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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 *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an 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 entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Union Pacific Roundhouse, Turntable, and Machine Shop

other names/site number 48LA1204

2. Location

street & number 121 West 15th Street N/A not for publication

city or town Cheyenne vicinity

state Wyoming code 56 county Laramie code 21 zip code 82001

3. State/Federal Agency Certification

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

[Signature] 0-18-92
Signature of certifying official/Title Date

State Historic Preservation Office, State of Wyoming
State of Federal agency and bureau

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

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

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

Signature of the Keeper

Entered in the National Register Date of Action

[Signature] 7/24/92

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		buildings
		sites
1		structures
		objects
3	0	Total

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

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
 (Enter categories from instructions)

TRANSPORTATION - rail-related

Current Functions
 (Enter categories from instructions)

same

7. Description

Architectural Classification
 (Enter categories from instructions)

Late 19th-early 20th century American
 movement
 Other: factory/warehouse

Materials
 (Enter categories from instructions)

foundation concrete
 walls brick
 roof ethylene propylene diene terpolymer
 membrane (EPDM)
 other

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria

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

- [x] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
[B] B Property is associated with the lives of persons significant in our past.
[x] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
[D] 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 of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

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

Previous documentation on file (NPS):

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

Areas of Significance

(Enter categories from instructions)

- Architecture
Engineering
Transportation

Period of Significance

- 1931 - roundhouse
1941 - turntable
1919 - machine

Significant Dates

Significant Person

(Complete if Criterion B is marked above)

Cultural Affiliation

N/A

Architect/Builder

roundhouse - Chief Eng. Office, Union Pacific
turntable - R.W. Young Company, Chicago
machine shop - J.E. Nelson & Son, Chicago

Primary location of additional data:

- [x] State Historic Preservation Office
[] Other State agency
[] Federal agency
[] Local government
[] University
[] Other

Name of repository:

Union Pacific Roundhouse, Turntable, and Machine Shop Laramie County, Wyoming
Name of Property County and State

10. Geographical Data

Acreage of Property 11.34 acres

UTM References

(Place additional UTM references on a continuation sheet.)

1

1	3
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5	1	5	4	4	0
---	---	---	---	---	---

4	5	5	3	0	0	0
---	---	---	---	---	---	---

Zone Easting Northing

3

1	3
---	---

5	1	5	7	5	5
---	---	---	---	---	---

4	5	5	2	9	4	0
---	---	---	---	---	---	---

Zone Easting Northing

See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Robert G. Rosenberg, Historian

organization Rosenberg Historical Consultants date January 29, 1992

street & number 739 Crow Creek Road telephone (307) 632-1144

city or town Cheyenne state Wyoming zip code 82009

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items

(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name _____

street & number _____ telephone _____

city or town _____ state _____ zip code _____

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. 470 *et seq.*).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 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 Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

**United States Department of the Interior
National Park Service****National Register of Historic Places
Continuation Sheet**Section number 7 Page 1Union Pacific Roundhouse, Turntable, and Machine Shop
Laramie County, Wyoming

Description

The Union Pacific roundhouse, turntable and machine shop are located in the westcentral portion of the Union Pacific rail yards in Cheyenne, Wyoming. The impressive stone Union Pacific Depot with its 118-foot high clocktower is located only a short distance to the northeast of the roundhouse and dominates the skyline in that direction. The depot, constructed in 1886, is currently enrolled on the National Register of Historic Places and is included in the Downtown Cheyenne Historic District. The Union Pacific machine shop, a large rectangular-shaped brick building constructed in 1919, is located to the southeast and represents another early component of the Union Pacific rail facilities. The roundhouse was constructed in 1931 and is a massive wedge-shaped brick building with a three-tiered roof. The north and east elevations (using the architectural convention of "Plan North") are composed of large window panels. The south elevation faces the turntable and is composed of double-leaf wooden engine doors. The west elevation was originally a interior firewall. This structure is the last surviving seven-stall wedge of the circular 48-stall roundhouse that formerly surrounded the turntable. The roundhouse currently houses a collection of early steam and diesel locomotives owned and maintained by the Union Pacific Railroad. The 126-foot diameter continuous span type turntable and control house were constructed in 1941 and replaced a smaller turntable dating from 1911. The turntable has a rail-embedded circular concrete apron (approximate diameter 300 feet) and is considered an integral component of the roundhouse facility. The roundhouse, turntable, and machine shop are currently in the process of being rehabilitated to near original condition by the Union Pacific Railroad Company through the National Park Service Historic Preservation Certification program. There are a total of two buildings and one structure within the district boundaries, all of which are considered contributing elements to the district. Because of the rehabilitation program, the complex possesses good physical integrity despite the razing of portions of the buildings. The district is located within the Cheyenne rail yards and therefore retains good integrity of setting. Finally, the buildings have operated continuously since construction, serving the primary function of engine maintenance. The buildings and structures within the district are described below. Sequential numbers correspond with locations on the sketch map, and contributing structures are shaded.

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Union Pacific Roundhouse, Turntable, and Machine Shop
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Description (continued)

The wedge-shaped brick roundhouse (1) was part of a 20-stall addition for passenger engines that was constructed on the north side of the turntable in 1931. It represents the most easterly third of the original component. Therefore, the west elevation was originally an interior fire wall. The north and south elevations are respectively convex and concave in general outline. The straight walls are 125 feet in length. The curved walls are actually divided into 7 straight segments or chords. Each segment in the north elevation is 29'10". The total length of this wall from west to east is about 216'. Each segment in the south elevation is 16'5-5/8". The total length of this wall from west to east is about 122'6". The building is constructed with a three-tier roof, ranging in height from 23'9-1/2" to 42'5" (top of parapet). The walls of the building are constructed with brown brick masonry reinforced with 12" steel columns encased in concrete that rest on concrete subterranean piers. The roof is supported with a system of 12" x 12" wooden timbers, also resting on subterranean concrete piers. The building has a poured concrete floor. The roof is constructed with a system of 4" x 14" wooden joists covered with wood sheathing and built-up asbestos roofing painted with a reflective silver coating. During rehabilitation the original roof was covered with 3" rigid insulation board and an ethylene propylene diene terpolymer (EPDM) membrane roof system. Seven metal smoke jacks protrude from the roof and are spaced at regular intervals over the seven engine bays. Only four will be functional ventilator units and are designed to vent the stacks of the steam locomotives. The east and west walls are finished with a stepped parapet capped with tile so that the actual roofline is not visible. The curved north elevation has a boxed cornice consisting of wood trim, molding, and fascia. The soffit consists of narrow tongue and groove wood paneling. All woodwork has been replaced and repainted during rehabilitation.

The roof tiers that are visible on the south elevation were originally composed of all clerestory windows. In the 1940s, half of the windows were removed and replaced with 1" x 6" tongue and groove horizontal siding, and the remainder were replaced with fiberglass panels. The fiberglass panels have been replaced with windows of original configuration during the current rehabilitation. The south elevation also includes the engine bay

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Union Pacific Roundhouse, Turntable, and Machine Shop
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Description (continued)

doors. In about 1970, the original wooden double leaf doors for each bay were replaced by metal overhead doors, and an extension was built onto one bay to accommodate a larger engine. During rehabilitation, new wooden doors have been constructed and installed that conform to the original design. Each door leaf has a 24-light window occupying the upper third, with four exposed metal strap hinges extending the width of the door. The doors open outward, and wooden posts and hardware have been installed to lock the doors in an open position. The extended bay has been scaled down and retains a metal overhead door. However, it has been painted the same color as the other wooden doors and trim and is inobtrusive.

The roundhouse was built with large banks of windows to take advantage of natural light. Only the west elevation lacks windows, since it was originally an inside firewall. The original roundhouse had large, multipaned wood sash glazed window units, but due to breakage, the glass was removed and replaced with translucent fiberglass panels in 1978. The fiberglass panels were removed during rehabilitation and replaced with double insulated glazed window units consistent with the original plans. The east elevation has five banks or segments of three recessed side-by-side windows with concrete sills. Each window typically consists of a 20 over 20-light double-hung unit. A second set of windows of the same configuration are aligned on the second level or story, separated by a wooden rail and trim. The varying height of the tiered roof necessitates either omitting or shortening the upper window units. There is a sliding wooden mandoor set near the north end of this elevation, which necessitates shortening the ground level windows above this entrance. There is a corresponding sliding door set in the windowless west elevation. There is also a double-leaf wooden door located near the northwest corner of the north elevation. The leaves open outward and can be secured in this position by means of door posts and hardware. Each door post is numbered according to its original bay number.

The curved north elevation is divided into seven banks or segments of four side-by-side windows with concrete sills. These windows had also been covered with translucent fiberglass panels, which have been removed during rehabilitation and replaced with double insulated, multi-paned wood sash glazed window units. Each window typically consists of a 20 over 20-light

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Union Pacific Roundhouse, Turntable, and Machine Shop
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Description (continued)

double-hung unit. A second set of windows of the same configuration are aligned on the second level or story, and are separated by a wooden rail and trim.

Finally, the windows in each tier of the clerestory areas of the south elevation consist of seven regularly spaced side-by-side 20-light units.

The interior of the roundhouse is open from the concrete floor to the ceiling, with the exception of wood plank catwalks running along each clerestory level accessed via steel ladders secured to the brick masonry walls. The entire system of structural support wooden timbers and roof joists is fully exposed. Each engine stall consists of an elongated subterranean concrete pit running nearly the length of the building. A set of tracks straddles each pit so that the engines could be positioned over the pits for maintenance. The building was originally heated with steam, and remnants of the steam pipe radiators are located below window level on the north elevation. Twelve gas-fired heating units have been installed during rehabilitation to replace the steam heating system. They have been suspended from the ceiling and spaced at regular intervals around the interior walls. The interior is lighted with regularly-spaced rows of electric lights suspended from the ceiling. The building has been rewired during rehabilitation with new suspended light fixtures, but the existing light fixtures have also been retained.

The turntable (2) was constructed by the R.W. Young Company of Chicago in 1941 and is a 126-foot diameter continuous span type turntable that is fully operable. The turntable is surrounded by a 300-foot diameter rail-embedded circular concrete apron. A central east-west set of tracks provided access to the turntable. The turntable rotated within a recessed circular concrete-lined pit. The engine and tender were then turned to match the set of tracks that led to its assigned bay in the roundhouse. The turntable is electrically powered via overhead wires attached to a curved steel truss collector arch and controlled by a small wooden operator's cab with a sliding door in the northeast elevation and built onto the side of the rotating turntable. The deck of the turntable consists of wood planking and wood supports set on steel beams. The turntable also has a metal guardrail. The turntable has also been refurbished and repaired during rehabilitation.

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Union Pacific Roundhouse, Turntable, and Machine Shop
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Description (continued)

The machine shop (3), also known as a backshop, is a brick masonry building resting on a concrete foundation and floor. It was constructed in 1919 and represents the southern half of the original building that was partially razed in 1978-1979. The building is oriented on a northwest-southeast axis to correspond with the street grid of the City of Cheyenne and the original Union Pacific track alignment. The framework of the building consists of steel columns anchored in subterranean concrete piers. The overall dimensions of the building (using "Plan North") are 167'9" N-S by 194'-10-1/2" E-W. There is a one-story brick office addition built onto the east elevation that is 74'9" N-S by 30' E-W. The tiered roof, consisting of a monitor roof and shed roofs, is supported with steel trusses covered with wood sheathing. Current rehabilitation plans call for the installation of a new ethylene propylene diene terpolymer (EPDM) membrane roofing system and sub-roof over the existing roof. The north elevation of the building was formerly within the interior of the building. It has been replaced with a precast ribbed concrete wall with a stepped parapet that approximates the proportions of the tiered roof. Openings in this elevation are restricted to a single overhead roll-up garage door and a metal mandoor.

The opposing or south elevation is original and consists of brown brick masonry walls with a stepped parapet capped with concrete sills, decorative brickwork, and regularly-spaced elongated decorative cement designs. There are three tiers or sections (excluding the office addition) rising progressively from one to three stories from the southeast to southwest corner. The three-story segment rises to a maximum height of 62'5" and is capped with an 8'-10" high monitor or penthouse. The three-story segment extends 7'4" beyond the building line of the other two sections on this elevation. Each of the three building sections is divided into recessed window segments, each consisting of three banks of 40-light windows with metal frames and cement sills. The top and bottom rows of panes are stationary, but the three intervening ten-light units tilt outward, pivoting from their center when opened. The number of tiers of windows corresponds with the number of stories in each building section in this elevation. Window bays on the ground level have been modified by scaling down the height of the openings and filling the resulting gap with red bricks. The sash-type windows have been removed and replaced with glass blocks with two pairs of two-light windows set in the middle of the glass

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Union Pacific Roundhouse, Turntable, and Machine Shop
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Description (continued)

blocks. It is not known when these modifications took place. All broken glass in the upper stories will be replaced during rehabilitation, and operable windows will be welded shut and made weathertight. There is also a mandoor located near each corner of the south elevation.

The east elevation has a one-story brick office addition that occupies the north third of this elevation. It has a gently sloping shed roof and a cement capped parapet on the south elevation. The east elevation of the addition consists of double and triple units of 5 over 5-light sash-type window units with metal frames and cement sills. There are also four 15-light window units in this elevation of the addition. A steel ladder mounted to the brick wall leads to the roof of the addition. There is a mandoor set into the south elevation of the addition. The remainder of the east elevation consists of four regularly-spaced overhead roll-up garage doors of identical proportions. They serve as engine bays and are matched by similar bays on the opposite or west elevation. Four sets of tracks correspond with these bays and allow ingress and egress of engines through the building for maintenance.

When the building is viewed from the east elevation, the tiered roof is clearly visible. It consists of a monitor roof on the three-story segment and two shed roofs (excluding the addition) with intervening clerestories consisting of rows of sash-type windows with metal frames. The clerestory of the monitor has wood siding in the intervening areas between the windows and on the endwalls. The shed roofs also have sawtooth skylights with fiberglass panels. Outside steel ladders provide access to each tier or level of the roof.

The west elevation of the building is divided into seven equal three-story segments by brick pilasters. Four of the ground level segments consist of overhead roll-up garage doors that act as engine bays. Otherwise, each of the seven segments consists of three recessed window bays with three sets of 45-light sash-type windows set in metal frames for each story. The pattern of each set of windows from top to bottom consists of one, two, three, two, and one row of lights. Current renovation plans call for replacing all broken windows and welding shut operable units and making them weathertight. Ground level windows will consist of obscure wire glass panes.

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Description (continued)

The interior of the machine shop is generally open from floor to roof so that the steel framework and roof truss joists are clearly visible. The single exception is the existing steam generating plant located in the northwest corner of the building, which has been boxed off. Renovation plans call for removing the steam supply lines and abandoning the steam boilers. The steam heat will be replaced with regularly-spaced gas-fired heater units. The south half of the interior consists of a recessed pit area with raised steel platforms and four sets of raised rails for engine repair. The northeast quarter of the interior consists of an open steam locomotive repair shop area with a concrete floor slab. Renovation plans also consist of installing a new 2' x 4' suspended acoustical tile ceiling grid at a height of 24 feet from the floor. A set of new steel joists with open webbed joists will be installed to support the ceiling grid. The existing regularly-spaced light fixtures will be retained.

The office area will also be remodeled during renovation to include new interior walls with steel studs, and suspended acoustical tile ceilings. The new layout consists of a manager's office, a foreman's office, a file room, a tool room, a lunch room, restrooms, lockers, and showers.

The renovated machine shop, which was formerly used as a diesel repair shop, will now serve as a steam locomotive repair shop.

Statement of Significance

The Union Pacific roundhouse, turntable, and machine shop are historically significant due to their unique engineering attributes designed for a single function, the maintenance and storage of steam locomotives. The facilities were laid out to bring these engines off the mainline onto a specially designed turntable that directed them into specific stalls. The stalls were equipped with subterranean pits for maintenance and also housed the engines used on this division of the Union Pacific Railroad. The present seven-stall roundhouse (stalls 29-35) consists of the last remaining wedge of the 48-stall roundhouse that once encircled the turntable and was the largest engine terminal ever built in

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Union Pacific Roundhouse, Turntable, and Machine Shop
Laramie County, Wyoming

Statement of Significance (continued)

the western United States. Furthermore, it is the only roundhouse and turntable still in use by the Union Pacific Railroad system; only a small number still function in the United States. The roundhouse, turntable, and machine shop are also significant due to their relationship to the continued development of the first transcontinental railroad and its effect on the formation and growth of Cheyenne and the Territory and State of Wyoming. The current rehabilitation conducted under the National Park Service's Historic Preservation Certification program is faithfully restoring the roundhouse, turntable, and machine shop, allowing them to continue to function in their original capacity for engine maintenance and storage. They are therefore exceptional examples of early 20th century railroad transportation and maintenance in the age of steam and carry on the tradition and technology of 19th century rail transportation.

Historical Background: The existence of the Union Pacific roundhouse, turntable, and machine shop and their location are a result of a chain of historical events dating from the building of the first transcontinental railroad through southern Wyoming Territory in 1867-1868. The motivation for building a transcontinental railroad was to provide a safe, reliable, and speedy means of passenger and freight travel to bridge the gap between the settled areas on the West Coast and the eastern portion of the United States. In between lay a vast expanse of largely uninhabited plains and mountains. The railroad would not only provide a link between east and west but also serve as the catalyst for settlement and development of the western territories. Both stagecoach and covered wagon travel in the territories were subject to the constant danger of Indian raids. The length of time involved in western emigration and freight deliveries via wagon trains was a deterrent to western development. "It took six weeks to haul a wagon of freight from the Missouri River to Salt Lake, and twice as long to California." All transportation west of the Missouri River was by wagon, and the Missouri River cities were the westernmost supply bases for manufactured goods. Water sources were unreliable in many areas along emigrant and stagecoach trails, and many travelers complained of alkali poisoning.

Finally, in 1853, a bill was passed to appropriate funds for explorations of different routes for a railway to the Pacific. The Corps of Topographical Engineers conducted surveys for five main routes and

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Union Pacific Roundhouse, Turntable, and Machine Shop
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Statement of Significance (continued)

various alternatives, stretching from Canada to Mexico between 1853 and 1856. Despite delays caused by the widening rift between the North and the South and the subsequent Civil War, the Union Pacific Railway Act of 1862 was passed by Congress. Without southern representation, a more northerly route was assured, although a southern route may have been the shortest and least expensive to build. Railroad construction did not begin in earnest until after the close of the Civil War. The final route that was approved on November 23, 1866, closely paralleled the Overland Trail through what was to soon become southern Wyoming Territory.

The grading and track laying progressed at a steady rate under the management of the Casement Brothers. By October 19, 1867, the tracks reached a point 32 miles east of the site of Cheyenne. Until the completion of the railroad tracks to Cheyenne, all supplies were transported by wagon from the Missouri River. During the peak of construction in the summer of 1868, an estimated six thousand men were employed at various tasks building the Union Pacific Railroad. Meanwhile the Central Pacific Railroad had a large work force building eastward from Sacramento, California.

The two railroads joined at the appointed location at Promontory Point, Utah, and the famous golden spike was driven on May 10, 1869. This event commemorated the completion of the transcontinental railroad, an unsurpassed engineering achievement.

The benefits derived from this railroad were many and immediate. Population grew rapidly in cities selected as railway terminals. Railroad transportation opened up great areas west of the Mississippi. Western land grant acreage and government homestead laws provided the motivation to utilize this transportation system. The Union Pacific traversed much good grazing land and the mineral rich areas of southern Wyoming Territory. The presence of such a transportation system spurred the development of these natural resources.

On February 26, 1868, the railroad voted to establish machine shops for the whole interior route of the railroad at various strategic points. A later railroad decision of major importance for Wyoming was as follows: "...resolved, that Cheyenne was located under the sanction of the Union Pacific Railroad, with the intention of making it the location of their

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Union Pacific Roundhouse, Turntable, and Machine Shop
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Statement of Significance (continued)

repair and other shops, and it is their intention to make there the principal depot and repair shops of the company, for the eastern base of the Rocky Mountains." The site of Cheyenne was a convenient midway point along the Union Pacific mainline between the cities of Omaha and Ogden. Secondly, it was at the eastern base of the Laramie Range, where it was necessary to assist and repair engines and rolling stock for the steep haul to the 8,200 foot summit.

Cheyenne seemed to grow up almost overnight. The tracks reached the site on November 13, 1867, and the end-of-track town already had a population of 4000 people, a town government, and two daily newspapers. Fort D.A. Russell and the quartermaster storehouses at Camp Carlin were established at Cheyenne and became the most important military base in the Rocky Mountain region, supplying military posts throughout the region.

The Union Pacific Railroad constructed repair shops and a 20-stall stone roundhouse and turntable (60 feet in diameter) in 1869. The "elegantly designed" enginehouse was the first permanent structure in Cheyenne. However, the large stone depot was not constructed until 1886, and the extensive Division machine shops were not built until 1890. Also, in that year a new 10-stall brick roundhouse was built on the north side of the turntable opposite the original stone roundhouse. In 1901, ten additional brick stalls were added, making a total of 40 stalls and completing the circle. In 1904, a portion of the stone walls of the original roundhouse were rebuilt. There was a 60-foot diameter turntable in place serving the roundhouse. In 1909, three stalls on the west end of the north half of the roundhouse were extended in length to accommodate longer engines.

In March 1910, the original stone portion of the roundhouse was torn down. The following year, an 18-stall brick roundhouse with a concrete foundation was constructed by George B. Swift and Company to replace the stone portion that had been razed. At the same time, a new 100-foot diameter Warren pony-truss type turntable, large enough to handle the engines of the 700 class and operated by electricity, was constructed to replace the original 60-foot turntable. As the steam engines on the Union Pacific line became larger, it was necessary to periodically enlarge and improve the roundhouse facilities. In 1919, ten stalls were extended to

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Statement of Significance (continued)

accommodate the longer engines.

In June of 1918, the Union Pacific Railroad announced that it would build a new machine shop along with several other major improvements to the Cheyenne yard at an estimated total cost of \$1,750,000. The construction program had been delayed because of World War I. Because of the heavy demands on locomotives during the war, there were more repairs to be made on the "aging fleet." In July, 1918, the \$600,000 general contract for the new machine shop was granted to Joseph E. Nelson & Son, Chicago, Illinois. Actual construction began in late August of that year. The machine shop was to be constructed just west of the existing machine shop, on the site of the original 1868 boiler shop. Overall plans included the massive machine shop, an adjoining roundhouse (not built until 1929-1931), a new power plant, paint shop, sand house, oil house, store buildings, wash rooms, bunk houses, and dining and boarding facilities. Plans as of 1919 called for the retention of the old tank shop and the north half of the roundhouse (built in 1890 and 1901). The old machine shop (on the east) built in 1889 was to be retained as a boiler shop.

Construction on the new machine shop progressed throughout the winter of 1918-1919 and by March of the following year, the steel superstructure was being erected. Work on the machine shop was completed during the summer of 1919. The new facility measured 410 feet by 223 feet and was one of the largest buildings ever constructed in the Union Pacific system. It consisted of sixteen huge erecting bays, each 73 feet long, served by a giant overhead 250-ton Whiting travelling crane. This machine shop would be the center of much of the Union Pacific's maintenance and rebuilding effort through the end of the steam era. The new shop was topped with a 50' flagpole, in use for sixty years.

The machine shop contained a complete erection facility in the north half for assembly and disassembly of all types of locomotives, while the south half was occupied by machines. It had separate departments for light and heavy machine work, welding, stripping, cleaning and painting, repair of wheels, springs, flues, tanks, sheet metal and electrical components.

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Union Pacific Roundhouse, Turntable, and Machine Shop
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Statement of Significance (continued)

By 1929-1930, the machine shop was connected to the roundhouse via the new 10-stall brick addition on its east side. The Union Pacific conducted "light running repairs" in the roundhouse, and heavy repairs in the machine shop. The machine shop was divided into sections of machine gangs, i.e., large engine lathes, turret lathes, boring, drilling, and milling machines, planers and grinders, all for heavy work. Other sections included rod gang, repair gang, driving box and wheel gang. At the rear of the structure was a large tool and parts supply room. Engine boilers and frames were moved into the bays by the 250-ton overhead Whiting crane. There were also three 20-ton cranes for moving heavy parts, and a 10-ton outrigger for miscellaneous lifting.

In 1929, the Union Pacific Railroad began another ambitious program of yard improvements at Cheyenne. The plans included remodeling the depot, enlarging the yard, and more importantly, expanding the existing roundhouse. Ten new stalls were built on the east side of the turntable. Five of the stalls were 114 feet long and five were 146 feet long. Five existing stalls were extended from 96 feet to 114 feet in length. The H.W. Baum Company of Los Angeles, California, received the contract for the roundhouse and the depot improvement with a bid of \$300,000 (figures of \$240,000 and \$250,000 were also quoted in the local newspapers). Work began in August, and the contractor used a fifty-man work force partially made up of local laborers. Material for the work was shipped from California, and the project was completed by early 1930. This addition allowed locomotives to run straight through the roundhouse to the backshop or machine shop.

Further improvements were made to the roundhouse in 1931. The twenty stalls on the north side of the turntable that had been constructed in 1890 and 1901 were torn down and replaced with a new twenty-stall brick roundhouse for passenger engines. The current seven-stall roundhouse wedge is the last remnant of this 1931 building project. The plans for the new roundhouse were prepared by the Chief Engineer's Office of the Union Pacific Railroad. The new stalls were to be 120 feet in length in order to accommodate the newer, larger engines used on the line. The cost of the new roundhouse addition was placed at \$350,000. Work began in May 1931 when crews tore down the existing roundhouse on the north side of the turntable. The foundation was poured in June, and brickwork began in August. The

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Statement of Significance (continued)

construction crew generally consisted of yard employees previously laid off due to the lack of business. Fifty bricklayers were hired from the local bricklayers' union, and more than 400 men were employed in the overall yard improvement program. It does not appear that the Union Pacific hired any major outside contractors to complete the roundhouse project. Therefore, most of the work was conducted within the Union Pacific organization. Work on the roundhouse addition was completed by the end of 1931.

When the new roundhouse addition was completed, the Cheyenne roundhouse had a total of forty-eight stalls. The twenty stalls north of the turntable were used for passenger locomotives, and the twenty-eight remaining stalls on the south and east side of the turntable were used for freight locomotives.

The first "Big Boy" locomotive was produced in 1941. Cheyenne had been established as the main shop for Challengers, and therefore in 1941 received a slightly shorter new turntable (126' as opposed to 135') than Laramie, Green River, and Ogden. The existing turntable was replaced with a larger 126-foot diameter continuous span-type turntable which is still in use. However, during World War II, Cheyenne also became the main shop for Big Boys, which overhung the new turntable by about three feet on each end. Eventually, all remaining classes of steam power came to Cheyenne. Challengers were the largest engines that could fit whole into the machine shop bays. Big Boys had to have 30 inches cut off of the rear cab roofs and also had to be partially dismantled. By 1944, the Big Boys and late Challenger-type engines were routinely dismantled to fit in the bays. The front engine unit was separated from the locomotive and lifted into the bay, then the rear engine was removed.

The late 1950s witnessed the end of the steam era on the Union Pacific line. Diesel powered locomotives began to dominate the line, and roundhouses, water tanks and coaling facilities quickly became obsolete. Cheyenne became the only engine terminal in the division capable of handling steam locomotives. A three-phase program was begun in the 1960s to gradually tear down the 48-stall roundhouse and the north portion of the machine shop. Freight engine stalls 1-18 on the south side of the turntable were razed in 1966. Passenger stalls 36-48 on the north side of the turntable were removed in 1979. The demolition of the machine shop

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Laramie County, Wyoming

Statement of Significance (continued)

began in the fall of 1978 and was completed in the spring of 1979. However, the southern portion of the building was retained for a diesel servicing facility. The remainder of the freight roundhouse (stalls 19-28) on the east side of the turntable was razed in 1982-83. Only stalls 29-35 of the passenger roundhouse on the northeast side of the turntable were retained for the use of the Union Pacific's collection of steam locomotives and early diesel locomotives. The 1941 turntable was also retained.

The Cheyenne roundhouse, turntable, and machine shop have operated continuously as engine maintenance facilities for the Union Pacific Railroad from as early as 1919 (machine shop) to the present time. They are fully functional and are being restored to near original condition by the Union Pacific Railroad Company in association with the National Park Service and The Wyoming State Historic Preservation Office. The facilities retain a high degree of integrity of setting and location in the Cheyenne rail yard; they also retain integrity of design, workmanship, materials, and feeling and association, therefore meeting the requirements for listing on the National Register of Historic Places.

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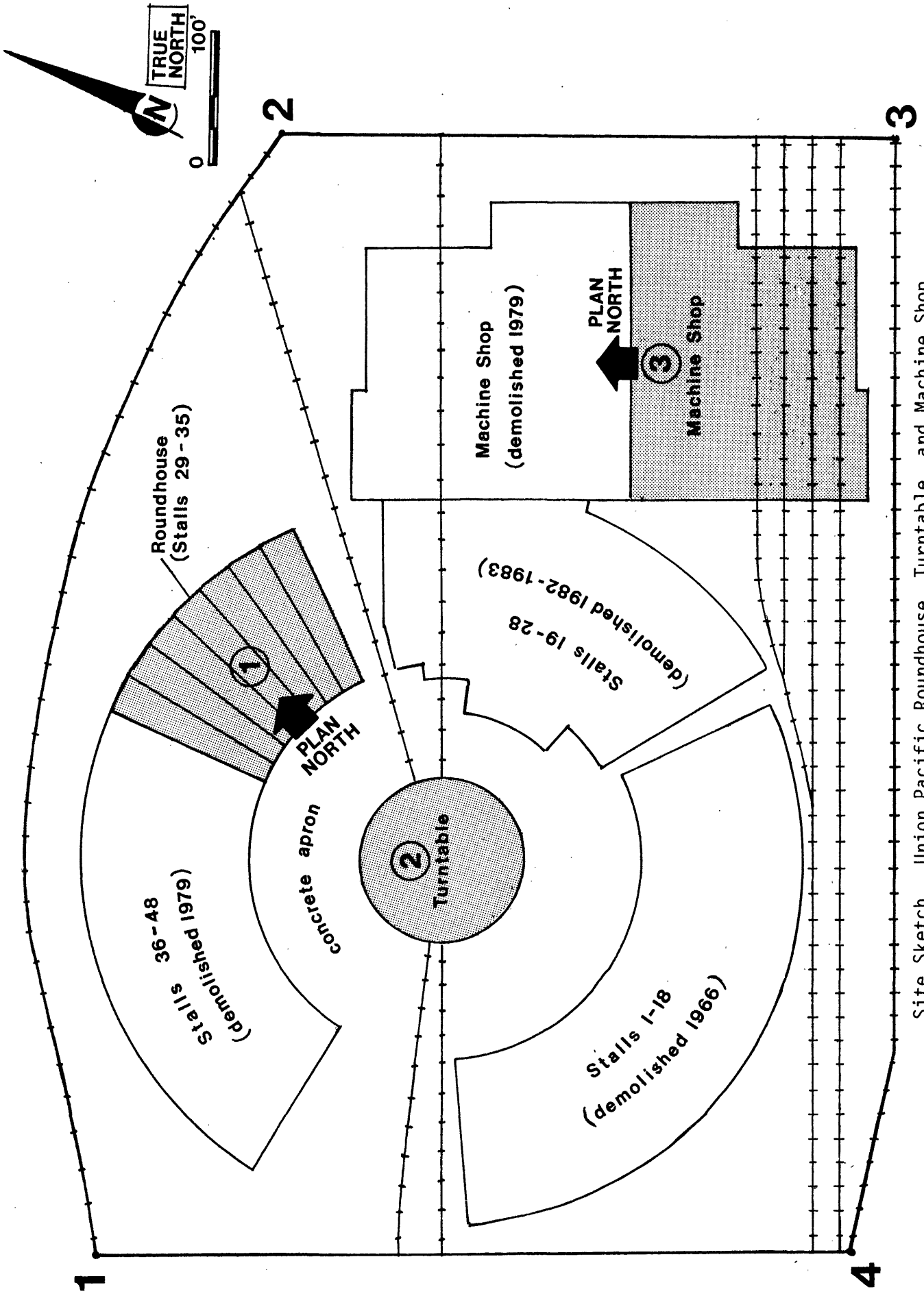
Union Pacific Roundhouse, Turntable, and Machine Shop
Laramie County, Wyoming

Verbal Boundary Description

Beginning at Point 1 (see accompanying map), an arbitrary point located on a bearing of 285 degrees and 400 feet from the center of the turntable and on the south side of the nearest rail spur north of the roundhouse, proceed in a northeasterly then easterly direction along said spur approximately 910 feet to Point 2. Point 2 is an arbitrary point located on a bearing of 52 degrees and 560 feet from the center of the turntable. From Point 2, proceed south-southeast at a bearing of 154 degrees for approximately 460 feet to Point 3, located on the north side of the first rail spur south of the machine shop. Point 3 is an arbitrary point located on a bearing of 96 degrees and approximately 645 feet from the center of the turntable. From Point 3, proceed in a southwesterly direction along the rail spur approximately 845 feet to Point 4. Point 4D is an arbitrary point located on a bearing of 198 degrees and approximately 430 feet from the center of the turntable. From Point 4, proceed on a bearing of 334 degrees and approximately 570 feet back to Point 1.

Verbal Boundary Justification

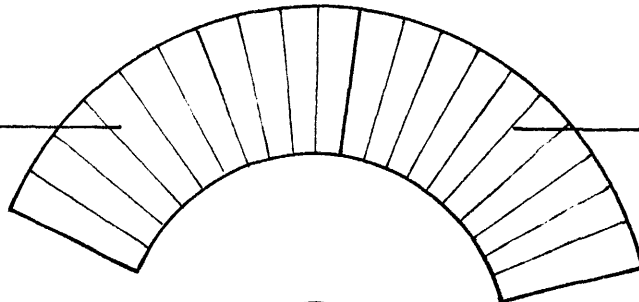
This boundary encompasses all of the contributing elements in the district including the roundhouse, turntable, and machine shop. The northwest and southeast boundaries are formed by existing railroad spurs. The northeast and southwest boundaries are parallel to the existing street and block grid for this portion of the City of Cheyenne and also encompass the remaining concrete foundations of the complete roundhouse that are still visible on the ground and in aerial photographs. All points can be accurately plotted on the ground by means of standard survey procedures using bearings and distances from the center of the turntable.



Site Sketch. Union Pacific Roundhouse, Turntable, and Machine Shop, Laramie County, Wyoming

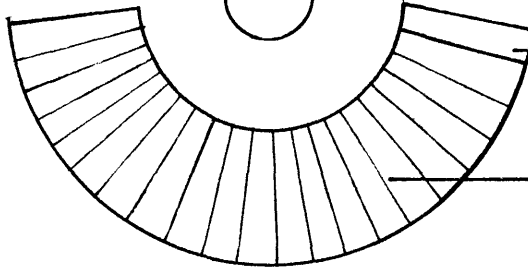
1890 - 10 stalls, brick

1901 - 10 stalls, brick



60' turntable

office space



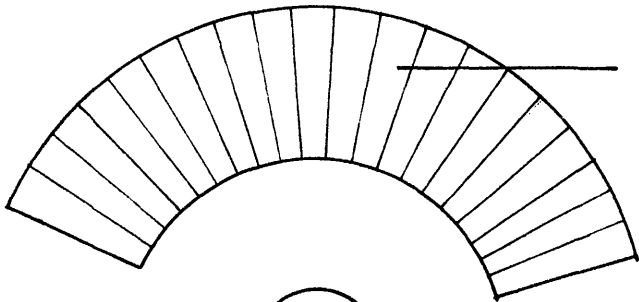
1869 - 20 stalls, stone

1904 - walls rebuilt

1910 - demolished

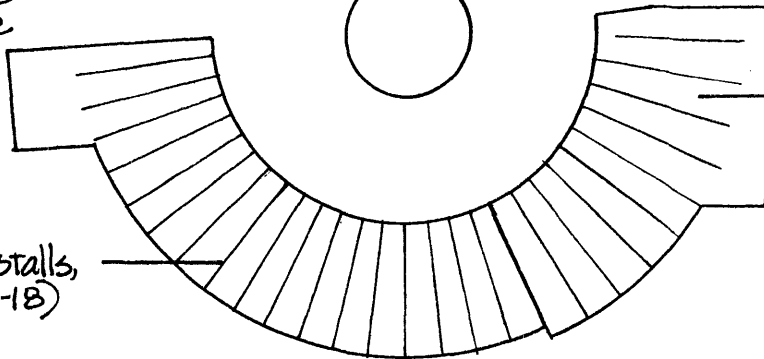
1869 - 1910

1931 - 20 passenger stalls, brick (#29-48)



1911 - 100' turntable
1941 - 126' turntable

1929-1930 - 10 freight stalls, brick (#19-28)



1911 - 18 freight stalls, brick (#1-18)

1911 - 1941

CONSTRUCTION PHASES, UNION PACIFIC ROUNDHOUSE
Union Pacific Roundhouse, Turntable, and Machine Shop
Laramie County, Wyoming.

UP
not to scale