and track maintenance and pulls two passenger coaches; 6) the gas-powered speeder donated by the Southern Pacific Railroad in 1961. The two non-contributing structures include a 1,200-gallon water tank elevated on a tower that feeds water to the steam engine, which replaced an earlier water tank and tower and is identical with the original and in the same location, and non-contributing trestle built in 2014 where a previous trestle was located. The new station (2016) at the main zoo terminal is the non-contributing building, though the train platform is original. The three non-contributing objects include a handcar (1996), a generator platform car (ca. 2000), and a push car that was used in the railroad's construction in 1958. The main character-defining elements of the railway are its scale, forested setting, and the classic trains designed to appeal to children. The apogee of the character-defining elements of the rolling stock are found in the space-age streamlining of the gleaming aluminum body of the *Zooliner* and the fully rendered details (diamond smoke stack, cow catcher, polished brass, red paint, gold leaf lettering, bells, and whistles) of the steam locomotive *Oregon*. While there have been changes to the PZRy over the years, particularly within the portion that passes through the Oregon Zoo, the PZRy possesses integrity of design, materials, setting, workmanship, and feeling because it is in its original setting, and retains its original rolling stock, track, tunnel-roundhouse complex, and one of the two original station buildings. The tracks, ballast, and grade of the PZRy are in good condition, though there is deferred maintenance on the Washington Park portion of the line.

¹ Miller, Edward, *Miles of Smiles: Washington Park and Zoo Railroad, A Triumph of Soot, Noise and Laughter*, unpublished manuscript 1998:20. (Hereafter cited as Miller 1998).

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

Narrative Description

Location and Setting

The PZRy is headquartered in the Oregon Zoo and its right-of-way extends outside the zoo through a forested part of the Hoyt Arboretum to a station in Washington Park. Both the Hoyt Arboretum and Washington Park are municipal parks owned by the City of Portland. The Oregon Zoo is a publicly owned zoo managed by the regional government known as Metro. The setting is in the West Hills area of Portland which overlooks downtown Portland and the Cascade Mountains beyond. When the PZRy was completed it was located on what was then the western edge of the City of Portland city and the zoo (then known as the Portland Zoological Gardens) was under construction when the first phase of the railroad opened for business. The zoo occupies 64 acres and was constructed on a former golf course that bordered the 321-acre Hoyt Arboretum. The arboretum borders Washington Park, which has approximately 241 acres of woods, lawn, and landscaped gardens.² The rail line travels through the zoo and out into the forested arboretum to a station in Washington Park, near the International Rose Test Gardens (see Figure 2).

The railroad was planned to provide views of animals in the zoo, and the wooded landscapes in the arboretum and Washington Park. The Washington Park Station is on a hillside overlooking the International Rose Test Garden, as well as the cityscape of downtown Portland and the Cascade Mountains beyond. The road, landscaping, and structures were built to ensure that the near and far views were pleasing to the eye of the rider in the train, as well as to the viewer observing the trains.

General Description of the District

The 1.56-mile ride begins at the zoo station, where passengers board the train by stepping out from under the station canopy onto the train from a concrete slab-on-grade platform. As it pulls away from the station, the train moves past the water tower with its water tank that is used for the steam engine, continues immediately past a wigwag signal that guards an access road, and rolls through the zoo in a northeast direction for about 1200-ft.³ It passes the farm animal exhibit to a railroad crossing that features a paired set of red-striped boom gate arms and crossbucks on masts set with flashing red lights and a warning bell. The ride continues on past the condor exhibit, along the elephant habitat, to the steel railroad trestle where the track loops and the train either goes on to the Washington Park Station or continues around the loop to return back to the zoo station. On this loop the passengers have a view of the locomotive from the passenger coaches. Heading northeast toward the Washington Park Station, the train enters into a forest, going in a straight line for approximately 1000'. This length of straight track fulfilled the suggestion of the director of the Lincoln Park Zoo in Chicago who told the PZRy designers that "a good long track layout that disappears from view and is designed by railroad engineers" would be visually esthetic.⁴ Siding 1 is located along this long portion of track. There are three ~300' long passing sidings on the Washington Park route that were added in 1961, 1962, and 1963 to permit simultaneous operation of four trains (see Figure 5). Two significant embankments are on the Washington Park section span drainages and were designed to maintain the grade. One embankment is at Texas Gulch, and the next on the 'S' curve. Both embankments are constructed with layers of cribbing and compacted fill and have culverts to maintain drainage.⁵ At the loop at Washington Park the train bears southeast and comes out of the forest just before stopping at the station platform that overlooks the International Rose Test Garden. The station platform is a concrete slab-on-grade. Once it leaves the station, the train finishes the

² Prior to the golf course the area was part of the Multnomah County Poor Farm.

³ A glossary of railroad terms is in the additional documentation section.

⁴ Joseph F. Matarrese to Edward Miller, 7/18/1955. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

⁵ Ed Miller to Harry Buckley et al, 9/27/1958. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

loop, and continues back on the same track. Just before the train arrives at the Zoo Station, the train is switched to the 180-ft long semicircular tunnel. As it exits it arrives at the platform, the place of beginning.

The locomotives are dispatched by radiotelephone. If more than one train is running, the trains are in communication with each other and the two stations. Additionally, each train has an intercom system for the engineer to narrate the ride to the passengers.

Within the zoo, the architect designed the railroad to be a visually important element to see within the landscape, as well as for the views from the train to be significant. The crookedness of the line on the Washington Park section is considered pleasing because it was a “snaky train where the riders in the front portions of the train could see the tail of the train.”⁶ The most important viewshed is on the Washington Park route, where the route affords views of the forested setting and then, when the train emerged from the forest to the Washington Park Station, in view are Mt. St. Helens, the large rose garden that is iconic to Portland (currently named the International Rose Test Garden), and the downtown area of Portland.

Alterations: The viewshed within the zoo has changed with the construction of new animal exhibits, the removal of a portion of the track which included removal of the viaduct that overlooked the bear enclosures (see Figure 25). The viaduct has been dismantled for zoo improvement projects, but passengers are treated to views of several enclosures, including the elephants, condors, and farm animal exhibits. New viewing opportunities have been added, such as a view of the large pasture, pool, and enclosure for the elephants. The viewshed in the forest is intact (see Photos 13-14), and the viewshed of the Cascade mountains, rose garden, and downtown Portland is also intact (though Mt. St. Helens has lost some elevation). The view could be improved with the removal of some trees. The loss of the view of the bear enclosures, and the addition of views of new exhibits does not diminish the district’s integrity. Zoos are designed to be dynamic and subject to change as tastes and scientific methods of keeping animals change.

Contributing Structures

The Railroad

There are approximately 1.56 miles of 30" gauge track built on a series of grades and three loops through the Oregon Zoo and Washington Park (see figures 3-5). The character-defining features of the railroad include the railroad (tracks, ballast, grade), a pedestrian viaduct, a tunnel, a trestle, three ~300' long sidetracks, signals and crossings, and two major embankments. The PZRy was built by railroad engineers and locomotive designers and is significant for its engineering because it was typical of commercial railroads but atypical of theme park and zoo railroads, as shall be described later in this document.

The grade and design resemble larger railroads built in the northwest except to a smaller scale. The rail line is constructed on 40 lb. American Society of Civil Engineer-certified 30' gauge rails. Rails of this gauge are designed to operate on steeper rail lines, with sharper turns such as are found in the Cascade Mountains which was terrain the designers knew well. The grade is clear of all trees and vegetation to a width of 15', except in steeper areas where there are fills or cuts. The railroad is designed by railroad engineers to adhere to the standards of commercial railroad construction. For example, during railroad construction stumps in the cuts were removed under the railroad proper, in fill areas stumps were cut even with the ground so as not to disturb or loosen banks. Cuts and fills are as small as engineering allows in order to minimize ground disturbance both for esthetic reasons and for track stability. Cribbing is used to stabilize the banks, and the cribbing material is creosoted fir not less than 6' or larger than 10'

⁶ Miller, 1998:46.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

lengths.⁷ Near the Washington Park station new cribbing has been installed on an uphill slope just past the station. The material used is heavy fir timbers which are in-kind with the original but set in a stepped configuration anchored by gravel ballast held in chain link nets.

The sub-base of the roadbed is about 4" of pit run, packed and graded to a smooth surface approximately 9' wide. Drainage ditches drain away water and protect the road grade, and several culverts are present under the roadbed that drain water downslope.⁸ The ballast is crushed rock laid at least 6" deep under the ties. The ties are creosoted and spaced 2' on tangents, 1'- 6" on curves. The tie plates are 3/8" x 6" x 8 1/2" with the shoulder punched for the size of tie. Spikes are either 4" or 4 1/2". The ties are 5' 4" in length, and tie plates are placed under all the rails to add permanent protection. The furnishings on the rail line include switches, frogs, a crossing signal with red-and-white-striped boom gates that lower when a train comes by, and one wigwag signal.

Alterations: The integrity of the railroad grade is good. The gauge of the steel track, the ballast and roadbed ballast of most of the original route is retained, so there is good integrity of location, design, setting, materials, workmanship, feeling, and association. When it first operated in 1958 the railroad was about 1/2 mile long and growing. Construction continued and in 1959 the line extended to Washington Park for a total length of almost two miles. In 1961 a wooden trestle was constructed as a loop on the edge of the zoo for a shorter ride that did not include Washington Park. In 1962 the track alignment was extended, making a circuit around the interior of the zoo. This was called the Red Line, and the Washington Park route was labeled the Green Line. In 1968 the lines were consolidated into one ride, and the original wooden trestle was discontinued, though it was used for train storage for a number of years and in 2014 it was replaced with a new trestle. In 2013 the southern-most half-mile of track within the zoo was removed, and in 2014 a new alignment in the northernmost area of the zoo was completed that includes a new steel trestle which is built exactly where the original wood trestle had stood.⁹ (see figure 32) Though normal railroad maintenance activities have been suspended on the Washington Park grade since 2014, the condition of the grade is generally good due in large part to erosion control features that were part of the original construction, and it retains its integrity of design, setting, workmanship, and feeling.

The railway design of the new portion and trestle retains the 15' wide roadway, with a 4" layer of well-packed pit run, a 6" layer of gravel ballast, creosote-coated wood railroad ties spaced 2' on tangents, and 1'- 6" on curves. The rails are set in a 30" gauge and hardware consisting of spikes, frogs, and switches conform to the original design specifications. The setting of the PZRY and the materials, workmanship, feeling, and association are retained.

Contributing Buildings

Tunnel-Roundhouse Complex

This building is built bunker style. The roundhouse is constructed of thick poured-in-place concrete foundation and walls, ceiled over with precast slabs, and then the whole was covered with fill on top to approximate a hill. The tunnel is a semicircular tunnel measuring 185' in length on a 75' radius and constructed of precast section units joined to slabs cantilevered from the center slab span (see Photo 2 and Figures 8-9). The tunnel portals are veneered with rock masonry, which break back into rockeries as part of the landscape. The floor of the tunnel is of regular roadbed construction. As planned, it was 11'-8" high in order to provide room for the stack on the steam engine.

⁷ H. Ketell to Zoo Commission, Letter RE Zoo Liner Railroad, 6/3/1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

⁸ James & Yost, Inc. General Copntractors to Ormond Bean, Bureau of Parks and Public Recreation, *Specifications; Portland Zoo Railroad From New Zoo to Washington Park*, 8/13/1958. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

⁹ *Statesman Journal* (Salem), 12/24/2014:D2.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

The Tunnel-Roundhouse complex is a long semi-circular volume divided into two sides (See Figure 6). The outer most volume is the tunnel (which is also used for night sheltering). The inside volume houses the machine shop and office, and has a single track entering this space to bring trains in for maintenance. This track was designed for trains to back into rather than go in headfirst because it was preferable to back into the barn with the locomotives heading out so the need for ventilation is minimized. This space has a machine shop, office, water closet, and a room for some of the zoo's electrical panels. There are lockers for tools, oil, grease, and a compressor.¹⁰ The integrity of the Tunnel-Roundhouse is good as it retains integrity of location, design, setting, materials, workmanship, feeling, and association.

Alterations: In 2014 one of the storage rooms was converted to an electrical panel room. The tunnel and roundhouse are essentially as constructed and in good condition.

Washington Park Station

Stylistically the Washington Park Station evokes historic train stations in 'small town' America as expressed in the long rectangular one-story volume, board and batten siding, broad overhanging gabled roof, and prominent, centrally located tower set with a flagpole. This may be characterized as a revival of the Second Empire vernacular due to the tower with its original mansard roof, and the long rectangular massing of the volume.

The wood-framed roof structure is supported by ten robust glulam arches which are commonly found in the Northwest Regional Style of architecture (see Figure 16 and Photos 8-12). The building was designed by local commercial artist Mo Martindale using glulams donated by Ward Mayer, of Timber Structures, Inc.¹¹ The use of glulam arches as the expressed structural system was promoted and popularized in the 1950s and 1960s by Ward Mayer, who was the lead manufacturer of glulam wood products in the Northwest. The arches are set into metal brackets attached to the concrete slab floor. The rectangular bases of the glulams measure 6" x 3". On the façade elevation and the south (back) elevations, there are three 1/1 double-hung sash windows with full shutters. The main entry is a single panel door.

Alterations: The building was first constructed at the Oregon Centennial Exposition but was built to be moved to Washington Park after the exposition. After the exposition ended, the building was reassembled in 1961 at its permanent location at Washington Park. Originally the building was just a shelter with no enclosed space except for the tower base. When the building was moved it was shortened by two bays (glulams) to its present 75' length, and four of the bays were enclosed. Originally the building measured about 90' long x 20' wide. A scalloped bargeboard at the eave line was removed when the shingled roof was replaced with a raised-seam metal roof around 1990. The original mansard tower roof has been covered over with panels, which changed the tower roof configuration to a truncated pyramid (though under these panels the original mansard is present). This building is in good condition, and retains most of its original materials, the most significant of which are the fine glulam arches that are characteristic of this period of construction. Its move from the Oregon Centennial Exposition to Washington Park does not affect the integrity of the building because it was built to be placed at Washington Park, and only constructed temporarily at the exposition. The integrity of the Washington Park Station is fair as it retains integrity of location, setting, materials, workmanship, feeling, and association, though the covering of the mansard tower and the removal of the scalloped barge boards affects the character-defining elements that made the building a vernacular revival reminiscent of Second Empire architecture.

¹⁰ *For Discussion: Railroad, Car Barns, Yard and Stations*, Lawrence, Tucker, & Wallmann Architects to Bureau of Parks & Public Recreation, 4/27/1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

¹¹ "The History of the Oregon," Oregon Zoo Webpage: http://www.oregonzoo.org/AboutZoo/history_of_the_Oregon.htm

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

Contributing Rolling Stock

Oregon, Locomotive No. 1

This oil-fueled steam train was built in 1959 and is a replica of a classic American 4-4-0 (wheel arrangement) steam locomotive known as the *Reno* of the Virginia & Truckee Railroad (see Photo 15 and Figures 10, 12, and 21). From the cowcatcher to the rear coupler of the tender, the engine is 33'- 4" long, and each car is 23'- 1" long. It weighs about eight tons. The top of the diamond-stack chimney is 9' above grade. It is a classic style iron-horse steam engine with a boiler tank painted jet black except for the bright brass hoops that encircle the boiler. The cab and the tender are painted bright red with bright gold leaf paintwork. 'Washington Park & Zoo Railway' is painted on the side of the tender and on the *Oregon* cab. The cab has a gabled roof with a projecting eave over the back deck. On each side of the cab are paired sliding glass windows big enough for the engineer to lean out to see the operation. Large rearview mirrors attach to the outside. The steam dome on the boiler is a cylindrical brass tank set within a red-painted base and lid. A cluster of brass steam whistles project from this dome. A smaller but matching sand dome is set forward of the steam dome. Two small brass tanks at wheel level are for the airbrakes. The cowcatcher is also red and is attached to a projecting structure that can carry flags on special occasions. A lantern-like headlight is set on the front of the engine boiler. The wheels are painted red to match and have the typical steam engine wheels connected with link rods and main rods.

The locomotive and tender were built by the Oregon Locomotive Works in 1959, and the cars were constructed by H. Hirschberger Co. that same year. The four original train cars are inventoried as cars 101-104. They were designed to resemble the early twentieth century open-air excursion cars of the Portland Electric Transit Company.¹² They feature a domed roof with transom lights. Each car has a step rail to access the swinging doors. The body panels are constructed in a lattice of horizontal boards attached to a vertical board framework.

Alterations: The *Oregon* steam engine was refurbished and repowered, and its body overhauled in 2014. A new cow catcher was installed with a coupling device so that the engine can be towed. The cars have been maintained and are essentially as built. The engine's frame needed repair several times during the first twenty years it operated. A new frame was built in 1982. In 1996 the zoo railroad shop made and installed new steel tires that were shrunk onto the driving wheels. The shop also fabricated new rod and axle bearings.¹³ Also installed that year were the "brass flag holders that mount on the headlight board and the brass handrail below the headlight, both of which adorned the original *Reno*, but which had hitherto not been installed on our locomotive."¹⁴ The changes to this engine and train cars are minimal, and the *Oregon* steam train retains integrity of design, materials, workmanship, and feeling.

Zooliner, Locomotive No. 2

The *Zooliner* was built for the zoo in 1958 (see Figures 10-11 and Photo 16). The character-defining feature is its space age streamlined body. It was designed after the futuristic *Aerotrain* built by General Motors in the mid-1950s. Trains of this design were called 'streamliners' and this one is diesel-powered. The finished *Zooliner* design differed somewhat from the *Aerotrain*, most notably the nose of the train is more rounded, and the grill and headlight assembly is more simplified. Additionally, the back coach of the *Zooliner* does not have fins. The *Zooliner* exterior is gleaming aluminum with a sweeping spear side strip in bright red painted on each side. *Zooliner* is printed on the sides of the locomotive in slanting capital letters. The locomotive shape is curvilinear. The cab has a rounded nose, a swept wheel skirt, and a low-rounded cab roof under which wraps a windshield. The windshield is a modified windshield from a 1956 Buick Roadmaster. The back coach has a wrap-around back window. The *Zooliner* locomotive is 26'- 5" long, 10' high. The newest coach is inventory number 201, named Miadi, is 23'-1" long, and cars 202-205

¹² Miller 1998:66.

¹³ The History of the *Oregon*," Oregon Zoo webpage: http://www.oregonzoo.org/AboutZoo/history_of_the_Oregon.htm

¹⁴ Ibid.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

are 22'- 9" long and 8' high. The cars are aluminum bodied, and feature sky dome windows above for viewing the trees and are called 'skydomer' passenger cars. Each car has open-air window openings and is accessed by swinging compartment doors. Each car has "Washington Park & Zoo Railway" in slanted block lettering as well as its name painted on the transom. These are as follows: Caesar (202), Sheba (203), Zero (204), and Rosy (205). They were named after important animals who lived at the zoo. The Miadi was added in the 1990s and is not as detailed as the originals. The doors panels of the original cars have horizontally corrugated panels and each car is painted with the logo on the foremost door. The forward-facing benches in the skydomer cars are aluminum and can accommodate three adults or four kids. In total the train can carry 99 adults or 132 kids. The entire coupled train with the original four coaches is 138' long.

The locomotive weighs 13,000 pounds and provides 165 horsepower to eight driving wheels through a hydraulic-type torque converter transmission. A governor holds the train to a 12-mph maximum. In 2014 a new Perkins Tier 4i engine replaced the original Cummins engine. The drive is torque multiplication through three speeds forward and three speeds reverse, and there is a cut out clutch parking brake and forward and aft drop box drive.¹⁵ The brakes are pneumatic.

Alterations: The *Zooliner* was refurbished and repowered in 2014. The end car on the *Zooliner* was modified in 2005 to resemble a dome car to accommodate an ADA accessible wheelchair lift. The lift does not destroy or affect the historic significance or design integrity of the train and is in concordance with the whole. A new passenger coach was added in the 1990s and is almost identical but distinguishable from the original coaches because the aluminum metal cladding is simpler. Overall this train is in excellent original condition and it retains integrity of location, design, setting, materials, workmanship, feeling, and association. The character-defining streamlining features are intact.

Work Train, Locomotive No. 3, formerly known as the Fire-Control train

This is a yard-type 'maintenance-of-way-locomotive' characterized by its minimal detailing and robust rectangularly-shaped engine housing. (Yard-type engines were not built for speed, and are characterized by a boxy shape and designed for a utilitarian use in an industrial setting). There is an extended platform on the front where someone can stand. A coupler projects from the forward truck. The cab is a simple construction with a divided front window, rounded roof, and paneled door. A bell is set on the engine box, and a siren is attached to the front transom of the cab. This locomotive is equipped with air brakes and powered by a 95 horsepower Ford 6-cylinder passenger car engine. The locomotive body is painted red with black trucks and frame. This locomotive is available for use as a spare to haul any and all Portland Zoo Railroad passenger trains. According to a brass plaque on the locomotive, the *Work Train* was built in 1929 by Baldwin Locomotives.

The locomotive and two flat cars were obtained from surplus rail equipment owned by the Weyerhaeuser plant at Longview, Washington in 1959. The surplus locomotive was refurbished that year, and now has a body measuring 15'- 8" long. This locomotive is the work train and pulls a Rock Car (1958) and a Side-Dump car and the two flat cars. The age of the side-dump car is unknown, but it was obtained used from the Northern Pacific Terminal Railroad Company. The total length of the train coupled is 83'-11".

Alterations: Locomotive No. 3. was formerly known as the Fire-Control train. It was obtained from Weyerhaeuser in 1959 along with two cars (inventory numbers 301 and 302). As originally equipped, a water tank/pump on one of the cars and a caboose was built on the other for a coupled length of just over 51'. The fire-control train was on call to fight fires in the forested region of Washington Park and was recorded as an official piece of equipment on the Portland Fire Department roster of vehicles and for many years was kept in working order to fight any fires that might develop in the forest along the

¹⁵ E. B. Clarke to Harry Buckley, Superintendent of Parks, 5/ 23/1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

Washington Park line.¹⁶ In the 1990s the water tank and pump and the caboose body were removed from the trucks, and these are now flat cars. This locomotive retains its original body design. The locomotive and the cars of this train retain integrity of location, function, feeling, and materials. The locomotive retains its character-defining boxy design.

Oregon Express, Locomotive No. 5, (formerly called the *Casey Pioneer*, *Circus Train*, *Astroliner*, and *Orient Express*)

The diesel-powered *Oregon Express* was constructed by Milwaukee Locomotive Company in the 1940s and donated to the zoo by Portland Machinery Company. The locomotive is a diesel-powered eight-wheeled locomotive that measures 22'-11" long. It pulls the black 502, and 501 which has a wheelchair lift (see Figure 22), and the maroon colored grass-roofed gondola carriages 701 and 702, which are painted maroon to match the locomotive (see Photo 18 and Figure 22). These carriages have forward facing bench seats. The bodyworks of the cars and locomotive are sheet metal. The locomotive has louvered vents on the sides. An exhaust muffler is situated on engine hood, and a horn is set on the cab roof. The cab has a divided front window, a door on each side, and a bench seat behind the engineer. A simple pipe connected to the frame is set as running board and step; the front of the frame extends out supporting a platform large enough for a person to stand. A bell is mounted on a simple structure above the platform and a coupler extends out from the front of the train frame.

Alterations: The body of this locomotive has been reconfigured several times. It was first designed as a *Circus Train* and it pulled four flat cars mounted with seats that were designed to look like animal cages. This train body was designed by Ralf Ritenour of the Home Building Plan Service and his draftsmen worked for free.¹⁷ The train cars were fabricated in part from base frames and wheels from sawmill trains that were found in the Northern Pacific Terminal Company bone yard, and other scrap and material from various railroad machine shops. In 1962 it was given a fresh paint and used only on the zoo loop track for the summer and did not go to Washington Park. Waldo Hirschberger and George Burton built two new gondola cars and two of the original cars received new trucks built by the zoo machine shop.¹⁸ A new 200-horsepower General Motors gas engine was installed in 1970 and the locomotive got a new streamlined body, and it was then called the *Astroliner*. In 1989 it was again refurbished, made even more streamlined, and renamed the *Orient Express* because it transported people to the Washington Park Station adjacent to the Portland Japanese Garden, which had opened for year-around admission in 1981.¹⁹ The nose of the locomotive was extended, and it was equipped with a bell, a three-part horn on the roof, center-mounted headlights, and a coat of blue paint with gold striping. It is now painted maroon. This train does not retain its original body design but retains integrity of location, function, feeling, and frame materials.

Locomotive No. 6

No. 6 is a yard-type locomotive that is a gasoline-powered industrial locomotive with a standard clutch transmission with a mechanical drive train (see Figure 26). The locomotive was built in 1938 by the Whitcomb Locomotive Company, and donated by Weyerhaeuser Corporation, where it was used for moving lumber. The engine is in a rectilinear-shaped sheet metal housing with louvered vents on each side. The cab is wider than the engine and has windows all around, a sliding door, and paneled sides. The front and rear of the locomotive are striped red and black, the engine hood box is painted black, and the cab is black with red trim. The upper hood panel is signed with 'Washington Park & Zoo Ry' and the doors are painted with the number '6' in gold lettering. The gearbox is connected by a short drive shaft to two drive chains. The front axle is connected to the rear axle by a single chain, so all four wheels provide

¹⁶ The fire-control train was recorded as an official piece of equipment on the Portland Fire Department roster of vehicles and was kept in working order to fight any fires that might develop in the forest along the Washington Park line.

¹⁷ Ibid.

¹⁸ Miller, 1998:88.

¹⁹ Miller 1998:91.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

power. This locomotive is not normally used for passenger service, though on occasion it is used to pull passenger cars. More often it is used for track maintenance and switching.

Alterations: The original engine has been replaced with a GMC 478 that develops 254 horsepower. The locomotive is not in working order, though it retains its design, materials, association, feeling, and workmanship.

Miscellaneous Coaches

Cars 503 and 504 are open-air carriages with steel panel sides, bench seats, and a domed roof supported by simple steel posts (see Figure 30). They were built by H. Hirschberger in 1962. These are painted blue and the logo of the railroad is painted on the sides of the cars, and 'Washington Park & Zoo Ry' is painted on the transoms of each car. These are spare cars added to the other trains as needed to handle more passengers. They are in fair condition, and retain their integrity of setting, materials, workmanship, feeling, and association.

Speeder

The Speeder is maintenance-of-way equipment and was donated by the Southern Pacific Railroad shops in Sacramento and manufactured by the Fairmount Company (see Photo 21). The manufacture date is unknown, but it is typical of Fairmount speeders manufactured between 1930 and 1960. It was re-gauged to 30" and shipped to Portland in 1961 for presentation by the then-superintendent of the Portland division of Southern Pacific, A. W. Kilborn.²⁰

Alterations: The Speeder is in good condition, and it was recently used in the television show *Grimm*, and repainted with "Western Cascades Railroad," which is a fictional railroad. It retains integrity of setting, materials, workmanship, feeling, and association.

Non-Contributing

Zoo Railroad Station

The current Zoo Railroad Station was constructed in 2016 and replaced the original station, which was an open-air shelter with a green plastic translucent roof supported with a system of posts and glulam arches. The new shelter features a low-pitched shed roof covered with solar panels that generate enough electrical energy to fully run the station, roundhouse complex, and education center facilities (see Photo 1). The shelter is supported by steel posts supporting exposed robust natural wood rafters that recall the natural wood glulam arches that supported the original green translucent plastic panel roof. Galvanized metal gates guide passengers to the platform. The stationmaster booth is situated under the shelter, and a ticket booth is at the entry to the station. Both the ticket booth and stationmaster booths are clad in natural wood siding of varnished knotty pine boards.

The shelter replacement is in the approximate location as the previous open-air structure. This new structure is not an obtrusive introduced element, but rather a well-incorporated structure with natural wood ceiling and walls that reflect back to the original glulam members.

Water Tank & Tower

A 1200-gallon capacity cylindrical and stave constructed water tank rests on a wooden tower and a poured concrete slab (see Photo 21). Stylistically it is a typical steam-engine era (mid 1800s to early 1900s) water tank tower. Its height is about 18' at the peak of the conical roof. This tank and tower replaced the original, but it is of the same construction as the original. It is constructed of cedar wood staves encircled with seven wrought iron hoops and the roof is made up of five metal panels in simple frames, and the whole is topped with a simple finial. The tank is supported by a truss constructed of

²⁰ Miller 1998: 88-89.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

robust lumber members and cross bracings. The waterspout juts out over the tracks to access the steam engine. It is gravity fed.

Alterations: This tank is as constructed in 1972. It has been maintained and is in good original condition and retains its integrity of design, location, and function.

Train Trestle

The train trestle is an imposing 20' high, 240' long curved trestle built on a 75' radius (see Photo 5). The steel framed structure consists of three steel bents, steel deck base, and a steel handrail. The tracks are centered within a wood-surfaced deck. The trestle is a loop and was built in the approximate location of the original wood trestle that was used between 1962 and 1968, then used for train storage. It was torn down in 2013. The new trestle was engineered by Equilibrium Engineers LLC in 2014.

Rolling Stock

Non-contributing rolling stock include a handcar that was built in 1996. In ca. 2000 a generator platform on wheels was constructed out of parts and used to carry a gas-operated generator for track maintenance. A push car is also part of the equipment, and the date of construction is unknown.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

8. Statement of Significance

Applicable National Register Criteria

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

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A Owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance

(Enter categories from instructions.)

COMMUNITY PLANNING AND DEVELOPMENT

ENGINEERING

ENTERTAINMENT/RECREATION

Period of Significance

1958-1968

Significant Dates

1958, The Railway began operation

1961, Completion of the Washington Park Station

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation (if applicable)

N/A

Architect/Builder

Lawrence, Tucker & Wallmann, Architects

Period of Significance (justification)

The period of significance begins in 1958 when the first train ran on the railroad and ends in 1968, which is the year when the Red Line (the Zoo Loop) and the Green Line (Washington Park route) were combined into one continuous ride, and only one ticket was needed. Prior to 1968 the operation was split into two rides, and riders had a choice to buy tickets to the Green Line or the Red line.

Criteria Considerations (explanation, if necessary)

N/A

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations).

The PZRY is nominated at the Statewide level of significance under Criterion A, in the areas of Community Planning and Development and Entertainment/Recreation. The PZRY is also nominated at the Statewide level of significance under Criterion C, in the area of Engineering. The period of significance begins in 1958 when the first train ran on the railroad and ends in 1968 when the two original branches of the railroad were combined into one ride. Significant under Criterion A for Community Planning and Development, the PZRY is the physical manifestation of a one-of-a-kind state-wide cooperative effort of over twenty-five thousand people that has made a lasting and significant contribution to the broad patterns of Oregon history. Parts of the railroad were developed as part of the celebration of the centennial of Oregon's statehood, where the trains were recreational rides at Oregon's Centennial celebration. Therefore, as the trains of the PZRY continue to entertain and operate recreationally, this reflects the PZRY's significance under Criterion A in the area of Entertainment and Recreation. The PZRY is also significant under Criterion C because it embodies the distinctive characteristics of a type and period, as it retains the majority of the physical features distinctive to post-war era recreation railroads present in the United States built to entertain the children born after the war. The PZRY was engineered, designed, and built by professional railroad engineers and train designers, and is significant as a small-scaled example of railroad and train engineering. Character-defining features include the original rolling stock with fully rendered details designed to appeal to children, the scenic setting, and the railroad itself with its narrow-gauge tracks, revival-styled Second Empire railroad station, and all the bells and whistles common to a railroad. The contributing buildings, structures, and rolling stock of the PZRY possess integrity of location, design, setting, materials, workmanship, feeling, and association. Within the set of all zoo and theme park railroads it is second only to the Disneyland Railroad considering integrity, route, quality and quantity of rolling stock, and route length. Walt Disney was an honorary board member of the PZRY.²¹

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Community Planning and Development

The planning began in the spring of 1951, the civic booster organization known as the City Club of Portland recommended that a new zoo be constructed that would replace the old zoo, which had become run down. Dorothy McCullough Lee, then mayor of Portland, responded by soliciting volunteers to form the Portland Zoo Commission. One of the people she contacted was Ed Miller, who wrote years later, "What could bring more fun to more people than a new zoo? The answer was obvious. Nothing could bring more zestful pleasure to more families than a replacement for the then existing zooish disaster squatting on Portland's West Hills."²² The existing zoo had been present in what is now Washington Park since 1888 when a bear was placed in a circus cage at the park. An advisory Zoo Commission was established, and the city approved funding in 1954. The architectural firm of Lawrence, Tucker, and Wallmann drafted the preliminary designs for the zoo grounds at a new location, near but not in the same location as the existing zoo.

The planning effort was also exceptional for the foresight of the city of Portland administrators who planned that the railroad operation would take in more funds annually than it took to operate, and further that these funds have provided financing for improvement projects within the zoo.²³ The personnel of the regional railroads engineered and designed the railroad itself, and much of its rolling stock, which includes a speeder and five historic trains.

²¹ Walt Disney to J. Jones, 6/3/1958. Facsimile provided to the author by Jeff Honeyman, engineer WP&Zry, Oregon Zoo.

²² Miller 1998:3.

²³ Ed Miller noted that in 1988 revenue from the railroad was \$353,161.92 and in 1989 revenue was \$404,444.60 (Miller 91-91).

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

The PZRY began operation in 1958, the cumulative effort of several years of planning, which had included the efforts not only by the City of Portland, but the initiative of the people of Oregon, as well as executives from seven regional railroads. The railroad was created for the benefit of Portland's citizens, Oregonians, and visitors.²⁴ Even before the first train moved, over 25,000 Oregonians had assisted or contributed to the effort to build the rail line, making the PZRY is an outstanding example of cooperative community planning and effort.²⁵ (See Table 2). The railroad has carried more than seven million passengers and is beloved by multi-generations of Oregonians. The PZRY is additionally significant as the only recreational railroad in the United States authorized to carry the U.S. Mail.

Building the railroad was a state-wide effort of community planning and development that took place in the context of the immediate post-war period when there was a 'baby boom' and parents were looking for recreation activities for their children. At the same time, city leaders were looking to make Portland more attractive to tourists in order to bring in revenue.

Half of the cost of the zoo railroad came from City of Portland zoo levy funds of 4-million dollars approved in May 1954. "The remainder was obtained by a bootstrap operation in which nearly 25,000 Oregonians and firms contributed labor, materials, cash, or purchased zoo railroad "stock" carrying ride coupons."²⁶ The commissioners understood that other zoos in the United States were installing zoo trains, which became popular rides and produced a funding source for these zoos. The prime mover and orchestrator of the effort to build the zoo and the railroad was Edward Miller, a newspaper executive at the *Oregonian* newspaper. Once he teamed up with John (Jack) H. Jones, manager of the Northern Pacific Terminal Company the effort gained traction.²⁷ They called together a dozen leading Seattle and Portland executives of Pacific Northwest railroads to a dinner meeting to solicit their advice and assistance to build the railroad. The support of these executives and this occasion marked the beginning of a series of cooperative gestures on the part of the railroads that served Portland that were truly generous.²⁸ Over a period of two years, the design and details of the railroad were carefully worked out. These railroad executives and experts helped the newly created Zoo Train Committee determine the type of railroad, the size of the cars, the engine, and the gauge of the track. Miller noted that the railroad is "the child of the citizens" and "it is also a grateful little brother of the big railroads."²⁹

Planning research was conducted. The committee researched other zoo railways by sending questionnaires to zookeepers across the United States and to the London Zoo. Questions included "What kind of train do you run?" and "How much it grosses each year on average, and how much it nets each year on average." The director of the Lincoln Park Zoo in Chicago responded with a lengthy letter of fifteen paragraphs of suggestions. He suggested "a good long track layout that disappears from view and is designed by railroad engineers" to ensure proper functioning. The design should be flexible enough to accommodate zoo expansion in order to minimize tear-down and reconstruction. Suggestion number thirteen described the perfect safety record of the Lincoln Park Zoo train after five years of operation, and emphasized that "A well planned installation, well supervised will prove to be a safe one. We have carried well over 3 million passengers without having had one single mishap of any kind or at any time." He cautioned against building a train that resembled "Iron Donald Ducks pulling a bunch of church pews."³⁰

The Portland Zoo Railroad organization managed the construction of the PZRY. This was a non-legal arm of the Portland Zoological Society. Jack H. Jones, manager of the Northern Pacific Terminal Company, became

²⁴ These railroad executives were: L.R. Smith, Southern Pacific Lines, D. F. Wengert, Union Pacific; Ed Vonderahe, Portland Traction Company; Jack Moore, Spokane, Portland & Settle Railway; F. L. Steinbright, Northern Pacific Railway; J. H. Jones, Northern Pacific Terminal Company. Letter from Ormand Bean, Portland City Commissioner of Finance and Parks to the above, Jan. 16, 1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

²⁵ "Portland Zoo Railway Makes a Profit," *Herald and News*, Klamath Falls, 10/1/1961:Section 2:2.

²⁶ Miller 1998:8.

²⁷ The Northern Pacific Terminal Co was jointly owned by Northern Pacific, Southern Pacific, and Union Pacific which ran Portland passenger station and surrounding yards. Jones leveraged his position with the rail companies to obtain support.

²⁸ Miller 1998:32.

²⁹ Ibid.

³⁰ Joseph F. Matarrese to Edward Miller, 7/18/1955. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

president, and the chairman of the board was Stewart H. Holbrook (recognized as one of Oregon's pivotal writers of popular history); newspaperman Edward Miller and U.S. Senator Richard Neuberger were board members.³¹ It was felt by the board that the "Portland Zoo Railroad will be one of the finest in the United States, if not the finest. It will provide a beautiful scenic ride, breathtaking adventure, and will bring considerable revenue to the new Portland Zoo."³²

The railroad was to be the golden goose for the zoo, but it needed to be maximized and not misused.³³ Ed Miller wrote many years later "To consign this splendid conveyance to a limping repetitive ride of scant eight minutes would be the equivalent of launching the Battleship Missouri in Waldon Pond."³⁴ The City of Portland owned a connecting strip of land in Hoyt Park (now Hoyt Arboretum) between the zoo and Washington Park, where the International Rose Test Gardens and tennis courts are located. Adjacent to the rose gardens, the city was planning to build a playground, amphitheater, and a Japanese garden (now realized). The addition of a rail line would help move people through the park to access the zoo, while taking traffic off of the roadways, especially SW Kingston Drive. The proposed route traveled through a forested canyon to a loop that would afford a view overlooking Portland, Mt. St. Helens, and Mt. Hood. In 1957 the director wrote "It would be very attractive and greatly desirable feature to have the Zoo train extend over to Washington Park...At no cost to the City or the Zoo Commission, engineer and survey work has been obtained from the Southern Pacific to select the best location for the roadbed on this extension."³⁵ It was reported that donations of labor and material had saved the city of Portland \$4,161, and that the city council had decided to use the savings to pay for grading and slashing work on the extension of the tracks to Washington Park.³⁶

Ormand Bean, Portland Commissioner of Finance and the Parks, was overwhelmed with the responses by the railroad companies and others who wanted to contribute materially or as volunteers to build and/or operate the railroad. On March 31, 1958 a retired locomotive engineer who had almost fifty-years' experience dropped by his office to offer his help with the operation. "[H]is offer emphasized to me the need of setting up a mode of procedure or method of clearing such offers and miscellaneous plans of the Railway Company...so that Harry Buckley and I can keep up with the parade."³⁷ One of the first events they planned to use the expertise of railroad personnel was the "Gandy Dancer Day" where track crews from the S.P. & S. Railroad and others converged on the zoo to lay track. Coffee was served by the Railway Business Women's Club. Most of the rail was laid expertly in a single day.

Locomotive No. 5, then called the *Casey Pioneer* was used to carry equipment and materials as the track was built. The locomotive was built by Milwaukee Locomotive Co. in the 1940s and was used by the Shevlin-Hixon Lumber Mill in Bend. The Northern Pacific Terminal reconditioned the engine and constructed the two cars at no cost to the zoo. It pulled the rock car and a flat car. It was donated for one year to the zoo without charge by Gordon W. Hauck, who had purchased it from the mill. He gave the zoo the option of purchasing the engine for \$1000 at the end of the year, though the engine was worth \$18,000.³⁸ The locomotive was also used for shake down runs around the new track, which were the first runs on the track done carefully to compact the ballast and test and inspect the equipment and the new track.

The grand opening of the PZRy was scheduled for June 5, 1958. The maiden run of the *Zooliner* was on May 22, 1958 and on May 25, 1958 the Rose Festival Princesses (young women chosen from each of the Portland high schools) visited the *Zooliner*.³⁹ On May 28, 1958, in a letter to Lawrence, the construction supervisor

³¹ Ibid.

³² Ibid.

³³ Zoo trains are general revenue sources for many zoos in the United States.

³⁴ Miller 1998:31

³⁵ *Report of the Railroad Committee of the Portland Zoo Commission*, 1/13/1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

³⁶ "Money Saved on Railroad to be Used," *Medford Mail Tribune*, August 10, 1958:2.

³⁷ O. Bean to Stewart H. Holbrook, Portland Zoo RR Board of Directors, 3/31/1958. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

³⁸ "Zoo Choo-Choo Nearing Completion," *The Oregonian*, March 3, 1958:27.

³⁹ "Rose Festival Princesses Gather at New Portland Zoo," *The Statesman Journal*, Salem. May 25, 1958:2.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

reported that construction was almost complete, "Yesterday afternoon contractors' small gang was dressing ballast and was nearly completed. There remained a small amount of track lining to be done, a few bolts around switches to have cotter pins and moving parts of switches to be oiled."⁴⁰ A few days later, on June 5, 1958, the diesel-powered *Zooliner* carried the first paying passengers. This was a year before the opening of the new Portland Zoological Gardens, and the money collected from the riders was set aside for the railroad. (The zoo opened on July 1, 1959). The magnificence of the *Zooliner* rolling down the track on opening day with its flags flying heralded the prosperity of this post-war era, and the ride entertained the still-young baby boomers as well as their parents. Approximately 200,000 fare-paying passengers rode the train that summer.⁴¹

The new railroad was getting national attention. On the floor of the United States Senate, while discussing juvenile delinquency, Senator Neuberger announced that Portland was building "the most elaborate and picturesque home-sized railroad yet planned anywhere in the United States," and it will be part of a "brand new zoo in the city's fir-mantled hills."⁴² In his address, he noted that actions at the grassroots level provide for healthful recreation, and combats juvenile delinquency by stimulating interest in scientific and technical developments.

In May of 1958, Stewart Holbrook, chairman of the Portland Zoo Railway, and Jack Jones sent letters to national figures inviting them to become honorary members of the Board of Directors of the railroad. The recipients included J. Edgar Hoover, director of the Federal Bureau of Investigation, and Walt Disney.⁴³ Hoover declined, but Disney said to "count me in on your Board" and commented "The plans for your project sound extremely interesting, and when carried out, should prove a real source of enjoyment for the citizens of Portland."⁴⁴ Disney enclosed a Pass on the Santa Fe & Disneyland R.R., and noted in his letter that he had made Holbrook and Jones Honorary Vice-Presidents of the Disneyland R.R.⁴⁵

The Centennial Celebration

Planning the railroad continued and the next summer, the *Zooliner* was 'borrowed' and moved to the Oregon Centennial Exposition and International Trade Fair in north Portland for the one-hundred-day exposition. This was a celebration in honor of the 100th anniversary of Oregon's statehood. The Governor of Oregon had asked the six big railroad companies to create a train-themed exhibit for the centennial. As part of the deal that allowed them to borrow the *Zooliner* from the zoo for the celebration, they agreed to return the *Zooliner* to the zoo along with new track, gravel ballast, ties, rail, spikes, and timbers, and an additional station. The agreement between the Oregon Centennial Commission and the Portland Zoological Society stipulated that 1) All receipts from operation of the railroad are to be kept as the sole and exclusive property of the Portland Zoological Society; and 2) The Portland Zoological Society will collect all fare on said railroad.⁴⁶

The deal with the railroad companies included adding another train for the zoo. This was an excellent deal. George Burton, an employee of Tektronix, formed the Oregon Locomotive Works and organized the construction of the steam engine, tender, and cars. The contract called for it to be built for \$19,500 (less any donated materials).⁴⁷ Some of the money came from a fund campaign that sold "stock" in the train for a dollar a share, with each share worth two free rides on the train when the extension was complete.⁴⁸ Northwest Marine Iron Works built the car base frames and couplers, and H. Hirschberger Sheet Metal Company fabricated the five car bodies for \$16,000, (though considerable sheet metal work was done for free by Hirschberger).

⁴⁰ G. Haselton to Lawrence, 5/29/1958. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

⁴¹ Miller 1998:20.

⁴² Richard L. Neuberger, "Community Enterprise at Grassroots Builds Portland Oreg. Zoo Railway," *Congressional Record, Proceedings and Debates of the 86th Congress, First Session*, April 15, 1959.

⁴³ Stewart Holbrook and John Jones to Walt Disney, 5/16/1958 and J. Edgar Hoover to John Jones, 6/4/1958. Facimile provided by Jeff Honeyman, engineer WP&Zry, Oregon Zoo.

⁴⁴ Walt Disney to J. Jones, 6/3/1958. Facimile provided to the author by Jeff Honeyman, engineer WP&Zry, Oregon Zoo.

⁴⁵ Ibid.

⁴⁶ Oregon Centennial Commission/ Portland Zoo Commission Agreement: RE: *Operation of Railroad at Centennial*, 7/28/1958. Portland (OR) Archives, General Zoo Correspondence, 116 01-0456.

⁴⁷ "The History of the *Oregon*," Oregon Zoo Webpage: http://www.oregonzoo.org/AboutZoo/history_of_the_Oregon.htm

⁴⁸ "Group to Push \$1 Shares in Zooliner to Extend Track, Add Steam Engine," *Oregonian*, 8/17/1958:21.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

Newspaperman Ed Miller was one of the prime movers of the establishment of the railroad. He described the financial particulars as follows:

Total out of pocket expenditures were very close to \$60,000. The construction of the steam locomotive was largely an outpouring of affection by buffs because the actual rate of pay approximated 25 cents an hour. True commercial worth of the locomotive was calculated at \$50,000 bringing the real worth of the entire 5-car steam train to approximately \$100,000, or about the same as the *Zooliner*.⁴⁹

A new steam engine that was named *Oregon* in honor of Oregon's centennial was built and became the second train at the Centennial in June of 1959. Each of its four cars were labeled 'Oregon Centennial Railroad' and each car carried an emblem of the sponsoring major railroads: Union Pacific, Northern Pacific, Great Northern, Southern Pacific, and Spokane, Portland & Seattle. It was moved to the zoo, and on January 3, 1959 the *Oregonian* newspaper announced that the "live-steam locomotive *Oregon* will haul passengers at the new zoo for the first time Sunday. The steamer is being operated Sunday at the request of rail fans who wish to obtain photographs of the huff and puff locomotive working on its permanent tracks."⁵⁰ How many of the fans threw their hats in the air when the engine first emerged from the tunnel and blew its whistle is unrecorded.

On the peak of the Centennial Station were the emblems of the big railroads plus the emblem of the Portland Terminal Railroad Company and the letters PZRy in gold leaf. The *Zooliner* and the new *Oregon* were a money-making attraction used to finance "a major, spectacular expansion on the parent Portland Zoo Railway system."⁵¹

While the *Zooliner* and the new steam locomotive ran at the centennial celebration, the diesel-powered *Casey Pioneer No. 1* (now it is called the *Oregon Express*) was reconfigured as the *Circus Train*. Using this train at the zoo in the summer of 1958 was a stop-gap measure until the other trains were returned, and because it was somewhat basic and the rigid trucks under the cars were too stiff to negotiate the track to Washington Park, it could only run within the zoo.⁵² This train began its career as the *Casey Pioneer No. 1* at the zoo as the locomotive used in the original construction of the zoo and the zoo railway. It was from Brooks Scanlon Lumber Co. in Bend, Oregon.

Some of the money for the Washington Park line and the new steam engine *Oregon* came from a fund campaign that sold "stock" in the train for a dollar a share, worth two free rides on the train when the extension was complete.⁵³ This stock was sold by school children and "Bartenders in all of Portland's tavern wore engineer's caps and peddled the stock to patrons."⁵⁴ The Zoo Commissioners also pledged to sell stock, some as much as 1000 shares.⁵⁵

The Cinder Hill Company of Prineville provided 2000 cubic yards of gravel ballast for use at the Centennial site that was slated to be transported to the zoo after the celebration. The school children of Madras and neighboring Redmond loaded rail cars with this ballast. As a reward, each child in those towns was given a free share of *Zooliner* stock worth two rides on the completed track. The Northern Pacific delivered 2000 used, but sound, ties to the Centennial site that were also to be sent to the zoo after the celebration. A water tank built for the steam engine by the National Tank & Pipe Company was also later sent to the zoo. The Portland Zoo Railroad bought 16,000 lineal feet of 35-40-pound rail of the right size (and the nuts bolts and angle bars that went with it) from the C.S Heinz Jr. Construction Company, which had obtained the rail during the dismantling of a lumber mill at Vernonia.

⁴⁹ Ibid.

⁵⁰ "Zoo Engine Set For Haul," *Oregonian*, 1/3/1959:4.

⁵¹ Miller 1998:21.

⁵² Miller, 1998:71.

⁵³ "Group to Push \$1 Shares in Zooliner to Extend Track, Add Steam Engine," *Oregonian*, 8/17/1958:21.

⁵⁴ Richard Neuberger, "A Railroad So Popular it Must Expand," *Business Week*, 3/28/1959.

⁵⁵ Internal Memo, Zoo Commission, 6/9/1958. Portland (OR) Archives, General Zoo Correspondence, 116 01-0456.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

After the Centennial Celebration closed, and during the winter of 1958 and the spring of 1959, materials were stock-piled. This included 48 carloads of gravel ballast from Central Oregon; 23,652 lineal feet of rail; 23,950 spikes; five switches; and 7,850 ties. The PZRY was built largely by volunteers. As the road was being constructed, *The Daily Journal of Commerce* published a feature titled "Materials Wanted for Zooliner", which was a weekly list of materials, services, and equipment needed for the project, and they also gave credit to those making donations. Fundraising efforts and appeals assistance were answered.

The Centennial Train Station building was also moved to Washington Park for its use for the zoo railway. Costs of removing the station from the Centennial to the zoo and re-erecting it there were part of the big railroads' Centennial contribution. The cost to them was \$3,100. At the new site the station was shortened by 25'. Employees of the Oregon Bank donated a new paint job.

Both the main zoo train station and the Washington Park Station were constructed with glu-lam arches donated by Ward Mayer, of Timber Structures, Inc. Mayer offered his firm's glu-lam products for use on the railroad, and the architect designed the main zoo railroad station with these beams holding cables that held the green plastic sheets that were the roof.⁵⁶ The main station consisted of an open-air platform under a shelter constructed with a glulam supports. The platform had a maze that directed passengers in single file to the trains. The Electrical Workers Union, with the assistance of Pacific Power and Light strung the cables that supported the green plastic roof for free, and Waldo Hirschberger covered the cost of the ticket office construction. This station was torn down and replaced with a new structure in 2014. The Washington Park Station (the old Centennial Station) is extant.

In 1959 the Weyerhaeuser mill shop built a three-unit fire-train for use on the Washington Park line. A surplus locomotive built in 1929 (now called Locomotive No. 3) was given a new body, 15'-8" long; a second unit, 19' long, contained a 500-gallon tank; a gasoline pump; a reel of hose; and two ladders. The third unit was a caboose with portable fire-fighting equipment. This unit is 18'-7" long, and had two facing seats for about 8 firefighters.

Donors provided the necessary materials to extend the track. Senator Neuberger wrote an article in *Business Week* about the railroad in its March 28, 1959, issue. The headline was "A Railroad So Popular it Must Expand." The article noted that "the railroad was aggressively laying new iron and ordering new equipment, to add to a system that first went into operation only last June."⁵⁷ Senator Neuberger's address to the United States Senate concluded with the following remarks about the Portland Zoo Train and the grassroots effort to built the railroad:

I have cited all these accomplishments and donations, Mr. President, because they demonstrate what can be attained at the local level by public-spirited people, whether they are in industry and management or in the ranks of trade unions and organized labor. So that the record may be compiled of the unselfish and altruistic community interest in the Portland Zoo Railway.⁵⁸

In July 1960 an article in the *Railroad Employee's Journal* described the effort to build the PZRY:

Railroaders and railroad, industries, business houses, labor unions, private citizens and school children throughout Oregon all contributed to the building of the prosperous PZR. Retired railroad engineers run its popular trains. Experts from survey crews and an ICC safety inspector to gandy dancers came off the big railroads to help lay the track.⁵⁹

⁵⁶ Abbot Lawrence to Harry Buckley, Bureau of Parks, 7/17/1958. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

⁵⁷ US Senator Richard L. Neuberger, "A Railroad So Popular it Must Expand," *Business Week*, 3/28/1959.

⁵⁸ Richard L. Neuberger, "Community Enterprise at Grassroots Builds Portland Oreg. Zoo Railway," *Congressional Record, Proceedings and Debates of the 86th Congress, First Session*, April 15, 1959.

⁵⁹ "Portland's Pint-Size Pleasure Pike," *Railway Employee's Journal*, 7/1960.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

In conclusion, this state-wide effort of community planning built the railroad, making it significant under Criteria A at the Statewide level. The PZRY is the physical manifestation of a one-of-a-kind state-wide cooperative effort of over twenty-five thousand people that has made a lasting and significant contribution to the broad patterns of our history under the category of Community Planning and Development.

See Table 2 for an itemized list of people and state-wide companies who made contributions to the PZRY.

Entertainment/Recreation Area of Significance

The zoo and its rail line were built for entertainment, and the PZRY is significant under Criteria C as superb entertainment. The trip to Washington Park was built to be an exceptional ride through a forest to a hilltop in Washington Park that afforded a panoramic view of the International Rose Test Garden, the city of Portland, and the Cascade Mountains beyond.

On January 30, 1960, the Washington Park route was completed, and a Golden Spike Ceremony was held. The *Zooliner* and the *Oregon* steamer met nose to nose just like the Union Pacific and Central Pacific at Promontory Point.⁶⁰ The first test trip on the new track was on May 10, when the train traveled to the Washington Park station in twenty minutes. Riders, adults and children alike, enjoyed the hundreds of trilliums, wild currant, ocean spray, and dogwood in bloom in the canyon. The *Oregonian* reported "The long-awaited Washington Park Line of the Portland Zoo Railway will be opened to the public for the first time Saturday...The line winds through the forest high above the SW Canyon Road and has many of the aspects of a mountain railroad. It is believed to provide the most spectacular ride of any fun railroad in the nation."⁶¹

An article headlined "Portland's Pint-Size Pleasure Pike" noted that the railroad was built for the enjoyment of adults and children alike, and it had become an important tourist attraction for the city. The extension to Washington Park was described as a 'deluxe trip' and that "The new branch winds high along straight-up canyon walls bends around sharp turns in the city's tree-filled west hills....A few weeks from now the summer greens will change to the browns and fiery reds of autumn, and after that with the PZR's snowplow clearing the way, the train will wind through a glistening white wonderland of winter."⁶²

From 1960 to 1968 the operation was split into two rides to give riders a choice. The original half-mile track in the zoo was called the "Red Line"; the Washington Park route was designated the "Green Line." During the first year of dual operation, May 31, 1960, to June 1, 1961, the Portland Zoo Railroad trains carried 235,652 paid customers. Spot-checks indicated an additional 26 percent of the total were small children who rode free. This brought a total to about 295,000 passengers for the year. The zoo railway was called "The Biggest Little Railway in the Country."⁶³ This was also the year the railroad was given the contract to carry mail for one dollar a year. An unnamed printer at the *Oregonian* first proposed the idea to have the locomotives carry U.S. Mail to Ed Miller. Miller in turn suggested it to Frank Queen, the then-president of the Portland Zoological Society. The idea was that people could mail letters and postcards that would be stamped with "Portland Zoo Railway" and that the postal station would have considerable promotional value.⁶⁴ On June 13, 1961, promptly at 11:30 am, Portland's postmaster swore in John H. Jones and L.L. Roberts, zoo stationmaster, as postmasters. Each letter bears the regular cancellation "Portland Zoo Railway, Oreg." Each letter was stamped with "Official U.S. Railway Mail, Portland Zoological Gardens."⁶⁵ The PZRY continues to be the only recreational railroad to carry U.S. Mail.

The Washington Park Green Line to Washington Park was an immediate success and flourished with income four times greater than intake from the Red Line that used the Circus Train to go to the elephant house and

⁶⁰ Miller 1998:77.

⁶¹ "Park, Zoo Line Opens," *Oregonian*, 5/28/1960:7.

⁶² "Portland's Pint-Size Pleasure Pike," *Railway Employee's Journal*, 7/1960.

⁶³ "U.S. Postal Contract Given Zoo Railway," *Oregonian*, 6/14/1961.

⁶⁴ Ed Miller to Frank Queen, 9/18/1958. Portland (OR) Archives, General Zoo Correspondence, 116 01-0456.

⁶⁵ "U.S. Postal Contract Given Zoo Railway," *Oregonian*, 6/14/1961.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

back. Miller noted “The Washington Park line was flourishing with income four times greater than intake from the bob-tailed Zoo Line.”⁶⁶ The Green Line was often used for “moonlight rides.”⁶⁷ In the spring of 1961, a 75’ passing track was installed at the half-way mark to Washington Park. It was completed in time to handle two trains during the summer months. The 104th Reserve Training Division of the U. S. Army under the command of General Eugene G. Cushing were mustered to help built track and assist with the construction of a 210’ long, 24’ high trestle built on a 75’ radius loop. This was a community service activity but also served as training. The trestle was designed by the Southern Pacific engineering department and followed the design of early Pacific Northwest trestles. The troops constructed the trestle, and railroad crews laid 300’ of double track. Miller praised this effort, “Fabricating the trestle involved extensive preliminary work and demanded heavy physical labor. The army reserves pitched in with a will on the weekend of October 28-29, 1961. They brought their own kitchen, their chaplain held a Sunday service at the site, and an army band played “I’ve Been Working on the Railroad.”⁶⁸

In 1961 headlines announced that the “Portland Zoo Railway Makes Profit.”⁶⁹ One article touted the new railroad as follows: “It is rare, indeed, that a new railroad is established, and rarer, still that it makes a profit. But a new line here is doing a brisk profitable business. Its name is the Portland Zoo Railway and its trains chug through the woods and around the animal dens of the zoo.”⁷⁰ In 1960 the railroad carried 250,000 passengers. Gross receipts were \$80,209 and the value of the whole was nearly \$600,000. By 1961 the number had increased, and in 1962 and 1963 combined the railroad carried approximately 600,000 passengers. This was when two additional passing tracks of 291 and 324 lineal feet were installed on the lower half of the Washington Park line to permit the simultaneous operation of four trains in order to meet demand. In the fall of 1962, the steepest part of the grade was redesigned from a 4.5 grade to a 3.5 grade by the Spokane, Portland & Seattle Railway crews so the locomotives could negotiate the grade without slippage on the downgrade.

The railroad was touted as a financial bonanza to Portland in 1962: “Daylight runs to Washington Park and return listed 41,452 customers boarding at the zoo station and another 7,436 boarding at the park depot. Zoo loop rides, a one-mile trip within the zoo proper, lured another 15,106 and Moonlight Rides—after dark trips to Washington Park and return—produced 7,425 cash fares.”⁷¹ The ride included a ten-minute stop at Washington Park so visitors could take in the view of the International Rose Test Garden, the Portland skyline, Mt. St Helens, and Mt. Hood. *Sunset Magazine* wrote an article about Portland’s Rose Festival and featured a photograph of the *Oregon* blowing its steam whistle on its June 1964 cover.

The railway was met with enthusiasm from many quarters. That year it was arranged that the Oregon State all-star football players would be treated to a steak barbecue at the zoo, and “later in the evening, they will board the zoo train for a tour of the Portland Zoo.”⁷² It was also that year that the Oregon School of the Blind students visited and enjoyed holding rabbits, listening to birdcalls, and riding on the zoo train.⁷³ Rose Festival princesses rode the train from the International Rose Test Garden to the zoo.

In 1968 the zoo loop and the Washington Park route were combined into one ride. The wood trestle was discontinued, and the new configuration was described as follows: “No track was added in order to combine the route. There was already a wye just inside the zoo fence that the Zoo Loop train would go around after coming off of the trestle to go around the zoo. The Washington Park trains would go straight up to the station, reverse up a crossover track and then run through the tunnel to get turned around. When they combined the

⁶⁶ Miller 1998:80.

⁶⁷ *Oregon Journal*, 7/6/1961.

⁶⁸ Miller 1998:85-6.

⁶⁹ *Herald and News*, Klamath Falls, OR, 10/1/1961.

⁷⁰ *Ibid.*

⁷¹ “Thousands Attend Zoo, Ride Railroad,” *Herald and News*, Klamath Falls, OR, 8/21/1962:2).

⁷² “Causey, Looney May Get Call in Shrine All-Star Grid Contest,” *Statesman Journal*, (Salem) 8/ 6/1962:10

⁷³ *Statesman Journal*, May 11, 1962:1.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

two rides, all that needed to happen was for the train coming in from the park to go around the wye and onto the Zoo Loop. That's what took the trestle out of play."⁷⁴

A popular program at the zoo was the Halloween-time 'Spook Rides' where the riders would take an evening ride haunted by ghosts and highlighted by a stopover at a 'haunted cave'. The Halloween Spook Train was so popular that people had to stand in line for hours. This was remedied in 1970 when they put the trains on the whole loop to permit faster scheduling.⁷⁵ The Halloween train was an annual event from 1961 to 1977. The *Oregonian* reported, "In its heyday the event was so popular that for thousands of people the zoo was the place to be on Halloween night. People would line up three abreast from the ticket window and across the zoo parking lot, waiting sometimes as long as three hours to get a scary train ride."⁷⁶ During Easter season in 1965, "two huge bunnies, waving carrot 'swords', flagged down the train."⁷⁷ Earlier a bandit lion and two colleagues staged a bandit holdup. There was a real holdup on the evening of July 6, 1969, when the safe that held the day's proceeds from train rides and concessions was cut into with an acetylene torch and \$10,000 was taken.⁷⁸

The train was always considered (and is) a real train, not a toy. Not surprisingly one newspaper reported in 1971 that the zoo train would not be affected by the Railroad Signalmen's Union strike and noted that that day the train carried the patients of Children's Hospital School in Eugene.⁷⁹ Over the years, professional and experienced railroad engineers, railroad firemen, and maintenance workers who had worked on rail lines throughout the United States operated the railroad. Almost all the first engineers on the zoo railway were retired railroad engineers. The McDermott brothers each had more than forty years of experience working for Union Pacific Railroad. The *Oregonian* reported:

Railroad manager Gary Ostlund was the fireman on the 4449 steam train that traveled across the United States for the Bicentennial celebration, Ken Curtis is the son of a steam engineer and a former Air Force mechanic. Ray Durbin's been driving and repairing the zoo's trains for 10 years, and Bob Hoffman said he got "steam in my blood: while working for Southern Pacific Railroad as a teen-ager."⁸⁰

In 1977 George Hood, the avant-garde filmmaker of the Film Loft, was commissioned to make a series of television commercials for the zoo, including one for the train that was titled "Get on the Zoo Train" (*Statesman Journal*, April 26, 1978:11).⁸¹ Nevertheless, vandalism and an economic slowdown in 1978 prompted the zoo's board of directors to end the eighteen-year run of the Halloween train (*Albany Democrat-Herald*, Oct 23, 1978:11). This was revived in the 1990s with the ZooBoo program. Additionally, during the holiday season the zoo is decorated with a dynamic light show known as ZooLights, which includes the *Oregon* and the *Zooliner* decked out with lights.

The zoo railway has played an important part in moving people through Washington Park. During music festivals and plays that took place at the amphitheater in Washington Park, the trains transported audience members from the zoo (which has a large parking lot) to Washington Park and back after performances. In the summer of 1975, for example, trains transported audience members to the amphitheater for the Oregon Symphony Orchestra, the Al Kader Shrine Temple Band, the Portland Symphonic Band, a ballet by the Ballet Workshop, the opera *Secrets of Suzanne*, a performance by the Portland Chorale, and the play *Legend of Sleepy Hollow* for the fare of \$1 to the show, and .50 cents on the return.⁸² When available, the reduced combined ticket fee packages for the Washington Park Zoo railway and the Japanese Garden also help relieve

⁷⁴ Jeff Honeyman, Email communication November 8, 2019.

⁷⁵ "Zoo Reschedules Spook Train," *Albany Democrat-Herald*, 10/14/1970:8

⁷⁶ "Among Zoo's Rail Crew, Number One is just that," *Oregonian* 10/23/1985:E7.

⁷⁷ "Children's Zoo Draws Young," *Oregon Statesman Journal*, 6/13/1965:31.

⁷⁸ "Zoo Burglarized," *Capital Journal*, July 7, 1969:6.

⁷⁹ "Portland Zoo Train Pays No Heed to Rail Strike," *Albany Democrat Herald*, May 18, 1971:10

⁸⁰ "Among Zoo's Rail Crew, Number One is just that," *Oregonian* 10/23/1985:E7.

⁸¹ Hood's commercial "Your Zoo" was a finalist in the 17th Annual International Broadcasting Awards sponsored by the Hollywood Radio and Television Society (*Statesman Journal*, April 26, 1978).

⁸² See *The Capital Journal* events pages for the scheduled performances for the summer of 1975-1979.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

parking problems and congestion at Washington Park. A locomotive the zoo had obtained from a Weyerhaeuser mill was rebuilt and given the name *Orient Express* (now renamed *Oregon Express*) because it transported passengers from the zoo to the Washington Park station where passengers could disembark and visit the Japanese Garden.

The Portland Zoo Railroad Company has had some famous riders. In 1959 Senator John F. Kennedy took a ride on the steamer *Oregon* at the Oregon Centennial Exposition when he was campaigning for president (see Figure 20). As a joke, actors dressed as bandits pretended to rob the train and kidnap the Senator. A children's book about the zoo train had just been published titled *Clickety-Clack and the Bandits*, which may have inspired the joke.⁸³ On the same day in May 1968 while campaigning for president, both Senators Eugene McCarthy and Robert Kennedy rode from Washington Park to the zoo in the *Zooliner*, though at different times, when they were campaigning in Portland. After visiting the zoo, Kennedy, his wife Ethyl, and astronaut John Glenn rode the train to the International Rose Test Garden where they disembarked and boarded the campaign bus (see Figure 19).⁸⁴ Senator Kennedy was assassinated a week later. In 1976 when candidate Jimmy Carter was running for president, the Carters, including their eight-year-old daughter Amy, rode the train to the elephant house.⁸⁵

On May 12, 1977, an agreement was signed between Metro (Metropolitan Service District) and the City of Portland pursuant to Ordinance No. 143589 wherein the City of Portland leased the Zoo Railway to the Metropolitan Service District. The terms were at no cost, and included the railroad line, a 20' right-of-way along the entire route of the railroad line and the entire Washington Park terminal. This ordinance was retroactive to July 12, 1976. Metro was allowed to install and operate exhibits and displays for the holiday ZooLights event and the Halloween Train. One stipulation was that if the zoo ceased operations on the rail line, that the title to such property "shall revert to the City." The operation of the railroad was not transferrable to any other party unless assigned by the city and approved by the City Council. The last paragraph stipulated that Metro "shall keep the railroad right-of-way free and clear of all encumbrances and will hold harmless, defend and indemnify City from any and all liability arising in whole or in part from the existence or operation of the zoo railroad."⁸⁶

In 1978 the zoo railroad was renamed Washington Park and Zoo Railway. Metro commissioned a study that revealed that the zoo itself needed repairs and improvements for animal care. The year before Metro took over the zoo, the zoo administrators had overspent their budget. The zoo railroad came to the rescue: there was money available from the zoo's contingency and capital improvement funds, which came in part from the profits from the zoo railroad. According to *ZooBeat*, the bi-monthly publication for Friends of the Washington Park Zoo:

Most years, this railroad runs at a considerable profit, generating revenue for other Zoo programs. During the last fiscal year [1992] the Zoo railway carried 267,000 riders, netting \$134,000 on total revenues of just under \$500,000. A 1990 survey of the nation's recreational railroads revealed ours to be, by a considerable margin, the largest, most heavily travelled, most profitable of them all.⁸⁷

Engineering Area of Significance

The PZRY is significant because it exists as a small scale stand-alone fully realized and engineered 5/8ths scale railroad that runs real trains pulled by authentic custom-built locomotives. Like other railroads, the railroad itself is made up of steel T rails joined together with joint bars and fastened by spikes to wooden cross-ties bedded in a ballast of pit run, cinders, and gravel resting on a roadbed made by grading up the hollows

⁸³ Ann Leo, *Clickety-Clack and the Bandits*, (Portland: Investment Enterprises, 1959). Profits from the sales of the book were used to build the railroad.

⁸⁴ *Statesman Journal*, May 27, 1968:1

⁸⁵ *Corvallis Gazette-Times*, May 24, 1976:24.

⁸⁶ Signed agreement between the City and Metro: *Lease of Equipment and Right-of-Way of the Zoo Railroad*, Pursuant to Ordinance 143589. 10/10/1978. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

⁸⁷ *ZooBeat*, Vol. 15 no. 3, May-June 1993.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

and grading down the hills in the line of the road, and such culverts and structures necessary for crossing and drainage. The engineering features of the road that are the most significant are the ~3 percent grade of the roadbed, and the 3' gauge of the tracks which permitted a radius curve of 75', which was sharp enough to negotiate the planned loops and the terrain.

The design and development of the railroad was a challenge. Portland City Ordinance No. 107724 began Section 1 with the following sentence: "The Council finds that the proper and successful development and operation of the Washington-Hoyt Park Railroad requires technical knowledge concerning rail systems: that numerous persons with experience and knowledge of railroad have indicated willingness to act as advisor group to the Commissioner in charge of the Bureau of Parks in the development and operation of said railroad." L.R. Smith, Superintendent of the Southern Pacific, had his survey crew establish the road line to Washington Park. His men conducted a survey at no cost and determined the road could be built with an average grade of 3 percent and that the grades were within the capabilities of the planned trains.⁸⁸

Because railroads cannot negotiate grades steeper than four percent, the railroad route (including stations, tunnel, viaducts and grade), was planned and drawn first, and the enclosures for the animals were arranged on the remaining space.⁸⁹ The chief architect was H. Abbot Lawrence of Lawrence, Tucker & Wallmann.⁹⁰ There was no named principal engineer; however the route was surveyed by engineers of the Southern Pacific Railroad under the direction of L. R. Smith and the grade was engineered by the staff of the Spokane, Portland and Seattle Railroad (now BNSF Railroad) and built by the Ketell Construction Company. The plan was to take advantage of the topographic features of the site with a looped system that offered a variety of views of the zoo area as well as distant views of the city and mountains. In addition to the recreational values, as planned it would serve as transportation from the zoo's entrance to three stations within the zoo area, and a connection to Washington Park.⁹¹

In the correspondence files of Lawrence, Tucker & Wallmann, there are numerous letters that demonstrate that the architects were seeking the best examples of an integrated zoo and railway design. Abbott Lawrence and Ernest Tucker visited twelve of the nation's finest zoos, including Lincoln Park (Chicago), the Cleveland Zoological Gardens, New York Zoological Park, (The Bronx), the National Zoological Park (Washington D.C.), St. Louis Zoological Garden, Chicago Zoological Park, and the Woodland Park Zoo (Seattle). They met many leading zoo directors and curators at the National Convention of the American Institute of Park Executives in Baltimore, where they were able to "meet and quiz many of the Zoo men before our visits to a number of the top Zoos...Directors, curators, and keepers alike have contributed and continue to contribute generously to our knowledge. Certainly, Zoo men are the most generous bunch of enthusiasts we have ever seen."⁹² The architects found that the prospects for the zoo railroad were good, "We have found a location with a 2 percent maximum grade which gives a ¾ mile scenic ride unexcelled for variety and beauty in any zoo we've seen."⁹³

The architect mustered all the expertise necessary to build the railroad. Under the direction of Lawrence, Herbert Ketell, of the Ketell Construction Company, conducted a Railroad Study Report in advance of designing the grades, building locations, walks, and drives.⁹⁴ As originally laid out, the track was a single line

⁸⁸ L.R. Smith to Edward W. Miller, Mrch 1, 1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

⁸⁹ Miller 1998:19.

⁹⁰ H. Abbot Lawrence was the son of the famous and prolific architect Ellis Fuller Lawrence, and worked in his office in the 1930s.

⁹¹ Lawrence, Tucker & Wallmann letter to Bureau of Parks and Public Restion, 11/20/1956. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

⁹² Lawrence to George Hjelte, 7/8/1957. Department of Recreation Los Angeles. Lawrence, Tucker & Wallmann records, 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collectons and University Archives.

⁹³ "Portland's Proposed Zoo Offers Possibility for National Attraction," undated clipping, promotion folder. Lawrence, Tucker & Wallmann records, 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collectons and University Archives. The grad was later changed to 3%.

⁹⁴ A. Lawrence to H. Ketell, 6/8/1955. Lawrence, Tucker & Wallmann records, 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collectons and University Archives. Ketell was also on the Zoo Train Committee.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

with loops at both ends in a dog bone configuration.⁹⁵ The western loop was at the zoo entrance, and the eastern loop was a trestle near where the elephant house would be built. There was a half-mile of track between the loops, which included three viaducts that surmounted the bear pits, which once built would provide an excellent viewing opportunity to view the expected Russian bears.⁹⁶ The architect provided a general description of the railroad system:

Planned to take advantage of the topographic features of the site, the looped system will offer a variety of views of the Zoo area as well as distant views of the city and mountains. In addition to the recreational values it will serve as transportation from the entrance to three stations within the Zoo, with the possibility of an eventual connection to Washington Park.⁹⁷

Most of the trains used in zoos at that time operated on rails that were very small gauge of 12 to 22 inches, and the vast majority of these zoo trains were Huntington type mini trains which were manufactured and marketed as attractions for zoos and theme parks. One of the zoo commission's members was an official of the Steamfitters Union in Portland, and he objected to such a small train: "A kiddies' train is beneath the dignity of the Portland zoo."⁹⁸ A 30" gauge rail line was decided on because sawmills and mines had used this gauge for their equipment, and some rolling stock may be available at a discount. This gauge was considered safe because it was wide enough to eliminate any possibility of tipping (like the toy ride railroads often did), and it permitted a minimum radius curve of 75', which was sharp enough to negotiate the terrain.

On July 29, 1958, City of Portland Ordinance No. 10847 granted a revocable permit to the Portland Zoo Railroad to run tracks across portions of Hoyt Arboretum, Washington Park, and portions of property owned by the Bureau of Water Works. The grading for the Washington Park route was finished in the fall of 1959. The route traversed two drainages, including one named Texas Gulch. Contractor Bert James furnished the bulldozers and equipment at no cost and other portions of the work were donated.

The engineering of the trains was a challenge as well. Besides working on the design of the track, the builders needed rolling stock and had to decide what kind of trains they should obtain. Children were asked what type of train they wanted, and a design contest was conducted to determine what type of train should be built. In 1956 Jerry Hirschberger and his father Waldo saw the futuristic *Aerotrain* at a conference, and with the idea of entering the contest for the proposed zoo train, they toured the GM Electro-Motive Division where the locomotives were built. At the end of the tour, the drafting department handed them a roll of blueprints of the *Aerotrain* scaled down to five-eighths scale. The children voted overwhelmingly to build the futuristic design, much to the chagrin of some of the zoo committee who wanted a steam engine.⁹⁹ The rocket-like design of the *Zooliner* fulfilled the children's request, and the Hirschbergers won the contest. The drawings showed a streamlined, diesel-powered locomotive 30' long that pulled four similarly streamlined cars, each 21' long.

Jerry Hirschberger designed the body of the train and volunteers worked nights and weekends for over a year in the company shop fabricating the bodywork from rolled and stamped sheet metal welded together to produce the locomotive and coaches of the *Zooliner*.¹⁰⁰ A Request for Designs of the running gear (trucks and

⁹⁵ O. Bean to RR Executives; Jan. 16, 1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33. Bean wrote that the route in the zoo proper had already been established and partly graded, and the Southern Pacific surveyors were surveying the Washington Park route.

⁹⁶ Four Russian bear cubs had been brought to Portland by the zoo director Jack Marks on August 4, 1958 who traded them for four Oregon beavers. The unprecedented trade was arranged by Senator Richard Neuberger (D-Ore) and Soviet Ambassador Mikhail Menshikov. See *Eugene Register-Guard*, 8/5/1958:10a.

⁹⁷ *Facts Sheet, Railroad System, Portland Zoological Gardens*. Lawrence, Tucker & Wallmann records, 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collections and University Archives.

⁹⁸ John Gillard quoted in Miller 1998:23.

⁹⁹ H. R. Ketell, chair of the Rail Road Committee, *Year End Report of the Railroad Committee to the Portland Zoo Commission*, 1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33, .

¹⁰⁰ Faith Cathcart, "Fabulous at Fifty," *Oregonian* 6/13/2008. The Hirschberger Sheet Metal Company was a fourth-generation family-owned company that specialized in custom sheet metal working.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

base frames) was initiated and Northwest Marine Ironworks was awarded the contract at a cost of \$105,000.¹⁰¹ Hungarian train designer and engineer John Flaschner designed the running gear. According to Miller, "The intention of the zoo nabobs was to build a superior train."¹⁰²

No detail was too small, as exemplified by the plans for the bell. A citizen named Jack Flaucher wanted to contribute to the effort by making a bell for the new *Zooliner*:

Mr. Jack Flaucher is arranging to have a railroad engine bell made for us that will give the people who ride the train an extra thrill...we want the engine as it comes into the station to be ringing the bell as it crosses the overpasses and railroad crossings the engineer can ring the bell. We would like to get as large a bell made as can be fit underneath the hood of the engine...We hope that you will figure out some way to have a cord go from the bell on back to the engineer so that he can ring the bell rather easily as he comes into the station and goes over the crossings. If you will please let me know as soon as you can the largest bell that you reasonably put under the hood up front,and I will tell Jack Flaucher to make that size bell.¹⁰³

Once the drawings were circulated among the committee members, the "forthcoming magnificence of the *Zooliner* was emerging clearly from engineering designs and the artist's glowing projections."¹⁰⁴ The projected ride was about one half mile, and shortness of the ride and the size of the train became problematic, and it was evident that they should begin planning sooner rather than later for the Washington Park route. The necessity of operation funds and support of the railroad was a concern, and the railway committee worried that as planned, "Such a small railway would not bring in adequate revenue."¹⁰⁵ They cited the research that the architects' had conducted on existing zoo railroads such as the Detroit Zoo train 'which makes the most money':

Every Zoo that has a railway that we have contacted is very enthusiastic about the railway and they are all making money on them. There is no possible reason why the Portland Zoo should not make good money on the railway if the railway is built adequately and travels through a scenic area: but the short run railway as now drawn by the architects is very inadequate and would jeopardize the financial success and the enjoyment success of a railroad we hope to have in the Zoo.¹⁰⁶

Contextual Setting

Civic Project Context: There was a post war boom in civic projects in Oregon though none of these are comparable to the effort to build the PZRY, which was a bootstrap operation in which the city and the zoo partnered state-wide with nearly 25,000 individuals and firms that contributed labor, materials, cash, or "stock" carrying ride coupons. Other civic projects during this era include the construction of a new bridge over the Willamette River (the Morrison Bridge), and new sports and convention center (realized as the Memorial Coliseum).¹⁰⁷ Like the zoo and the PZRY, the Memorial Coliseum is significant in the areas of 'community planning and development' as well as for 'entertainment/recreation' but these projects pale in comparison with the efforts to build the PZRY.¹⁰⁸

¹⁰¹ Portland City Ordinance 105334, Jan. 18, 1957, authorized the contracts. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33,

¹⁰² Miller 1998:27.

¹⁰³ Ketell to Flashner, Northwest Marine Ironworks. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

¹⁰⁴ Miller 1998:30.

¹⁰⁵ Herbert Ketell to Portland Zoo Commission, 5/13/1955. Lawrence, Tucker & Wallmann records, 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collectons and University Archives.

¹⁰⁶ Herbert Ketell to Portland Zoo Commission, 5/13/1955. Lawrence, Tucker & Wallmann records, 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collectons and University Archives.

¹⁰⁷ "Portland Sets the Pace," Hepner Gazette, May 27, 1954.

¹⁰⁸ Oregon Historic Sites Database, see also Kristen Minor, *Memorial Coliseum National Register Nomination*, 2009.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

Recreation and Engineering Context: There are no other theme park railroads in Oregon besides the PZRy. There are thirty-one theme parks or zoos in the United States that currently have recreational trains built during the post-WWII era (see Table 1 for comparative data on these extant railroads). A comparison of these railroads with the PZRy demonstrates that the PZRy is unique and an outstanding example of a zoo or theme park train in the United States based on quality and quantity of rolling stock, railroad route, scenic amenities, track gauge, and age. Further, it is unique among all the railroads in that it was not constructed by private or corporate entities, and that it was always publicly owned and supported.

Of these thirty-one railroads, twenty-five have miniature trains—which do not have railways engineered to commercial standards by professional railroad engineers—running on tracks that are a smaller gauge than the tracks of the PZRy, ranging from 15” to 24” in width. Whereas the PZRy has a 30” gauge and was constructed as a real railroad, twenty of these zoos or theme parks have trains that are not closely comparable to the PZRy because they use miniature trains known as the C.P. Huntington™ Train (miniature replicas of a historic steam locomotive). These Huntington train replicas are manufactured by the Chance Rides Company, which was established in 1961 and manufactured miniature trains as attractions.

The best comparable railroads to the PZRy are the six zoo or theme park railroads that have custom-built rolling stock or authentic locomotives obtained as used equipment from railroad companies. These comparable railroads have 30” or larger gauge tracks and were built during the post-war era. Listed, these are as follows: Disneyland Railroad, Omaha Zoo Railroad, Ghost Town & Calico Railroad, Six Flags Over Texas Railroad, Tweetsie Railroad, Cedar Point & Lake Erie Railroad. See Table 1 for comparative data on each of these railroads.

The first comparator to consider is the Disneyland Railroad which began in 1955 with two custom-built steam locomotives running on a 3-ft gauge track.¹⁰⁹ As with the PZRy, the track layout was created by railroad building experts, and some of the signals and rolling stock were from existing railroads. In 1958 and 1959 two more trains were added. These were both Baldwin steam locomotives dating from 1894 and 1925 respectively. Another Baldwin steam engine dating from 1902 was added in 2005. Between the summer of 1957 and the summer of 1958, a completely separate 30-gauge track was installed for a new train called the *Viewliner*, which was a streamlined train designed after the *Aerotrain*, as was the *Zooliner*. This train was discontinued when a monorail system was installed. The Disneyland Railroad has spectacular rolling stock, great amenities, and excellent viewsheds. Passengers travel through Disneyland on a circular track that is slightly shorter than the PZRy, at 1.2 miles. The ride boasts tunnels with several dioramas, four train stations, which include the main station situated at the park entrance. The ride is called the Grand Circle Tour, which begins at Main Street station, to Adventureland, Frontierland, though a tunnel at Splash Mountain, over a trestle to Toon Town, then on to Tomorrowland, through a tunnel with several dioramas, and back to Main Street. The track, stations, signals, and viewsheds have gone through renovation and alterations throughout the time the park has been running. The Disneyland Railroad was closed in 2016 for remodeling but opened again in 2017. Theme parks, like zoos, are dynamic and these changes do not diminish the cultural significance of this railroad, which retains its feeling and association and is in excellent condition.

The railroad that may be the closest comparator with the PZRy is the Omaha Zoo Railroad which dates from 1968. This is the only other recreational railroad in a zoo or theme park that has a 30” gauge track besides the PZRy. The OZRR has three locomotives in its collection, including two steam locomotives and one diesel. One of the steam locomotives was custom built for the zoo in 1968, the other built in Europe in 1890 and had various uses before it was brought to Omaha.¹¹⁰ The diesel locomotive was built in 1957 and went to the zoo in 2008. It is a switcher-type locomotive similar to Nos. 3 and 10 of the PZRy. Each locomotive pulls six open-air coaches and a caboose. Significant to this discussion, the PZRy was constructed earlier than the OZRR, has a more scenic route, though the route OZRR is 1/5th of a mile longer. The OZRR is owned by a nonprofit.

¹⁰⁹ Michael Broggie, *Walt Disney's Railroad Story: The Small-Scale Fascination That Led to a Full-Scale Kingdom* (4th ed.), 1998.

¹¹⁰ Jeff Terry (February 2006). "Trains at the Zoo - Part One". *Railfan and Railroad Magazine*. Newton, NJ.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

The next comparator is the Ghost Town & Calico Railroad at Knott's Berry Farm in Buena Park, California. This railroad has been operational since 1952. The oil-burning steam engines are both Baldwin Locomotives built in 1881 for the Denver & Rio Grande Western Railroad.¹¹¹ The route is only one-half mile long, and the trains travel on 36" gauge tracks. The route is a loop, with one station. The PZRy track is longer, more scenic, and has more rolling stock than the Ghost Town & Calico Railroad. This railroad is commercially owned.

Six Flags Over Texas Railroad is a 36-in gauge one-mile railway established in 1961. It operates on a loop through the park and stops at two stations. There are two steam locomotives. The oldest was built in 1897 by the H.K. Porter company, and the other was built in 1901 by American Locomotive Company. The PZRy track is longer, more scenic, and has more rolling stock. This railroad is commercially owned.

The Tweetsie Railroad is a 36" gauge railroad built in 1957 on a three-mile loop around a mountain in North Carolina. The route features a wooden trestle, and one station. There are two locomotives, both burn coal. Both are Baldwin locomotives, one was built in 1917, and the other was built in 1942. The forested setting is evocative, and the route is longer than the PZRy. However, the PZRy has more rolling stock. This railroad is commercially owned.

The last comparator is the Cedar Point & Lake Erie Railroad that was constructed in 1963, the Cedar Point theme park in Sandusky, Ohio. This is a 36" gauge two-mile loop rail line that connects the main theme park with the water park area. There are two stations, and the railroad has four steam locomotives, three of which were built between 1922 and 1927, and a fourth built in 1942. The route has been changed from the original in order to make room for a roller coaster in 2007 (Trainchasers.com). The PZRy track is shorter but the route is more scenic, older, and has more and varied rolling stock.

¹¹¹ "A Knott's Berry Farm Steam Locomotive is Reborn," *Orange County Register*, August 17, 2016.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

Glossary of Train Terminology

ballast	Gravel or broken stone laid in a foundation for a railroad.
boiler	A closed vessel in which water is heated for raising steam may be called a steam-generator.
connecting rod	A large steel arm that transfers motion from the piston to the driving wheel in a steam locomotive.
coupler	A mechanism for connecting rolling stock in a train.
cow catcher	An inclined frame in front of a locomotive to throw obstructions from the track.
crossbuck	A traffic sign to indicate a railway crossing composed of two slats of wood of equal length, fastened together on a pole in a saltire formation resembling the letter X.
fire-box	The fire-chamber of a locomotive-boiler.
industrial locomotive	A small switcher-type diesel locomotive used to shuffle cars and equipment around on industrial-owned track. May be also called a yard goat.
rolling stock	The cars of all descriptions which traverse the rails of a railway.
sand dome	The vessel on top of a boiler that holds sand that can be spread onto the rails so that the wheels have more friction.
stack	The chimney of a locomotive.
steam dome	A vessel on the top of a locomotive boiler that allows the steam pipe to be opened above the water line level.
tender	A car attached to a steam locomotive for carrying fuel or water.
trestle	A rail or roadbed supported by posts or pillars and framing in the intervals.
truck	A swiveling carriage with four or six wheels beneath the forward part of a locomotive or supporting one end of a railway car.
wigwag	A grade crossing warning signal that consists of a swinging disc with a red light that activates when a train is approaching.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

Albany Democrat-Herald, "Zoo Reschedules Spook Train," 10/14/1970:8

Albany Democrat Herald, "Portland Zoo Train Pays No Heed to Rail Strike," 5/18/1971:10

Bean, Ormand to Stewart H. Holbrook, Portland Zoo RR Board of Directors, 3/31/1958. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Bean, Ormand to RR Executives; Jan. 16, 1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Capital Journal, "Zoo Burglarized," (Salem), 7/7/1969:6.

Cathcart, Faith "Fabulous at Fifty," *Oregonian* 6/13/2008.

Christiansen, Dale, Superintendent of Parks, to Mayor Francis J. Ivancie, City of Portland Inter-Office Correspondence.

Clarke, E. B. to Harry Buckley, Superintendent of Parks, 5/ 23/1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Curran, Chrissy. "The Architectural Legacy of the 1959 Centennial Exposition." *Oregon Historical Quarterly* 220: 2 (Summer 2009).

Haselton G. to Abbott Lawrence, 5/29/1958. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Herald and News, "Portland Zoo Railway Makes a Profit," (Klamath Falls), 10/1/1961: Section 2:2.

Herald and News, "Thousands Attend Zoo, Ride Railroad," (Klamath Falls), 8/21/1962:2.

James & Yost, Inc. General Contractors to Ormond Bean, Bureau of Parks and Public Recreation, Specifications; Portland Zoo Railroad from New Zoo to Washington Park, 8/13/1958. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Ketell, H. to Portland Zoo Commission, Letter RE Zoo Liner Railroad, 6/3/1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Ketell, H. to Portland Zoo Commission, 5/13/1955. Lawrence, Tucker & Wallmann records, 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collections and University Archives.

Ketell, H. R. Year End Report of the Railroad Committee to the Portland Zoo Commission, 1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Ketell, Herbert, to Portland Zoo Commission, 5/13/1955. Lawrence, Tucker & Wallmann records, 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collections and University Archives.

Lawrence, Tucker & Wallmann records, Facts Sheet, Railroad System, Portland Zoological Gardens. 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collections and University Archives.

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

Lawrence, Tucker, & Wallmann Architects to Bureau of Parks & Public Recreation, 4/27/1957. For Discussion: Railroad, Car Barns, Yard and Stations.

Lawrence, Abbott, to Bureau of Parks, 11/20/1956. Portland (OR) Archives, Zoo Train Correspondence, 1956-1964, 18/7 04-10-33.

Lawrence, Abbott to Ketell, 6/8/1955. Lawrence, Tucker & Wallmann records, 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collections and University Archives.

Lawrence Abbott, to Harry Buckley, Bureau of Parks, 7/17/1958. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Lawrence, Abbott, to George Hjelte, 7/8/1957. Department of Recreation Los Angeles. Lawrence, Tucker & Wallmann records, 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collections and University Archives.

Lawrence, Abbott, "Portland's Proposed Zoo Offers Possibility for National Attraction," undated clipping, promotion folder. Lawrence, Tucker & Wallmann records, 1926-1960; Coll 113, Box 1, Zoo Correspondence. University of Oregon Libraries, Special Collections and University Archives.

Lawrence, Abbot, *Portland Zoo*, 1958. Drawing prepared for Mr. H.R. Ketell, Zoo Commissioner.

Matarrese, Joseph F. to Edward Miller, 7/18/1955. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Miller, Ed to Harry Buckley et al, 9/27/1958. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Miller Ed, to Frank Queen, 9/18/1958. Portland (OR) Archives, General Zoo Correspondence, 116 01-0456.

Neuberger, Senator Richard L., "Community Enterprise at Grassroots Builds Portland Oreg. Zoo Railway," Congressional Record, Proceedings and Debates of the 86th Congress, First Session, April 15, 1959.

Neuberger, Richard, "A Railroad So Popular it Must Expand," Business Week, 3/28/1959.

Oregon Centennial Commission/ Portland Zoo Commission Agreement: RE: Operation of Railroad at Centennial, 7/28/1958. Portland (OR) Archives, General Zoo Correspondence, 116 01-0456.

Oregon Statesman Journal, "Children's Zoo Draws Young," 6/13/1965.

Portland Zoo Commission, Year End Report of the Railroad Committee, Portland Zoo Commission, 1/13/1957. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Oregonian, "Group to Push \$1 Shares in Zooliner to Extend Track, Add Steam Engine," 8/17/1958:21.

Oregonian, "Zoo Engine Set For Haul," 1/3/1959:4.

Oregonian, "Park, Zoo Line Opens," 5/28/1960:7.

Oregonian, "U.S. Postal Contract Given Zoo Railway," 6/14/1961.

Oregonian, May 18, 1971:10

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

Oregonian, "Among Zoo's Rail Crew, Number One is just that," 10/23/1985: E7.

Portland City Ordinance 105334, 1/18/1957, authorization of construction contracts. Portland (OR) Archives, Zoo Train Correspondence 1956-1964, 18/7 04-10-33.

Statesman Journal, "Causey, Looney May Get Call in Shrine All-Star Grid Contest," (Salem), 8/ 6/1962:10.

Statesman Journal, "Oregonian Makes Quiet Commercial," 5/26/1978

Sherlock, Joe, "A View through the Windshield," www.joesherlock.com.

Statesman Journal (Salem), 12/24/2014: D2.

Terry, Jeff (*February 2006*). "Trains at the Zoo - Part One". *Railfan and Railroad Magazine*. Newton, NJ:

Queen, Frank to Malcolm Bauer, 6/3/1958. Portland (OR) Archives, General Zoo Correspondence, 116 01-0456.

Zoo Commission, Internal Memo, 6/9/1958. Portland (OR) Archives, General Zoo Correspondence, 116 01-0456.

ORDINANCES: City of Portland

105334: 1/23/1957: An Ordinance authorizing execution of contracts with northwest Marine Iron Works and H. Hirschberger Co. for the construction of a miniature locomotive and cars for the new zoo.

107724: 4/3/1958: An Ordinance amending Article 11 of Ordinance 77780 by adding new sections creating a Zoo Railway Committee, prescribing duties, established procedures, and declaring an emergency.

107870: 4/30/1958: An Ordinance accepting the gift of two tanks and two gas pumps for the zoo railway from The Texas Company.

108437: 7/29/589: An Ordinance granting a revocable permit to the Portland Zoo Railroad Division of the Portland Zoological Society to run railroad tracks across portions of Hoyt and Washington Parks and portions of property owned by the Bureau of Water Works.

108488: 3/6/1958: An Ordinance providing for the sum of \$4161.50 to be made available toward the extension of the zoo railroad to the Washington Park, and declaring an emergency.

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 # _____
 recorded by Historic American Landscape Survey # _____

Primary location of additional data:

State Historic Preservation Office
 Other State agency
 Federal agency
 Local government
 University
 Other
Name of repository: University of Oregon, Special Collections

Portland Zoo Railway Historic District
 Name of Property

Multnomah Co., OR
 County and State

10. Geographical Data

Acreage of Property 5

(Do not include previously listed resource acreage; enter "Less than one" if the acreage is .99 or less)

Latitude/Longitude Coordinates

Datum if other than WGS84: N/A

(enter coordinates to 6 decimal places)

1	<u>45.517707°</u> Latitude	<u>-122.706535°</u> Longitude	3	<u>45.50504°</u> Latitude	<u>-122.710688°</u> Longitude
2	<u>45.517361°</u> Latitude	<u>-122.70838°</u> Longitude	4	<u>45.509445°</u> Latitude	<u>122.717039°</u> Longitude

Verbal Boundary Description (Describe the boundaries of the property.)

The PZRy is a linear resource with three loops. Outside the loops the boundary is 10-ft on either side of the centerline of the railroad tracks. The total track length is about 1.56 miles long (8,240-ft) in a sinuous configuration. The boundary includes the Tunnel-Roundhouse and Zoo Station loop, the trestle as the second loop, and the Washington Park Station as the third loop (the boundaries of the looped areas described below). The boundary captures the railroad, roadbed, signals, trestle, sidings, stations, and platforms.

Loop 1: Captured within this are the Tunnel-Roundhouse and Zoo Station and associated track. From a point at 45.509893° N, 122.714448° W the first loop encompassing boundary is as follows:

Northerly	Westerly
45.509918°	122.714840°
45.509685°	122.715322°
45.509655°	122.715644°
45.509647°	122.716063°
45.509421°	122.716191°
45.509234°	122.715955°
45.509406°	122.715483°
45.509640°	122.715119°
45.509758°	122.714893°
45.509829°	122.714448°

To a point: 45.509829° N 122.714448° W. From this point the railroad extends in a line 478-feet northeast to 45.510367° N 122.712951° W. From that point the trestle loop encompassing boundary is as follows:

Northerly	Westerly
45.510450°	122.712667°
45.510615°	122.712469°
45.510623°	122.712050°
45.510341°	122.711954°
45.510217°	122.712265°
45.510337°	122.712554°
45.510367°	122.712951°

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

From this point (45.510679° N 122.712399° W) on the loop the track exits the loop and extends approximately 5737-feet in a sinuous line to this point: 45.516795° N 122.706643° W to where the Washington Park Loop begins. Within the loop boundary are the Washington Park Station, pedestrian viaduct, platform, and track. The boundary line encompasses this loop and is as follows:

Northerly	Westerly
45.517175°	122.706149°
45.517320°	122.705892°
45.517528°	122.705860°
45.517629°	122.706171°
45.517502°	122.706476°
45.517254°	122.706584°
45.516795°	122.706643°

Boundary Justification (Explain why the boundaries were selected.)

The boundary encompasses the existing visible and logical portions of the railroad and includes two stations, track, sidings, loops, buildings, and signals.

11. Form Prepared By

name/title Melissa Darby date March 31, 2019
organization Lower Columbia Research & Archaeology LLC telephone (503) 281-0204
street & number 3327 NE Simpson Street email lowercolumbia@gmail.com
city or town Portland state OR zip code 97211

Additional Documentation

Submit the following items with the completed form:

- **Regional Location Map**
- **Local Location Map**
- **Tax Lot Map**
- **Site Plan**
- **Floor Plans (As Applicable)**
- **Photo Location Map** (Include for historic districts and properties having large acreage or numerous resources. Key all photographs to this map and insert immediately after the photo log and before the list of figures).

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

Photographs:

Submit clear and descriptive photographs. The size of each image must be 3000x2000 pixels, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Portland Zoo Railway Historic District
City or Vicinity: Portland
County: Multnomah **State:** OR
Photographer: Melissa Darby
Date Photographed: November 2018, February 2019

Description of Photograph(s) and number, include description of view indicating direction of camera:

- Photo 1 of 21:** OR_MultnomahCounty_PortlandZooRailway_0001
Zoo Train Station, looking northwest towards platform
- Photo 2 of 21:** OR_Multnomah_PortlandZooRailway_0002
Railroad tunnel north portal and facade of Tunnel- Roundhouse complex
- Photo 3 of 21:** OR_Multnomah_PortlandZooRailway_0003
Wigwag signal, looking northeast
- Photo 4 of 21:** OR_Multnomah_PortlandZooRailway_0004
Riding the Zooliner, looking west towards signal crossing
- Photo 5 of 21:** OR_Multnomah_PortlandZooRailway_0005
Railroad trestle, looking west
- Photo 6 of 21:** OR_Multnomah_PortlandZooRailway_0006
Washington Park line, looking northwest
- Photo 7 of 21:** OR_Multnomah_PortlandZooRailway_0007
Embankment over Texas Gulch, looking southeast
- Photo 8 of 21:** OR_Multnomah_PortlandZooRailway_0008
Approach to the platform at the Washington Park Station, looking north
- Photo 9 of 21:** OR_Multnomah_PortlandZooRailway_0009
Viaduct over pedestrian trail, at Washington Park Station, looking east
- Photo 10 of 20:** OR_Multnomah_PortlandZooRailway_0010
Washington Park Station, looking southwest
- Photo 11 of 21:** OR_Multnomah_PortlandZooRailway_0011
West elevation of Washington Park Station looking east
- Photo 12 of 21:** OR_Multnomah_PortlandZooRailway_0012
East elevation of Washington Park Station looking west

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

- Photo 13 of 21:** OR_MultnomahCounty_PortlandZooRailway_00013
Looking northeast on tracks
- Photo 14 of 21:** OR_Multnomah_PortlandZooRailway_0014
Looking north on Washington Park line
- Photo 15 of 21:** OR_Multnomah_PortlandZooRailway_00015
Locomotive No 1, Oregon in the Roundhouse looking west.
- Photo 16 of 21:** OR_Multnomah_PortlandZooRailway_0016
Locomotive No. 2 Zooliner at the zoo station looking north
- Photo 17 of 21:** OR_Multnomah_PortlandZooRailway_0017
Locomotive No. 3, Work Train locomotive in the Roundhouse looking west
- Photo 18 of 21:** OR_Multnomah_PortlandZooRailway_0018
Locomotive No. 5, the Oregon Express looking northeast
- Photo 19 of 21:** OR_Multnomah_PortlandZooRailway_0019
Locomotive No 6 in the Roundhouse looking north
- Photo 20 of 21:** OR_Multnomah_PortlandZooRailway_0020
The Speeder looking east
- Photo 21 of 21:** OR_Multnomah_PortlandZooRailway_0021, water tower looking northeast

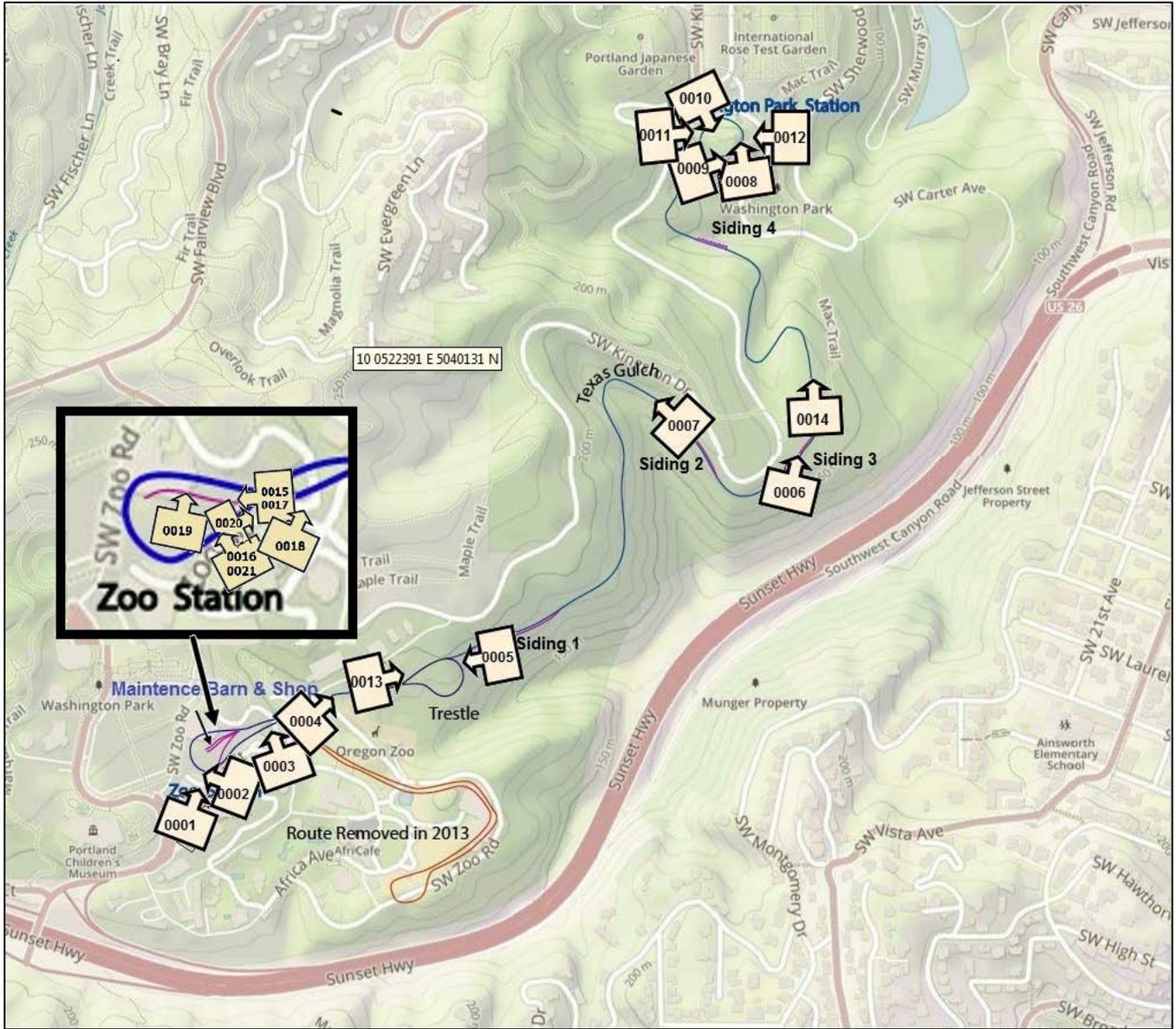
Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

Portland Zoo Railway Historic District
Name of Property

Multnomah Co., OR
County and State

Figure 1: Photo location map



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

N/A

Name of multiple listing (if applicable)

Section number Additional Documentation Page 38

List of Figures

(Resize, compact, and paste images of maps and historic documents in this section. Place captions, with figure numbers above each image. Orient maps so that north is at the top of the page, all document should be inserted with the top toward the top of the page.)

- Figure 1:** Photo Location Map.
- Figure 2:** Regional Location Map of the Portland Zoo Railway
- Figure 3:** Local Location Map, Portland Quad.
- Figure 4:** Tax lot map.
- Figure 5:** Site Plan showing nominated area in red, with UTM rectangle in blue.
- Figure 6:** Sketch plan of the Tunnel-Roundhouse Complex, and New Zoo Train Station.
- Figure 7:** Washington Park Train Station.
- Figure 8:** South portal of the tunnel 1958 (from Lawrence, Tucker, and Wallmann blueprint, Portland archives).
- Figure 9:** North Portal, Tunnel-Roundhouse complex façade (Lawrence, Tucker and Wallmann).
- Figure 10:** Profile drawings of the *Zooliner*, *Oregon*, and *Oregon Express* by Jeff Honeyman.
- Figure 11:** Eastside Commercial Club outing, Oregon Journal photograph, June 5, 1958. OHS Photograph Neg. #55818.
- Figure 12:** Locomotive No. 1 the Oregon being built, Oregon Journal photograph, June 6, 1959. OHS Neg. 49712.
- Figure 13:** Tracks being laid for the railroad. Oregon Journal photograph, April 30, 1958. OHS Negative 49715.
- Figure 14:** Bull Dozer pushing scraper during the construction of the railroad. *Oregon Journal* photograph, August 23, 1959. OHS collection 1893.
- Figure 15:** The Golden Spike Ceremony marking the completion of the track to Washington Park. The spike is driven by Major Gen. Eugene C. Cushing, commander of the 104th Reserve Infantry Division observed by Chairman of the railway Stewart H. Holbrook (left) and Jack H. Jones, railway president (right). Oregon Journal photograph, January 30, 1960. OHS collection 1893.
- Figure 16:** Volunteers paint the Washington Park Station. Oregon Journal photograph, May 15, 1960. OHS collection 1893.
- Figure 17:** *Zooliner*, May 22, 1958 (OHS call number 00135721).
- Figure 18:** Post card view of *Zooliner* and *Oregon*, ca 1960.
- Figure 19:** Robert and Ethel Kennedy, and astronaut John Glenn on the *Zooliner* (Getty image BET 515542140).
- Figure 20:** John Kennedy during his presidential campaign at the Oregon Centennial Celebration, 1959. The scene is a mock holdup by bandits.
- Figure 21:** Coach typically pulled by the *Oregon*.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

N/A

Name of multiple listing (if applicable)

Section number Additional Documentation Page 39

- Figure 22:** Coach car 501 pulled by the *Oregon Express*.
- Figure 23:** Machine shop in the Tunnel-Roundhouse complex.
- Figure 24:** Cover of *Sunset Magazine*, June 1961 showing the *Oregon*.
- Figure 25:** French Railroad magazine *La Vie Rail*, cover January 1961.
- Figure 26:** Engine No. 6 in front of Washington Park Station (no date).
- Figure 27:** Engine No. 3 (no date).
- Figure 28:** Rock Car (no date).
- Figure 29:** Side dump car (no date).
- Figure 30:** Miscellaneous Cars 503 and 504.
- Figure 31:** Grass-roofed cars 701-702 pulled by the *Oregon Express*.
- Figure 32:** Site plan showing route removed in 2013.
- Table 1:** Recreational Zoo or Theme Park Trains Compared to the PZRy.
- Table 2:** Companies and Oregonians Who Contributed to the Portland Zoo Railway.

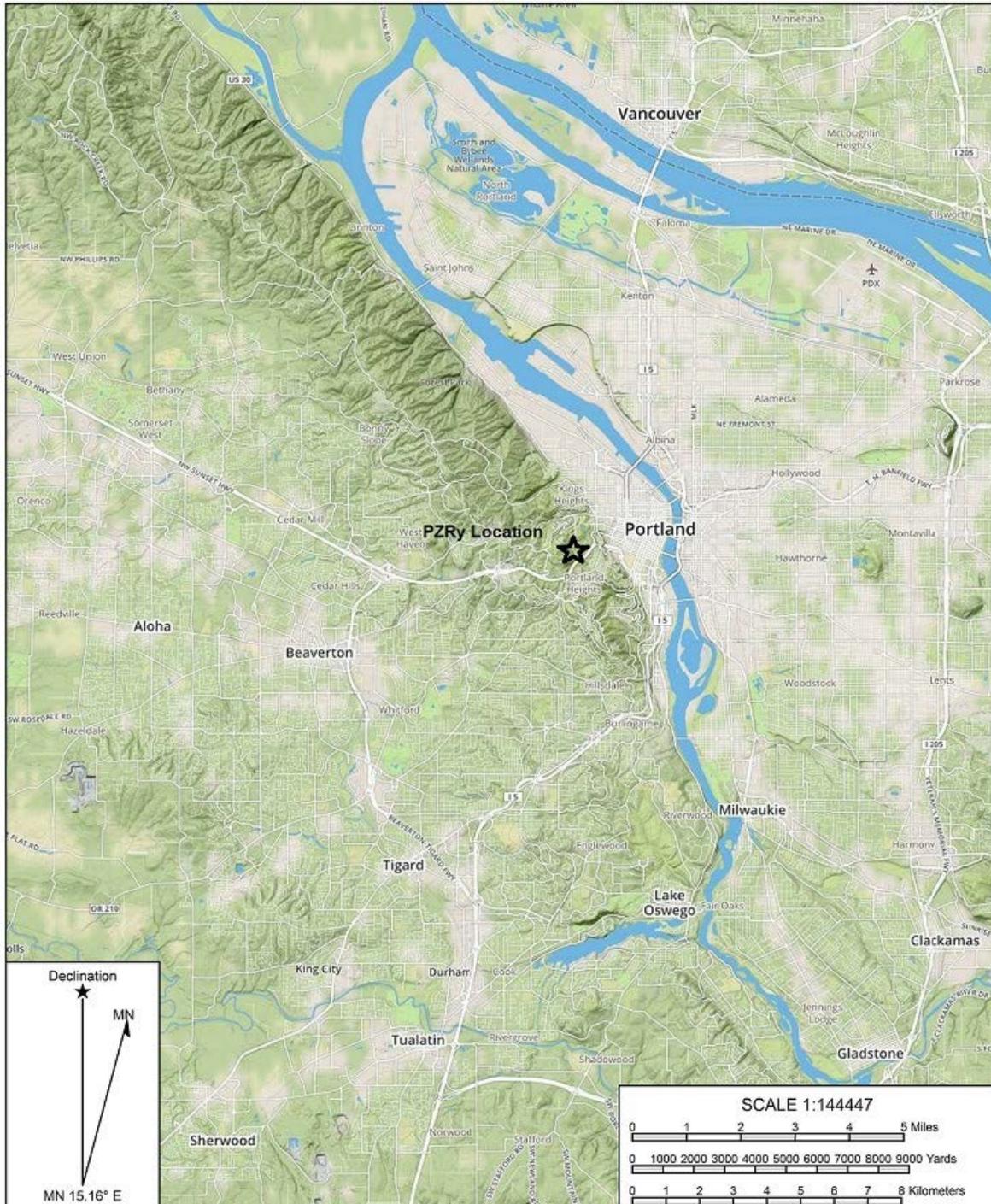
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 40

Figure 1: Regional Location Map of the Portland Zoo Railway



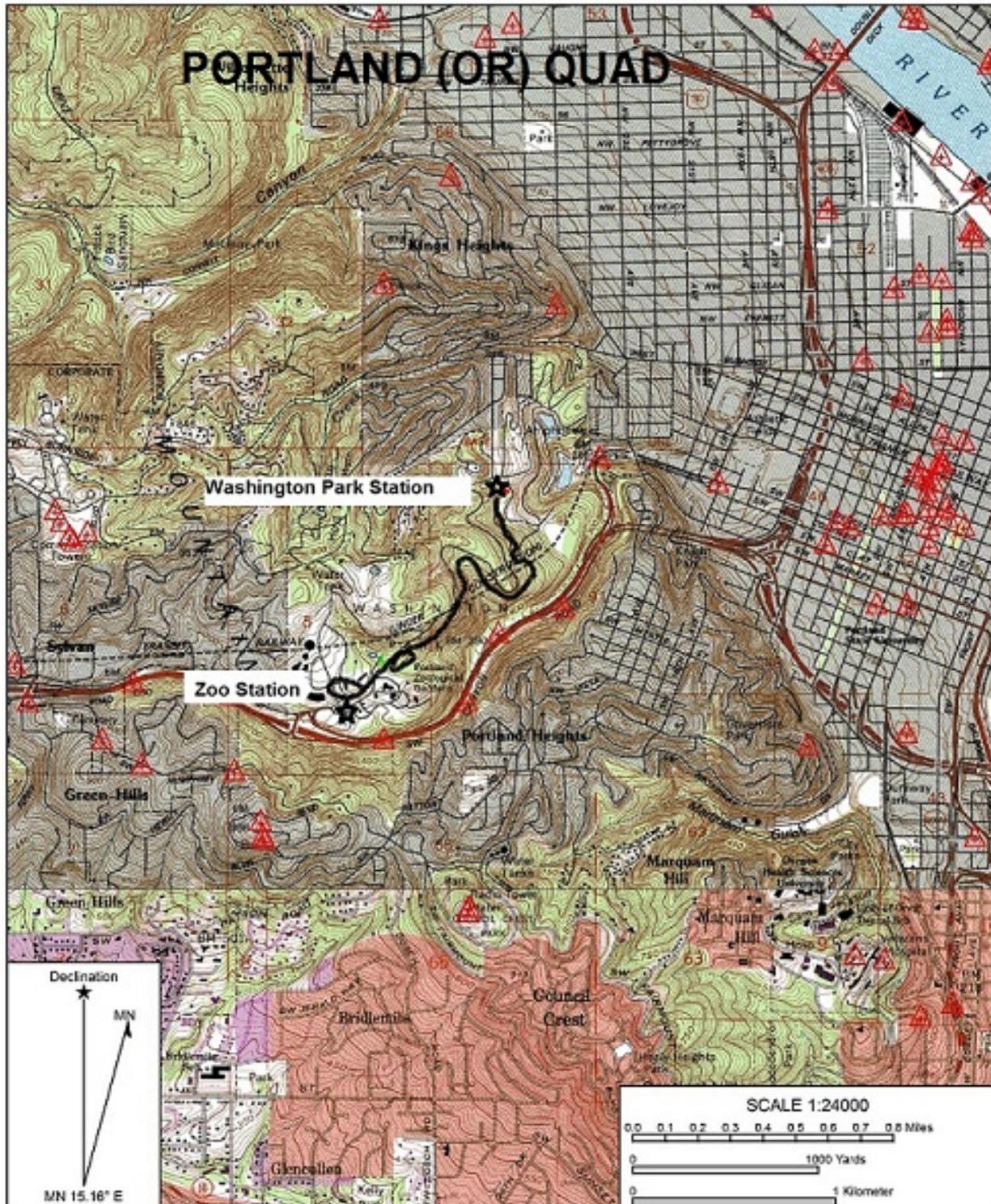
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 41

Figure 2: Local Location Map, Portland Quad.



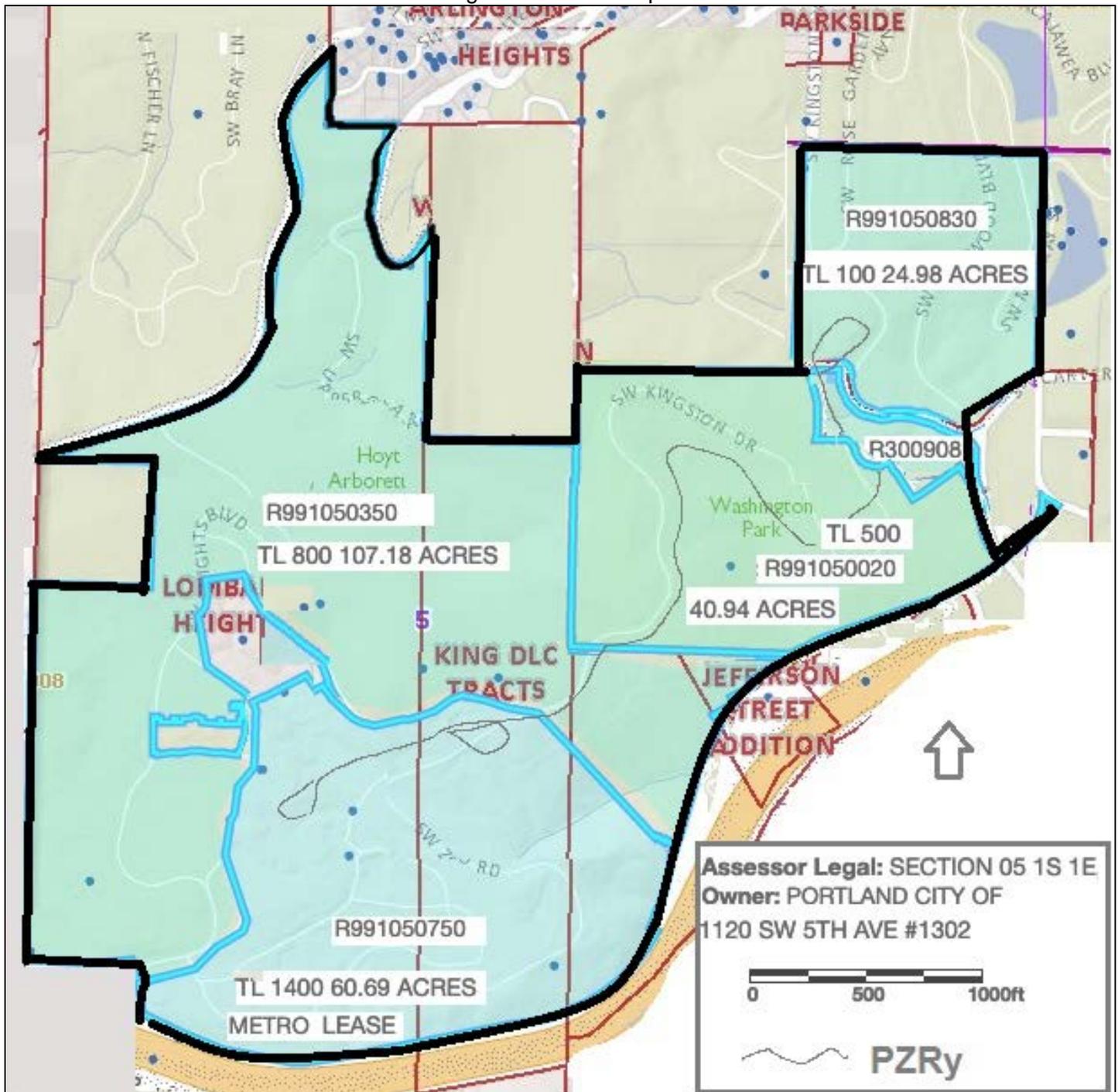
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 42

Figure 3: Tax lot map.



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District

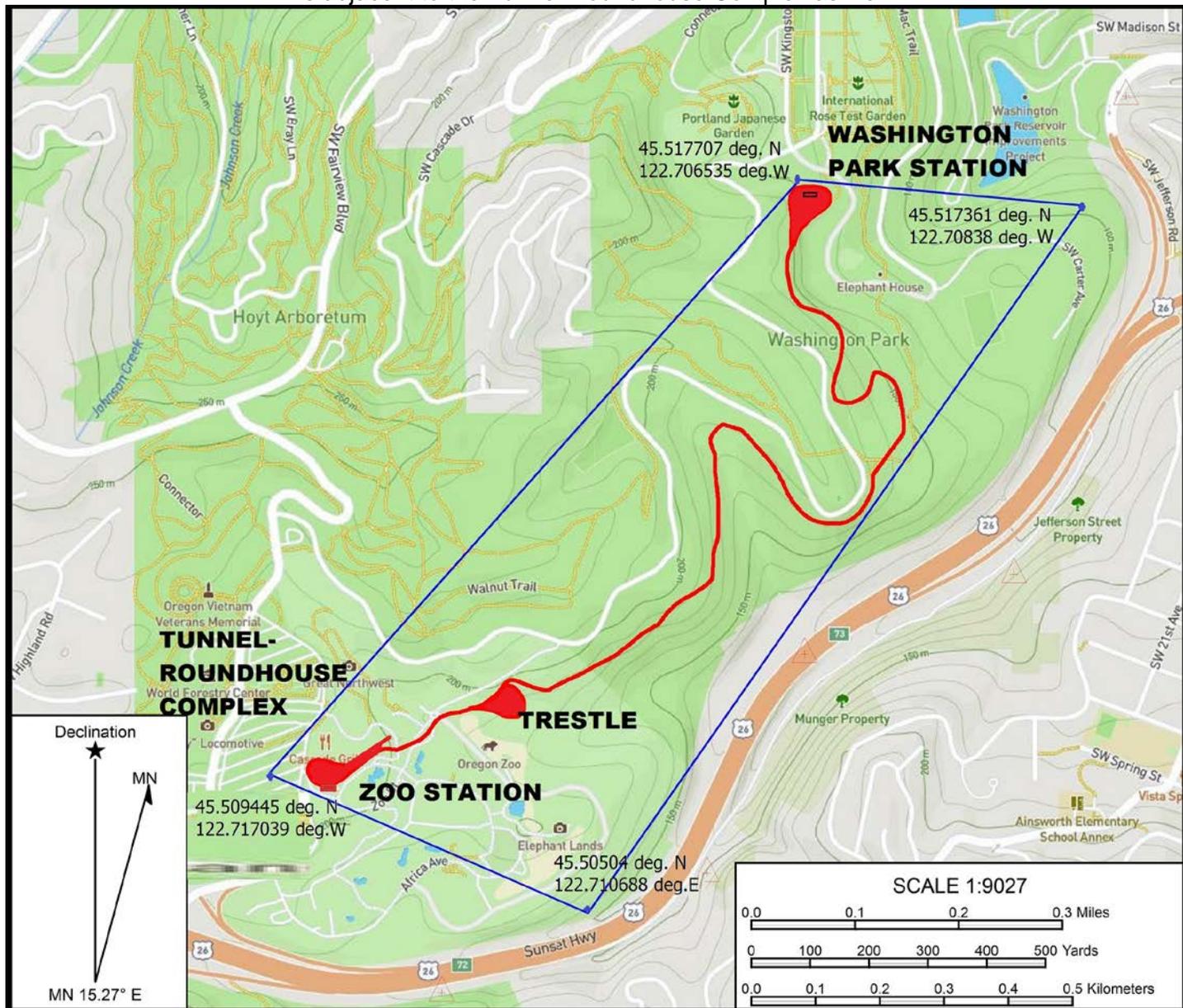
Name of Property
Multnomah Co., OR

County and State
N/A

Name of multiple listing (if applicable)

Section number Additional Documentation Page 43

Figure 4: Site Plan showing nominated area in red, with UTM rectangle in blue. Contributing and non-contributing rolling stock are located in the Tunnel-Roundhouse Complex and the non-contributing water tank is adjacent to the Tunnel-Roundhouse Complex as well.



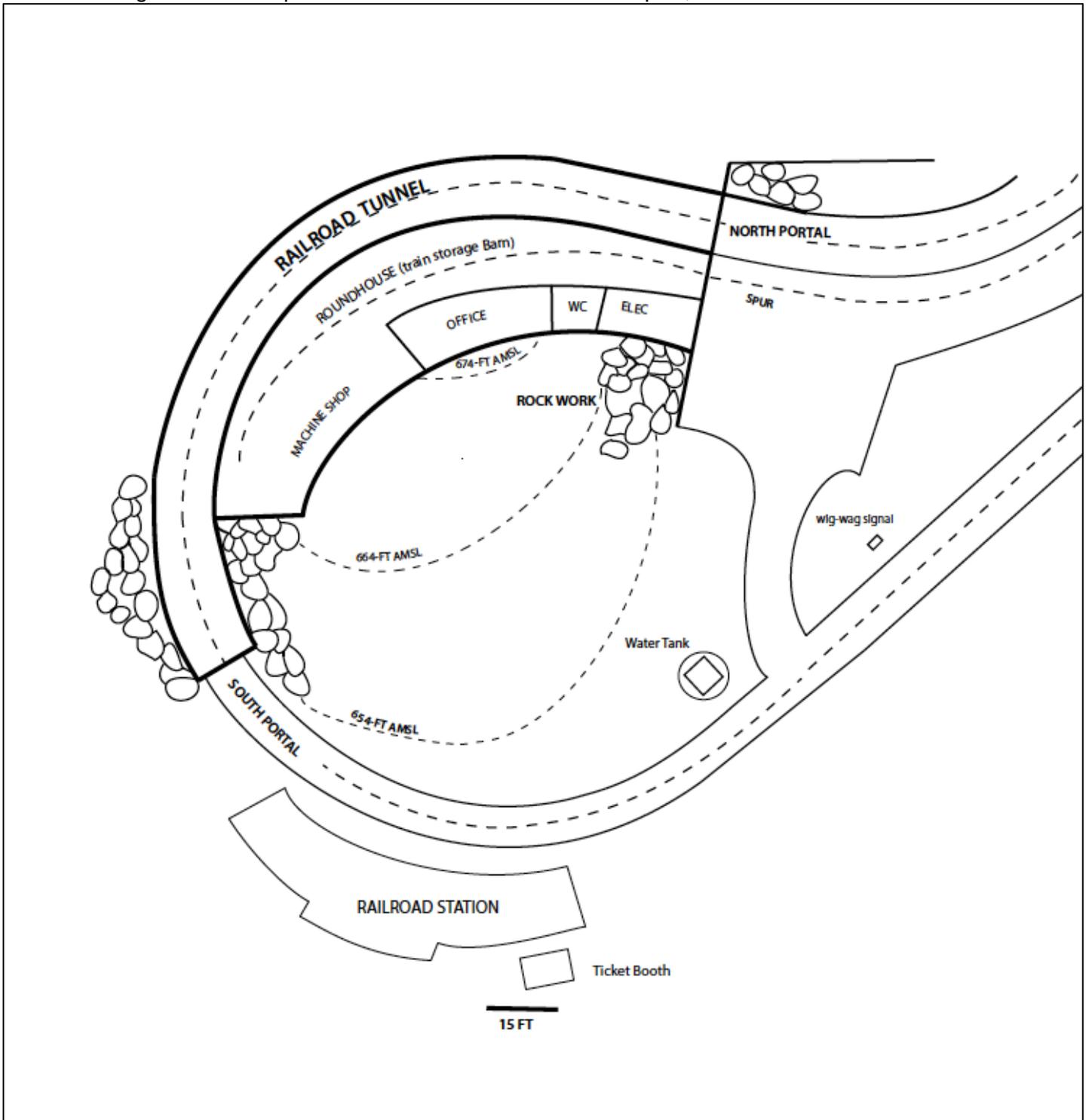
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 44

Figure 5: Sketch plan of the Tunnel-Roundhouse Complex, and New Zoo Train Station.



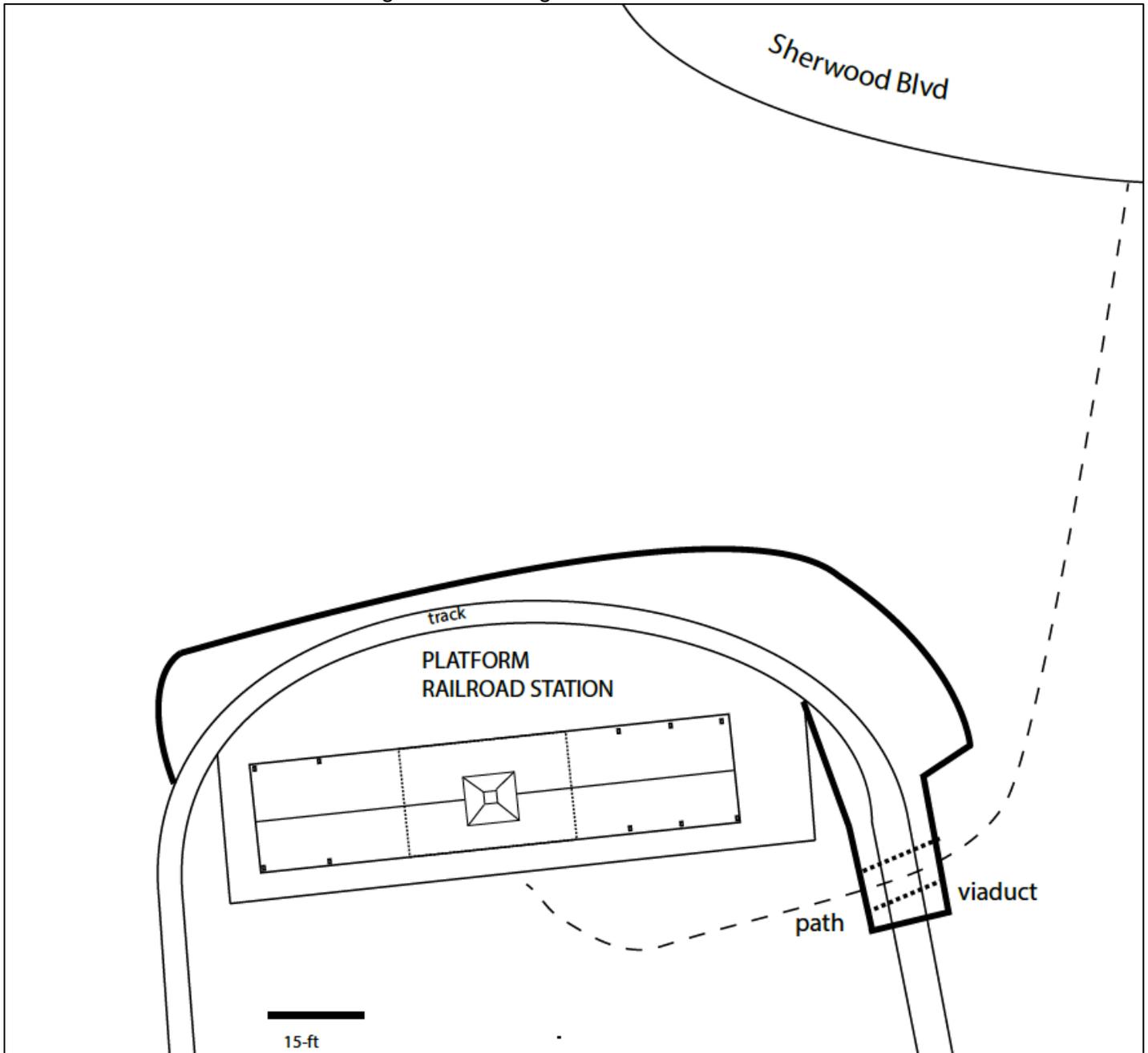
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 45

Figure 6: Washington Park Train Station.



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

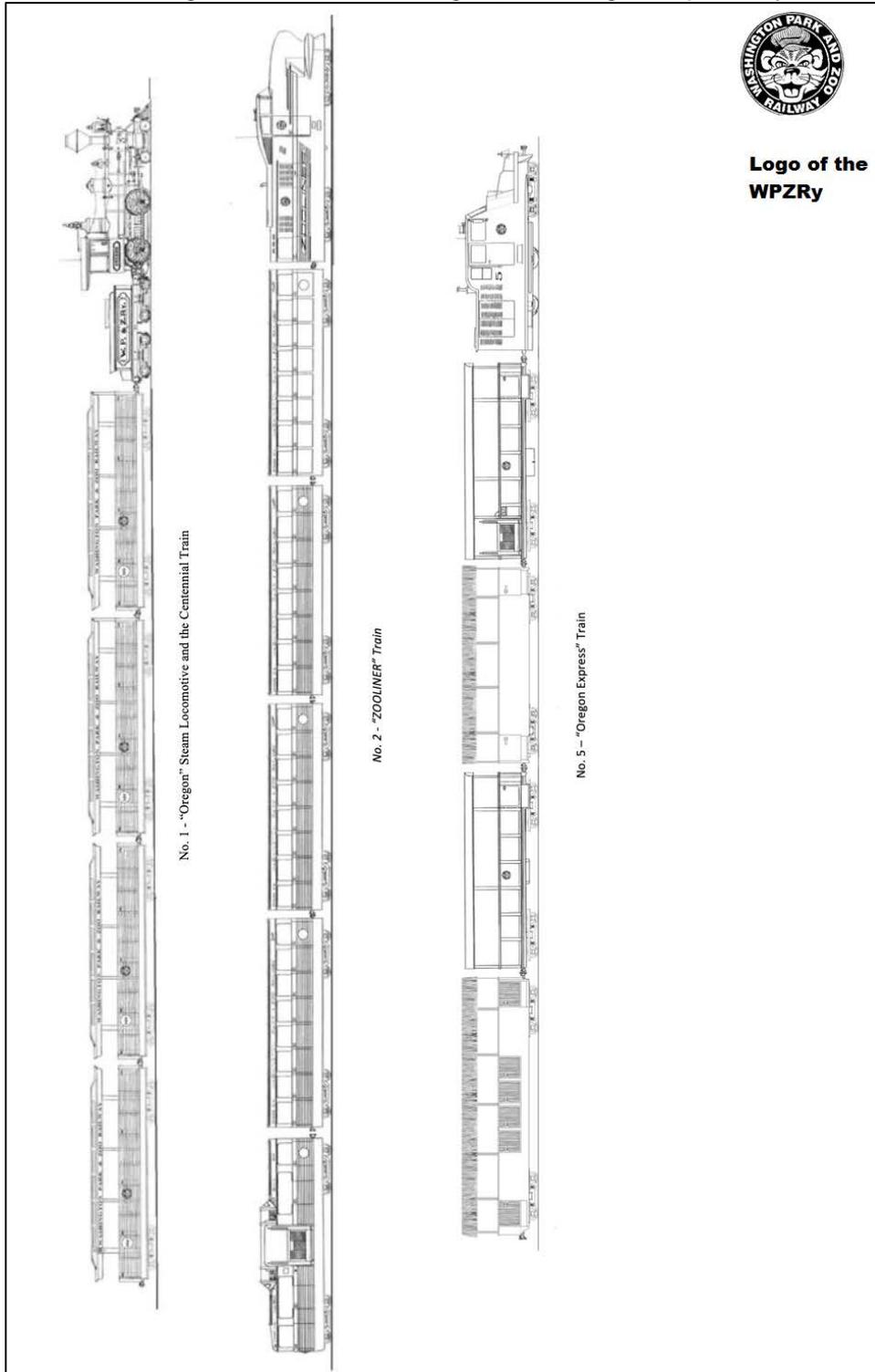
N/A

Name of multiple listing (if applicable)

Section number Additional Documentation

Page 47

Figure 9: Profile drawings of the *Zooliner*, *Oregon*, and *Oregon Express* by Jeff Honeyman.



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

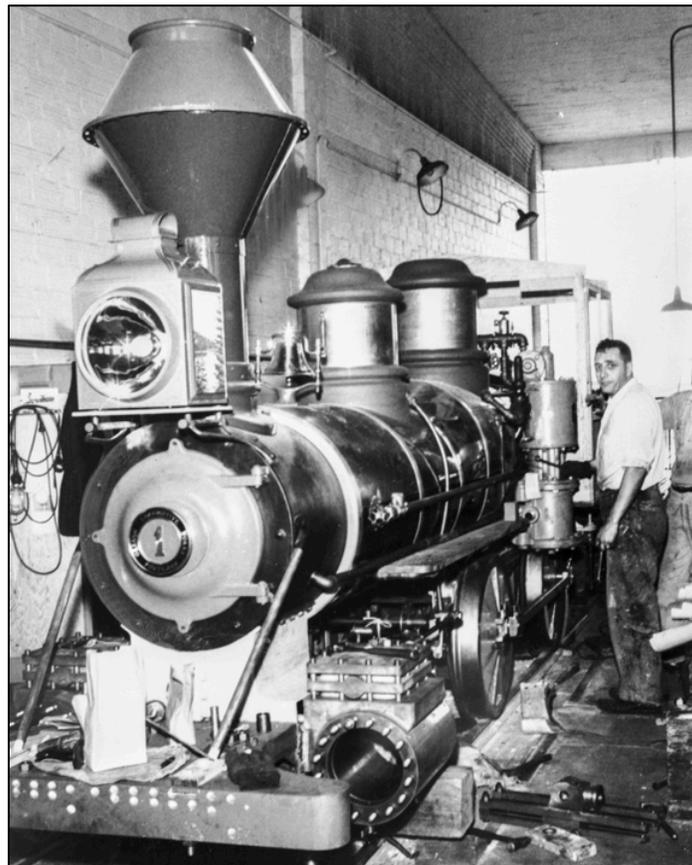
Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 48

Figure 10: Eastside Commercial Club outing, Oregon Journal photograph, June 5, 1958. OHS Photograph Neg. #55818.



Figure 11: Locomotive No. 1 the Oregon being built, Oregon Journal photograph, June 6, 1959. OHS Neg. 49712.



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 49

Figure 12: Tracks being laid for the railroad. Oregon Journal photograph, April 30, 1958. OHS Negative 49715.



Figure 13: Bull Dozer pushing scraper during the construction of the railroad. Oregon Journal photograph, August 23, 1959. OHS collection 1893.



United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 50

Figure 14: The Golden Spike Ceremony marking the completion of the track to Washington Park. The spike is driven by Major Gen. Eugene C. Cushing, commander of the 104th Reserve Infantry Division observed by Chairman of the railway Stewart H. Holbrook (left) and Jack H. Jones, railway president (right). Oregon Journal photograph, January 30, 1960. OHS collection 1893.



Figure 15: Volunteers paint the Washington Park Station. Oregon Journal photograph, May 15, 1960. OHS collection 1893.



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

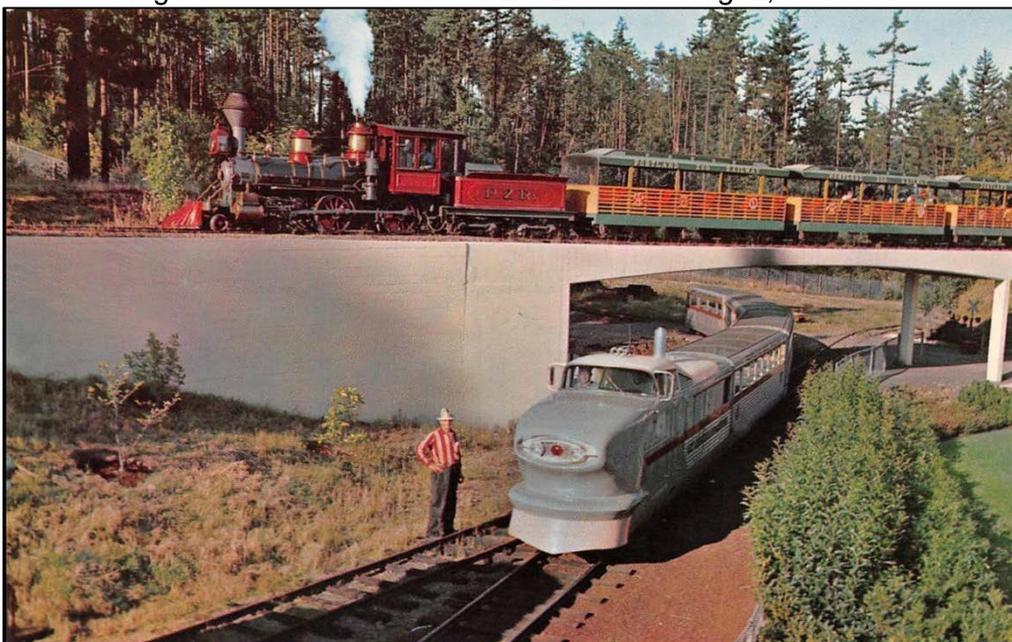
Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 51

Figure 16: *Zooliner*, May 22, 1958 (OHS call number 00135721).



Figure 17: Post card view of *Zooliner* and *Oregon*, ca 1960.



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 52

Figure 18: Robert and Ethel Kennedy, and astronaut John Glenn on the *Zooliner* (Getty image BET 515542140).



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 53

Figure 19: John Kennedy during his presidential campaign at the Oregon Centennial Celebration, 1959. The scene is a mock holdup by bandits.



Figure 20: Coach typically pulled by the Oregon.



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 54

Figure 21: Coach car 501 pulled by the *Oregon Express*.



Figure 22: Machine shop in the Tunnel-Roundhouse complex.



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 55

Figure 23: Cover of *Sunset Magazine*, June 1961 showing the Oregon.

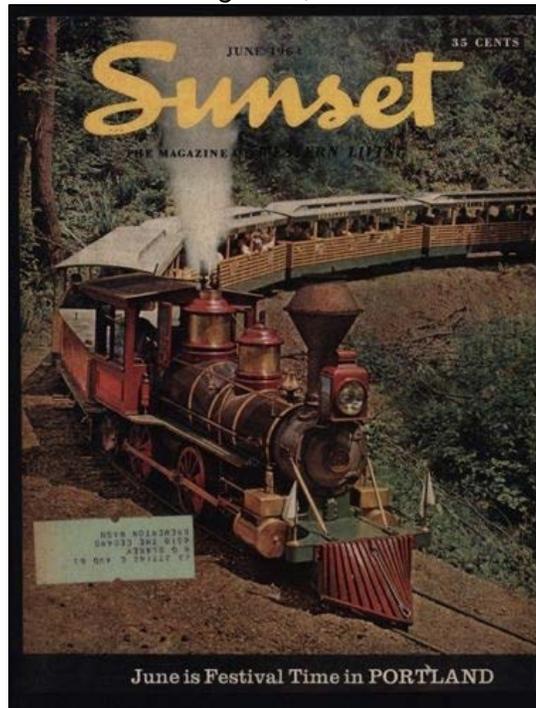
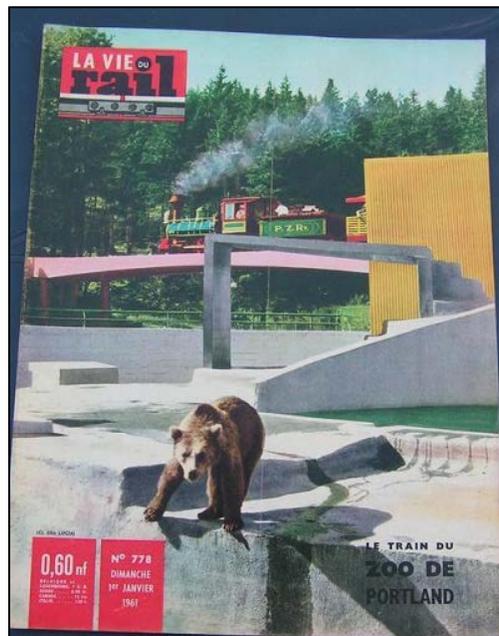


Figure 24: French Railroad magazine *La Vie Rail*, cover January 1961.



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 56

Figure 25: Engine No. 6 in front of Washington Park Station (no date).



Figure 26: Engine No. 3 (no date).



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 57

Figure 27: Rock Car (no date).



Figure 28: Side dump car (no date).



United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 58

Figure 29: Miscellaneous Cars 503 and 504.



Figure 30: Grass-roofed cars 701-702 pulled by the Oregon Express.



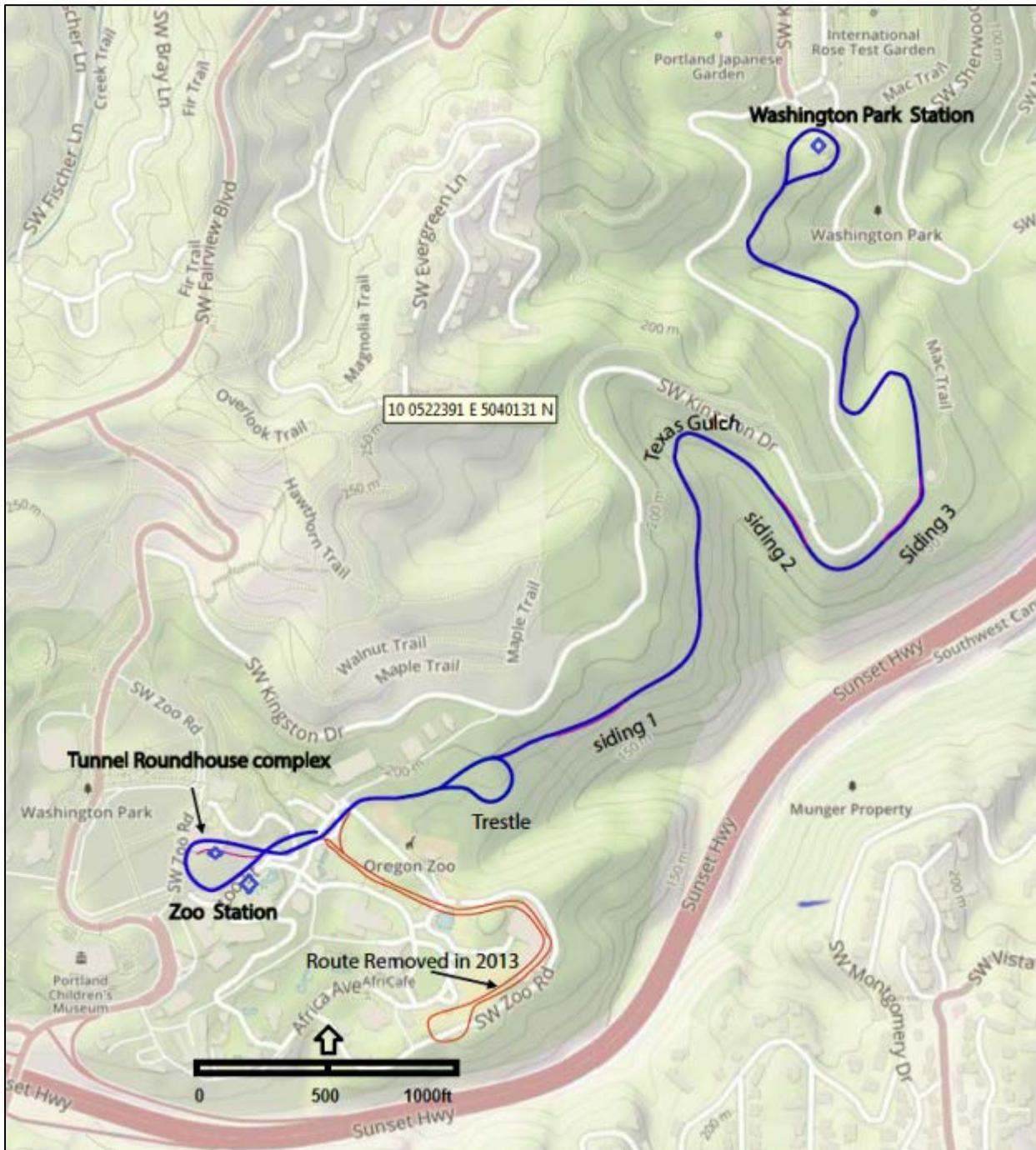
United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District
Name of Property
Multnomah Co., OR
County and State
N/A
Name of multiple listing (if applicable)

Section number Additional Documentation Page 59

Figure 31: Site plan showing route removed in 2013.



United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

N/A

Name of multiple listing (if applicable)

Section number Additional Documentation Page 60

Table 1: Recreational Zoo or Theme Park Trains from most comparable to least comparable to the PZRY.

TRAIN TYPE	ID	TRAIN	Gauge	DETAILS	Length in miles	REFERENCE*
Custom Built Trains	1	Disneyland Railroad, Anaheim, California	36"	Five steam engines and 30 cars in excellent condition. Began in 1955.	1 1/5	Michael Broggie, <i>Walt Disney's Railroad Story: The Small-Scale Fascination That Led to a Full-Scale Kingdom</i> (4th ed.).
	2	Omaha Zoo Railroad, Omaha Nebraska	30"	There are three locomotives. One of the steam locomotives was built for the zoo in 1968, the other dates from 1890.	1 4/5	Terry, Jeff (<i>February 2006</i>). "Trains at the Zoo - Part One". <i>Railfan and Railroad Magazine</i> . Newton, NJ: Carstens Publications.
	3	Calico RR, Knotts Berry Farm, Buena Park, California	36"	Two steam engines, built in 1881, park opened in 1952.	½ mile	Knotts Berry Farm website
	4	Frisco Silver Dollar, Branson Missouri	23"	This RR dates from 1962 and has six steam engines built between 1931-1941.	1.8	Website, Silver Dollar City Attractions
	5	Six Flags Over Texas RR, Arlington, Texas	36"	The park was built in 1961, has two steam engines, one from 1897, the other built in 1901.	1	Six Flags webpage
	6	Nut Tree RR, Vacaville, California	24"	Gas-powered locomotive, park was closed for many years and re-opened in 2014.	1/4	Train orders webpage, Nut Tree Park webpage
	7	Tweetsie Railroad, Boone, North Carolina	36"	On the National Register of Historic Places. Two early 20 th century steam locomotives. Park opened in 1957.	3	National Register Nomination and Tweetsie RR webpage
	8	Cedar Point & Lake Erie Railroad, Sandusky, Ohio	36"	Four steam engines built in the early 20 th century, railroad constructed in 1963.	2	Cedar Point Amusement Park webpage
	9	Little Puffer, San Francisco Zoo	22"	"Little Puffer" is a steam engine built in ca.1904. Installed in zoo in 1925.	1/3	San Francisco Zoo & Gardens webpage

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

N/A

Name of multiple listing (if applicable)

Section number Additional Documentation Page 61

TRAIN TYPE	ID	TRAIN	Gauge	DETAILS	Length in miles	REFERENCE*
	10	Champ the Train, Central Florida Zoo & Botanical Gardens	16"	Champ the Train is a streamliner design. There is a 110-ft tunnel on the route. Built in 1951 as a 1/5th scale (very small train).	3/4	Zoo webpage
	11	Zoofari Express, Santa Ana Zoo	24"	One-third scale train purchased from Santa's Village in 1998. Made to look like a steam locomotive, it was built in 1954 by Hurlbut Amusement Company	1/3	Zoo webpage
	12	Safari Train, Milwaukee County Zoo, Milwaukee Wisconsin	15"	The trains were built in 1958. One is a steam engine with nineteen coaches and the other is a streamliner with a diesel engine. Very miniature train.	1 1/4	Zoo webpage
	13	Tauber Family Railroad, Detroit Zoo	24"	This railroad first operated in 1930s with a steam engine. In the 1950s the Chrysler Corporation donated three streamlined diesel locomotives. Now there are two trains. There was a strong community effort to rebuild these in 1982-3.	1 1/4	Zoo webpage
C.P. Huntington miniature replica trains	14	Boomerang Line, Cleveland Zoological Society,	22"	There is one train, and it dates from the 1990s.	1/2	Cleveland Metroparks Zoo webpage
	15	Emerson Zooline, St. Louis Zoo	24"	Built in 1963, the rolling stock includes six gas-powered locomotives.	1 1/2	St. Louis Zoo News Release Aug. 30, 2018.
	16	Bayou Le Zoo Choo Choo, Alexandria, Louisiana Zoo,	24"	This train runs around the margin of the zoo.	2/3	Zoo webpage
	17	Zoo Train, Zoo Atlanta, Atlanta, Georgia	24"	This train has two long tunnels.	1/3	Zoo webpage
	18	Mel McKay Express at the Niabi Zoo, Illinois	24"	The Zoo opened in 1959. It has a locomotive from the 1970s.	1/2	Zoo webpage
	19	Turtle Back Zoo Train, New Jersey	24"	New trains recently replaced 1960s trains. Operates seasonally.	1/10	Historic photograph
	20	BB&T Express, Cincinnati Zoo	24"	Two trains, seven cars each. New trains built in 2011.	1/2	Zoo webpage

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Portland Zoo Railway Historic District

Name of Property
Multnomah Co., OR

County and State

N/A

Name of multiple listing (if applicable)

Section number Additional Documentation Page 62

TRAIN TYPE	ID	TRAIN	GA UG E	DETAILS	Length in miles	REFERENCE*
	21	The Livingston Train, Jackson Zoo, Jackson Mississippi	24"	The current train was constructed 1972 and replaced an older train.	1	Zoo webpage
	22	ZO&O Ry, Binder Park Zoo, Battle Creek, Michigan	24"	This zoo has the same train since the 1963.	1 1/2	<i>Battle Creek Inquirer</i> , May 7, 2018
	23	San Antonio Zoo Eagle, San Antonio, Texas	24"	Built in 1956, the railroad is known for its park vistas and river route.	2	Zoo webpage
	24	Santa Barbara Zoo Railroad, Santa Barbara, California	24"	The railroad dates from 1968.	1 1/2	Zoo webpage
	25	Zoofari Express, Hogle Zoo, Salt Lake City	24"	This is a single train that runs through the African exhibit.	1/2	Zoo webpage
	26	Z.O.& O. Express, Decatur Zoo, Illinois	24"	This railroad was built in 1984 and features a tunnel and the track goes by a lake.	1	Zoo webpage and <i>Herald Review</i> , May 4, 2018
	27	Overland Express Train, Zoo Tampa, Florida	24"	1 small train that goes in an oval with a loop. The zoo opened in 1957.	2/3	Zoo webpage
	28	Lincoln Children's' Zoo, Lincoln, Nebraska	24"	Built in 1964, the train was built first to help fund the zoo construction.	2/3	Zoo webpage
	29	Hattiesburg Zoo train, Hattiesburg, Mississippi	24"	A single train runs here.	1/2	Zoo webpage
	30	Zoo Train, Louisiana Purchase Zoo, Monroe, Louisiana	24"	A new train was purchased in 2018. The track was abandoned for ten years and was repaired backed by strong community effort.	¼?	Zoo webpage
	31	Cypress Bayou RR, Baton Rouge Zoo	24"	Zoo dates from 1970. The route is less than a mile long and includes wetlands.	7/8	Zoo webpage

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District

Name of Property
Multnomah Co., OR

County and State

N/A

Name of multiple listing (if applicable)

Section number Additional Documentation Page 63

Table 2: Companies and Oregonians Who Contributed to the effort to build the Portland Zoo Railway

COMPANY/PERSON	PROVIDED	COST	REFERENCE*
G Hazeltine, retired Southern Pacific engineer	Consultant who wrote the specifications for rails, ties, ballast etc.	donated	Miller 25
Northwest Marine Iron Works	Zoo train mechanical design	at cost, on a nonprofit basis	Clark to Bean 5/23/1957, PA
Reynolds Aluminum Company Troutdale	2500 lbs of aluminum	possibly donated	
Hirschberger Sheet Metal Company, Clackamas	body of <i>Zooliner</i>	at cost, on a nonprofit basis	Miller 66
Spokane, Portland and Seattle Railway Company	lent an engineer to assist in the work of laying out the trackage	free	Miller 39
Jack Flaucher	railroad engine bell	free	Ketell to Flasher, 1/6/1958 PA
SP & S RR	engineering expertise	unknown	SP&S to Bean 12/12/1957 PA
Southern Pacific RR	grade survey Washington Park extension	donated	Smith to Miller, 3/1/1957 PA
Cummins Diesel Sales	diesel engine for <i>Zooliner</i> ,	discounted	Clarke to Bean 5/23/1957 PA
Cummins Diesel Sales	train engineering consulting	donated	Clarke to Bean 5/23/1957 PA
Retired SP&S RR Division Engineer E.F. Kidder	engineering assistance for the Washington Park extension	offer of expertise	SP&S to Bean, 12/12/1957 PA
R. A. Huser	Kidde Fire Extinguisher system for the locomotive engine room and one Kidde portable fire extinguisher for the locomotive cab	no cost	Resolution 27612, Auditor of the City of Portland 4/9/1958 PA
The Texas Company	two tanks and two gas pumps for the zoo railway	gift	Ordinance 107870, 4/30/1958 PA
Oregon Marine Supply Company	a brass "Merry Widow" bell 8" diameter	gift	Resolution 27638, 4/30/1958 PA
Ward Mayer of Timber Structures	Glu-lam members for the platform roof at the main station and Washington Park Station	gift	Buckley to Lawrence 7/17/1958 63
Freeman Sersanous, Loggers & Contractors	use of a grader	donation	PA, Miller to PA, Buckley et al, 9/27/1958 PA
Harry Buckley	traded logs from the row for cross ties	trade	PA, Miller to Buckley et al, 9/27/1958 PA

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Portland Zoo Railway Historic District

Name of Property
Multnomah Co., OR

County and State

N/A

Name of multiple listing (if applicable)

Section number Additional Documentation Page 64

COMPANY/PERSON	PROVIDED	COST	REFERENCE*
Daily Journal of Commerce	Published a weekly list of materials, services, equipment needed	free	PA, Miller to Buckley et al, 9/27/1958 PA
KEX Radio	made a radio appeal for funds and staged three public dances with famed singer Jimmy Rogers, radio appeal	donation	Miller 51
Agency Lithograph	printed zoo train stock and envelopes	partial donation	Miller 52
Children Statewide	purchased the stock	one dollar each	Miller
Operating Engineers local 701	unloaded ballast	free	Miller 55
H. H. Peterson, general contractor	hauled the ballast to the zoo	free	Miller 55
Northern Pacific	2600 ties	free	Miller 56
C. S. Heinz Jr Construction Company, Vernonia	16,000 lineal feet of rail	discounted	Miller 56
Oregon Transfer Co.	transported 80 tons of rail	free	Miller 57
U.S. Army, Vancouver WA	200 reservists of the 104 th Infantry Reserve Division installed .65 mile of track and built a trestle	free	Miller 57
C. F. Farmer of the National Tank and Pipe Co, Simpson Timber	water tank for the steam locomotive	free	Miller 58
California Bag and Metal Company and Pacific Power and Light	staged a metal scrap drive	free	Miller 59
Charlie Parker Construction Co.	Grade preparation on the Washington Park line	discount	Miller 76
Alaska Steel Company	Donated a speeder	free	Miller 62
Westinghouse Air Brake Company	Air pump	free	Miller 74
Weyerhaeuser	built a three-unit fire-train from scrap and a surplus locomotive, contributed four locomotives with spare parts, switches, rail and spikes	free or discount?	Miller 62
Ralf Ritenour of Home Building Plan Service	Designed working drawings of the Circus Train	free	Miller 67
Oregon Bank	Office space for fundraising efforts	free	Miller 74
Terminal Company Roundhouse, Jack Jones	provided a space to build the Oregon steam engine	free	Miller 67
John Labbe, railroad historian; Ron Wicke, commercial artist; Ewart Edwards, retired SP engineer; H.S. Harvey, machinist; Chet Wheeler and Ray Pomeroy	volunteers who built the Oregon steam engine, tender, and cars	free	Miller 67

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Portland Zoo Railway Historic District

Name of Property

Multnomah Co., OR

County and State

N/A

Name of multiple listing (if applicable)

Section number Additional Documentation Page 65

COMPANY/PERSON	PROVIDED	COST	REFERENCE*
Children of Redmond and Prineville	shoveled 2,500 yards of ballast gravel into train cars to transport for use on the PZry	one dollar of stock each to each child in these towns	<i>Business Journal</i> , 3/28/1959
Cinder Hill of Prineville	gave 2,500 yards of ballast		<i>Business Journal</i> 3/28/1959
Hogan-McMurdy	provided a grader	free	Miller et al to Bureau of Parks & Rec. PA
Bert James	Logging of the route	discount	Miller et al to Bureau of Parks & Rec 9/27/1958 PA
Northern Pacific Terminal Co., Park Bureau, Coven, and Martin Transfer	use of trucks to pick up 485 ties from Vernonia		Miller et al to Bureau of Parks & Rec, 9/27/1958 PA
Kyro Social Service Club of Cleveland High	provided 28 boys for clean-up work	free	Miller et al to Bureau of Parks & Rec 10/4/1958 PA
Watson Lumber	wood for the frame of the tender	donated	Miller, Oregon Locomotive Works, Monthly Report 11/11/1958, General Zoo Correspondence PA-2
American Steel Warehouse	Steel channel for locomotive	donated	Ibid.
Haney Trucking	Hauling steel to Hillsboro	donated	Ibid.
Portland Wire and Iron	truss rods	donated	Ibid.
Wilhelm Trucking Co.	hauling the zoo train to the zoo	half price	Miller to Rudie Wilhelm, PA-2, no date.
Gordon W. Hauck	The <i>Casey Pioneer</i> locomotive	\$1000 (it was worth \$18,000)	Oregonian, March 3, 1958:27.

* PA-1 is Portland Archives, Zoo Train Correspondence Files 18/6 04-10-33. PA-2 is Portland Archives, General Zoo Correspondence, Portland (OR) Archives, General Zoo Correspondence, 116 01-0456. Miller is Ed Miller's Manuscript "Miles of Smiles: Washington Park and Zoo Railroad, A Triumph of Soot, Noise and Laughter (1998).