Hydroelectric Dam Historic District Item #1-12

1. Name: Thompson Falls Hydroelectric Dam Historic District
Thompson Falls, MT

2. Location: Part of the Clark Fork River adjacent to, and within, the northwestern part of Thompson Falls, Montana.

3. Classification: District
Public and Private Ownership
Occupied
Accessible: Restricted and Unrestricted
Present Use: Industrial
Private Residence
Transportation

4. Owner of Property: Multiple Ownership

5. Location of Legal Description: Sanders County Courthouse
Thompson Falls, MT 59873

6. Representation in Existing Surveys: Thompson Falls Historic and Architectural Survey, 1984
Historic American Engineering Record Bridge Survey, 1979-1980.
Determined Eligible? yes and no

7. DESCRIPTION: Condition: excellent and good; altered and unaltered; original site

The Thompson Falls Hydroelectric Dam Historic District is located in the town of Thompson Falls, Montana (1980 population: 1,478) within and adjacent to the northwestern part of the Clark Fork River, which paralleling the community to the west, and the Bitterroot Mountains to the east. The district is spread over a wide geographic area and consists of five buildings and six structures: St. Luke's Hospital, Dr. Everett Peek's House, Chief Operator's Houses, Superintendent's House, Superintendent's Office, Dry Channel Bridge, Main Channel Bridge, Dry Channel Dam, Main Channel Dam, Power House, and the Transformer House.

1) ST. LUKE'S HOSPITAL, 1910 (#028) Primary Significance

This two story wood frame building was used as the first community hospital in Thompson Falls. Built originally to serve as a house and hospital, the building had a two story gable roofed rear "el" which functioned as the hospital,

and a balustraded second story balcony atop the present porch. The rear wing and balcony were removed in 1927. The front (south) side of the house features a second story projecting gable with returned eaves, two 1/1 double hung windows with wooden sills and lintels, and a diamond-patterned fixed window in the peak. The first floor has an off-center entrance flanked by two single pane fixed windows with leaded glass transoms. A single pane fixed window with diamond-patterned glass is located in the southeast corner. The southwest corner has a 1/1 double hung window set in a clipped corner at a 45 degree angle with decorative scrollwork above. A hip roofed porch supported by round Tuscan columns and a balustraded porch railing with turned wooden posts extends across two-thirds of the main facade and all of the east side of the house. Lattice work located below the porch covers the cement foundation. The west side of the building has a small, one story hip roofed porch that was added at an undetermined date. A 1/1 double hung window pierces the second story in the gable end. Two double hung windows are located on the first floor of the north elevation, with another on the second story. The east facade features a large single pane fixed window with stained glass transom, and two 1/1 double hung windows on the second story. The gable roof has two brick chimneys. The interior of the house retains most of the original woodwork, lighting and plumbing fixtures.

2) DR. EVERETT PEEK HOUSE, 1912 (#111) Primary Significance

This small, one story building was built as the family residence for Dr. Everett Peek adjacent to St. Luke's Hospital which Peek opened in 1910. The wood frame, four square, hip roofed dwelling resembles the modest workers' cottages which were commonly built for laborers in small communities. Constructed on a concrete foundation, it features a full width enclosed porch, and a central east-facing entrance flanked by two large fixed windows with leaded glass upper panes. The asphalt-shingled hip roof has one dormer with two fixed windows. A sidewalk which is now covered with vegetation leads from the rear of the house west to the location of the old hospital. A small, wood frame shed, and a large rectangular-shaped carriage house are located to the northwest of the house.

3) CHIEF OPERATORS' HOUSES, 1913 (#112) Primary Significance

Each of these two, small wood frame cottages are built in the same design and have similar fenestration. Both are covered with clapboard siding, have asphalt-shingled hip roofs and are built on concrete foundations. The front (east) facades have half-width enclosed porches, one with multi-paned glass and the other of screen. The north and south sides of each house have three double hung windows, while the west facades have a rear enclosed entrance and two 6/6 double hung windows. Each house has two small wood frame utility sheds located directly to the west.

4) SUPERINTENDENT'S HOUSE, 1915 (#114) Primary Significance

The square-shaped, Bungalow style Superintendent's House is located on a man-made island in the Clark Fork River adjacent to the Power House, and is accessible

only by a narrow foot bridge. The island was created during construction of the dam by cutting a channel through the bedrock. The bridge consists of 2" x 4" boards supported by two steel I-beam frame systems at each end. Steel support cables at the top of the bridge are attached to cement abutments and stone outcroppings at each end. The building is constructed on a stone and mortar foundation and has a hip roof that spreads out to form a wide porch which extends around all of the house except part of the northeast side. The porch is supported by stone piers with battered wooden columns and square balustrades, and has steps leading to the entrance facing a northwesterly direction. Gable roofed dormers with 6/1 double hung windows are located on each side of the roof, and a stone chimney pierces the center. A variety of double hung windows with six, seven, ten and twelve pane upper sashes are located along each facade of the house. A small, glass-enclosed porch is located on the northeast side of the building. The interior of the building retains much of its original woodwork and fixtures, and features wooden columns in the living and dining rooms with leaded glass built-in cabinets. Two small wood frame sheds located south of the house are sheathed in clapboard and have rolled asphalt gable roofs.

5) SUPERINTENDENT'S OFFICE, 1913 (#113) Contributing

Originally a much larger building, the Superintendent's Office is a two story wood frame, gambrel roofed house built on a concrete foundation and sheathed with clapboard. It originally had two one story "els" attached to the east and west elevations and an enclosed porch on the south which were likely removed between 1918-1926. The front (east) side of the dwelling has two entrances, one recessed, one fixed and seven double hung windows on the first floor, and a large shed dormer with three 6/1 double hung windows. The west facade has an exterior staircase, a centrally located entrance, a bay window with three double sashes, and a group of other windows on the first and second stories. The south gable end has an enclosed porch, while the north gable exhibits two sets of paired double hung windows on each floor. A brick chimney is placed near the center of the roof. The interior of the house retains its original wood floors, fireplace with cherry wood mantle and most of the light fixtures. A wood frame garage built in 1925 is located northwest of the house.

DRY CHANNEL AND MAIN CHANNEL BRIDGES

There are two bridges associated with the development of Thompson Falls, both built in 1911 by O.E. Peppard of Missoula from designs by William Cowles of Minneapolis. The superstructures were fabricated by Illinois Steel. Both were built by Sanders County in anticipation of the construction of the nearby hydrolectric facilities.

6) DRY CHANNEL BRIDGE, 1911 (#116) Primary Significance

The Dry Channel Bridge, located about one hundred yards upstream of the dry channel dam between the north bank of the Clark Fork River and the east island, is 377 feet long. The top chords, inclined end posts, and vertical compression

members of each 90-foot, pin-connected pratt through truss three-panel spans are built up from pairs of laced channels. Diagonal tension members, hip verticals, and lower chords are rectilinear eyebars. I-beam floor beams are hung from U-bolts, and wooden stringers support a plank deck covered with rotted asphalt.

7) MAIN CHANNEL BRIDGE, 1911 (#118) Primary Significance

The Main Channel Bridge is an eight span bridge located a couple hundred yards below the main channel dam, south of the town of Thompson Falls. The spans include a 55-foot, three-panel Parker deck truss with inclined end-posts only at the north end; a 160-foot, nine-panel Pratt deck truss, two 127-foot, seven-panel Pratt deck trusses; a 65-foot, four-panel Pratt deck truss which appears to be a standard Pratt pony modified for use as a deck truss; and three 18-foot wood stringer spans supported by wood pile bents. All of the Pratt deck spans are of steel, are pin-connected, and are supported by concrete piers.

MAIN CHANNEL AND DRY CHANNEL DAM

The hydroelectric project includes a Main Channel Dam, at the falls proper, which diverts water into a side channel and forebay canal to the powerhouse approximately 600 yards downriver. The main channel flows between the south bank of the Clark Fork River and an irregularly-shaped island. A second "island" to the west was formed when the forebay canal was excavated through a small promontory. The Dry Channel Dam spans the distance between the two islands.

8) MAIN CHANNEL DAM, 1915 (#120) Primary Significance

The Main Dam is a 913-foot long, 18-foot high arched concrete gravity structure. It is surmounted by a system of stationary wooden flashboards held on steel stanchions and by a wood plank bridge with rails for a small electric crane. Access to the west end of the dam is via a short path lined with low walls of rubble slate. Towards the lower end of the path is a small, square "warming" shed of coursed rubble ashlar slate construction, with concrete sills and lintels and a corrugated metal hipped roof. The shed is used for storage and as a shelter for plant personnel in cold weather, and is a contributing structure of the district.

9) DRY CHANNEL DAM, 1915 (#121) Primary Significance

The Dry Channel Dam is located west of the Main Dam. It consists of a 289-foot overflow wall and a 122-foot no-overflow wall. The dry channel dam is also of the arched concrete gravity type, with a sluiceway at the west end. Like the Main Dam, the Dry Channel Dam is surmounted by steel stanchions, a wooden flashboard system, and a plank bridge with rails for an electric crane.

10) POWER HOUSE, 1914 (#115) Primary Significance

The Power House is a masonry structure built with coursed granite ashlar and

finely-tooled mortar joints. It is set upon a substructure that forms both foundation and hydraulic structure, with intake, spiral turbine casings, and draft tubes molded directly into the concrete. The building is fifteen bays long, with tall windows surmounted by concrete segmental arches and divided by broad concrete spandrel panels. Windows are of the multi-light steel industrial type, with sections hinged to pivot in a horizontal plane for ventilation. The front or main bay is covered with a broad shed roof, while the roof of the rear bay is a very shallow gable. Both roofs are covered with sheet metal and are supported on the interior by large steel trusses.

The main bay contains the generating room. In this large space, arranged longitudinally, are the six main generating units, set in two groups of three with a pair of exciters located between them. The main units consist of 5000 kw single-runner vertical Francis turbines, each with a 5000 kw, 6600V AC generator, oil tank, and oil-pressure governor, all manufacture by Allis-Chalmers. The continuous current generators of the exciters are also Allis-Chalmers. Behind the generating area, on the same level, is a row of General Electric water-cooled step-up transformers, each in its own brick-walled compartment.

The rear bay is divided into three levels, supported on shallow concrete vaults, with step-up transformers and low-tension equipment on the first floor. A control room with vertical panel switchboards and office areas is centrally located between rows of busses and other switching apparatus on the second story, and additional high-tension equipment on the third level. A number of Westinghouse single-phase self-cooled transformers (radiator type) remain in these areas.

11) TRANSFORMER HOUSE, 1913 (#119) Primary Significance

The Transformer House is located on a rock outcrop almost directly south of the south of the south end of the Dry Channel Bridge. It is a small, one story square structure of rock-faced random ashlar slate construction with a concrete floor. The hip roof, with projecting rafter ends, is covered with corrugated sheet metal. Window and door casings are wood, with concrete sills and lintels. The west-facing entrance is surmounted by a triangular concreted pediment. Into each wall is set a recessed concrete panel, from which protrude porcelain and clay insulators. Built into the west and south interior walls are insulated conduits for high-voltage transmission lines. The building is no longer used by the Montana Power Co.

8. SIGNIFICANCE

Areas of significance: architecture, commerce, and engineering
Specific Dates: 1910-1916
Builder/Architect: Multiple

The Thompson Falls Hydroelectric Dam Historic District is significant under Criterion A for its substantial contribution to the historical development of

Thompson Falls because it served as a major catalyst in providing for the growth and stability of the community. The District is also eligible under Criterion B for its association with Senator Edward Donlan and Dr. Everett Peek, two of the most influential people in the community's history who were responsible for, and directly involved in, the construction of the dam. Finally, the District is significant under Criterion C because it represents a very well-preserved example of early 20th century hydroelectric power generation technology with related company-built houses and work facilities. Its power house, bridges, dams, attendant structures and buildings are largely intact and operational.

As early as 1905, the Thompson Falls Ledger reported of local interest in taking advantage of the Clark Fork River to provide electrical power to the community. In 1910, several leading citizens in Thompson Falls, including Senator Edward Donlan, Dr. Everett Peek, and Arthur Preston, formed the Thompson Falls Light and Power Company to provide and regulate electricity for the community, and to promote the concept of a hydroelectric power station. Donlan, who was president of the Northwestern Development Company, owned the land and water rights west of Thompson Falls along the Clark Fork River near the waterfalls. In an agreement with Northwestern, he relinquished those rights in exchange for 12,000 shares of stock in the company. Donlan sold half of this to John D. Ryan, a board member of the Milwaukee Land Company, who then turned over his interests to the Milwaukee Road railroad in 1912. The railroad hoped to electrify part of its line from Deer Lodge, Montana to Avery, Idaho, but eventually bought their power rather than building a plant to generate electricity. Ryan then bought back the shares in Northwestern and converted them into stock to form the Thompson Falls Power Company. The company built a small power plant and dam in 1912-13 on Prospect Creek (west of town), to provide electrical power for the communities of Paradise, Plains and Thompson Falls. In effect, this power plant provided the power for the major hydroelectric project which was started in 1912. Thompson Falls thus became the first major hydroelectric project developed by Montana Power following its organization towards the end of 1912. The location of the plant near Idaho also permitted Montana Power to expand beyond the state border, as it supplied power for a time to the mines and smelters at Coeur d'Alene.

Prior to any construction, Dr. Peek relocated his drugstore and office from Main Street to a new combined residence and hospital at 1014 Maiden Lane (1910). As one of the initial investors in the Thompson Falls Light and Power Company, Peek, who was also County Commissioner in 1908, undoubtedly realized the potential of a hydroelectric project and chose to build St. Luke's Hospital near the eventual power plant site. The hospital was officially organized in 1912, with Peek holding 79 shares, Edward Donlan with 20 shares and A.S. Ainsworth, a local attorney who lived near the hospital, with one share. By 1914 Peek had sold a one-third interest in the hospital to Dr. I.A. Gates of Bridger, Montana. Five years later, well after the hydroelectric project had been finished, he had sold his practice and moved to Missoula. In 1920 the hospital and private residence were sold to the Thompson Falls Light and Power Company, and by 1929 the Montana Power Company had assumed ownership of the buildings.

By 1916 the Main and Dry Channel Dam, and the Power House with six generating units were completed, and its impact in the community was widespread. During the construction, 400 men were employed to build just the power house. A number of structures related to the project, which have since been demolished, were constructed in the area from the waterfalls along Maiden Lane to the edge of Thompson Falls. Among these buildings were ten bunk houses, a large mess hall, and numerous sheds, workshops and other outbuildings. The office building at 915 Maiden Lane (1913), the two Chief Operator's Houses at 106 and 116 Pond Street (1913) and the Superintendent's House on the island (1915) all provided office space and employee housing, and remain in use today by the Montana Power Company.

Both the eight-span Main Channel Bridge and the 377-foot Dry Channel Bridge have been officially determined eligible for inclusion in the National Register, and have been recorded by the Historic American Engineering Record (HAER). The HAER survey noted a number of unusual features in the design and construction of the Main Channel Bridge and also determined it to be the longest of O.E. Peppard's remaining spans in Montana. Prior to construction of either bridge, access to Thompson Falls from the west bank of the Clark Fork River was via a small, cable-drawn ferry. After 1911 pedestrian and vehicular traffic was greatly aided with the addition of these bridges, which provided a more convenient and direct route to Thompson Falls for area residents. With the deterioration of both bridges, however, traffic must take a more time-consuming route to town through Prospect Creek.

The Power Plant, which had two turbine generators on line by 1915, originally called for providing 10,000 kilowatts of power to the community. The Coeur d'Alene mining and smelting area, however, required additional power so that by 1917 two more generating units were installed, resulting in 30,000 kw of electricity for the region.

The impact of the Thompson Falls Light and Power Company and its hydroelectric dam project are evident in the structures that remain today as physical reminders from the boom period of construction beginning in 1911. The bridges, powerhouse and related buildings are the tangible evidence of a significant era in the development of Thompson Falls. The office building and houses are the only remaining buildings of approximately 30 original structures which the power company constructed for use during the hydroelectric project. Other indirect impacts in the community, such as the temporary population increase, which contributed to more residential and commercial construction and an improved economy, are not as easily discernable, but did nevertheless result from the work of the power company.

9. Major Bibliographical References

See Section 9 in cover form

10. Geographical Data

Acreage of nominated property: approximately 80
Quadrangle name: Thompson Falls
Quadrangle scale: 1:62,500
UTM References: All zone 11
A Easting 623500 Northing 5272700
B Easting 623050 Northing 5272250
C Easting 623800 Northing 5271800
D Easting 623850 Northing 5272300

VERBAL BOUNDARY

The boundaries for the historic district are as follows: beginning at a point on the west bank of the Clark Fork River southeast of the Main Channel Dam, the eastern boundary spans the river in a northwestern direction to the point where Gallatin Street begins in Thompson Falls. Turning northwest, the boundary follows the east bank of the river until reaching Pond Street at which point it turns northeast. Following Pond Street, the boundary extends to a point approximately 50 feet northeast of the northernmost Chief Operator's house (#112), at which point it turns west for a distance of about 400 feet. This northern boundary then turns south and joins with the Montana Power Company road to form part of the western boundary. Following the road, the boundary then jogs west again bordering the Power Plant on its north and west sides, extending south to the opposite side of the Clark Fork River. The southern boundary then follows the west bank of the river until adjoining the east boundary.

Properties do not overlap into other counties or states

Form Prepared By: Michael Koop, Survey Coordinator/NR Assistant
Montana SHPO
225 N. Roberts 406-444-7715
Helena, MT 59620

The evaluated significance of this property within the state is: local

PROPERTY OWNER LIST FOR HYDROELECTRIC DAM HISTORIC DISTRICT

#028 St. Luke's Hospital
Charles Phillips c/o Craig Phillips
P.O. Box 1272
Thompson Falls, MT 59873

#111 Dr. Everett Peek House
Montana Power Company
40 E. Broadway
Butte, MT 59701

#112 Chief Operator's Houses
Montana Power Company
40 E. Broadway
Butte, MT 59701

#113 Superintendent's Office
Montana Power Company
40 E. Broadway
Butte, MT 59701

#114 Superintendent's House
Montana Power Company
40 E. Broadway
Butte, MT 59701

#115 Powerhouse
Montana Power Company
40 E. Broadway
Butte, MT 59701

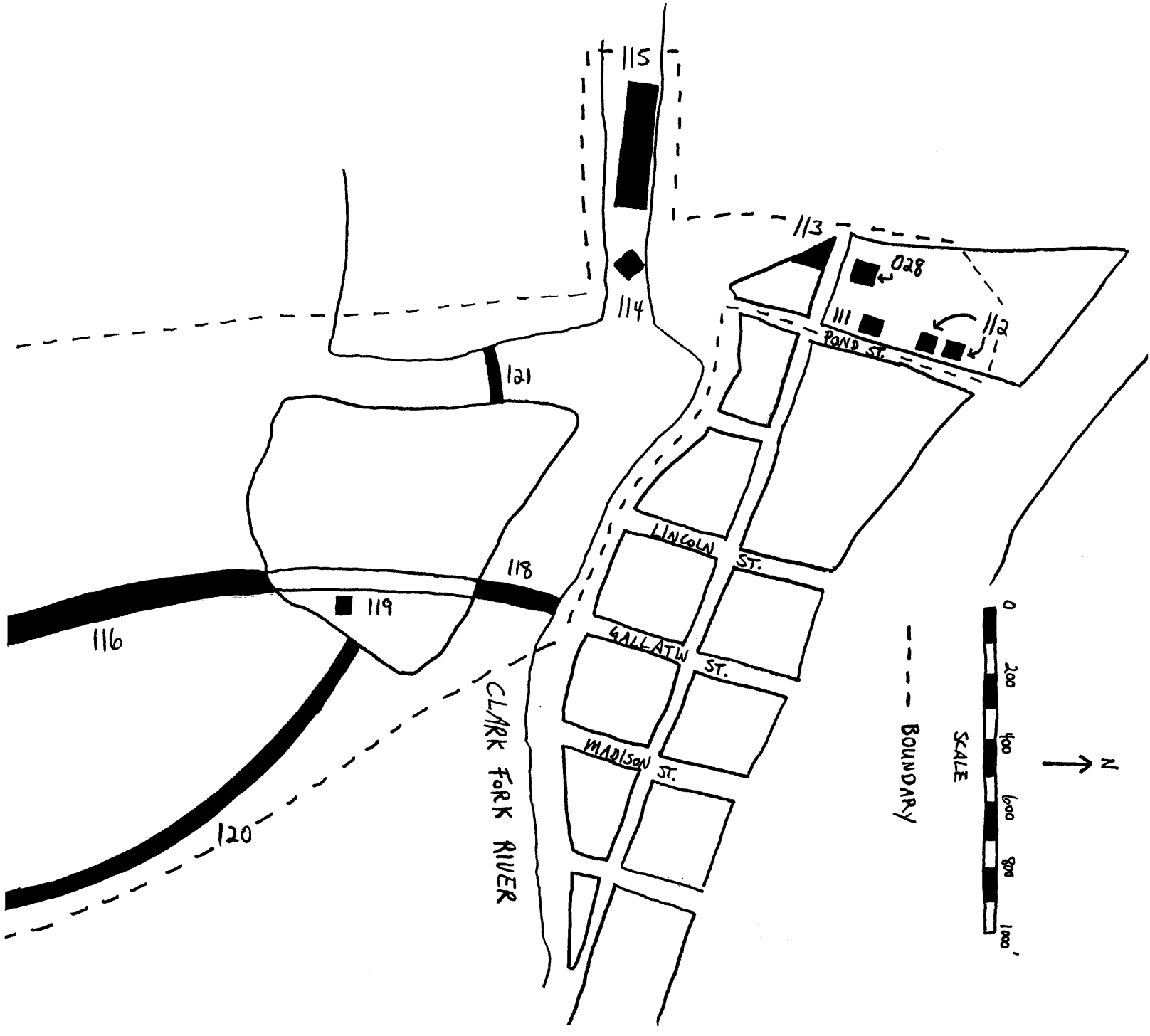
#116 Dry Channel Bridge
Sanders County
Sanders County Courthouse
Thompson Falls, MT 59873

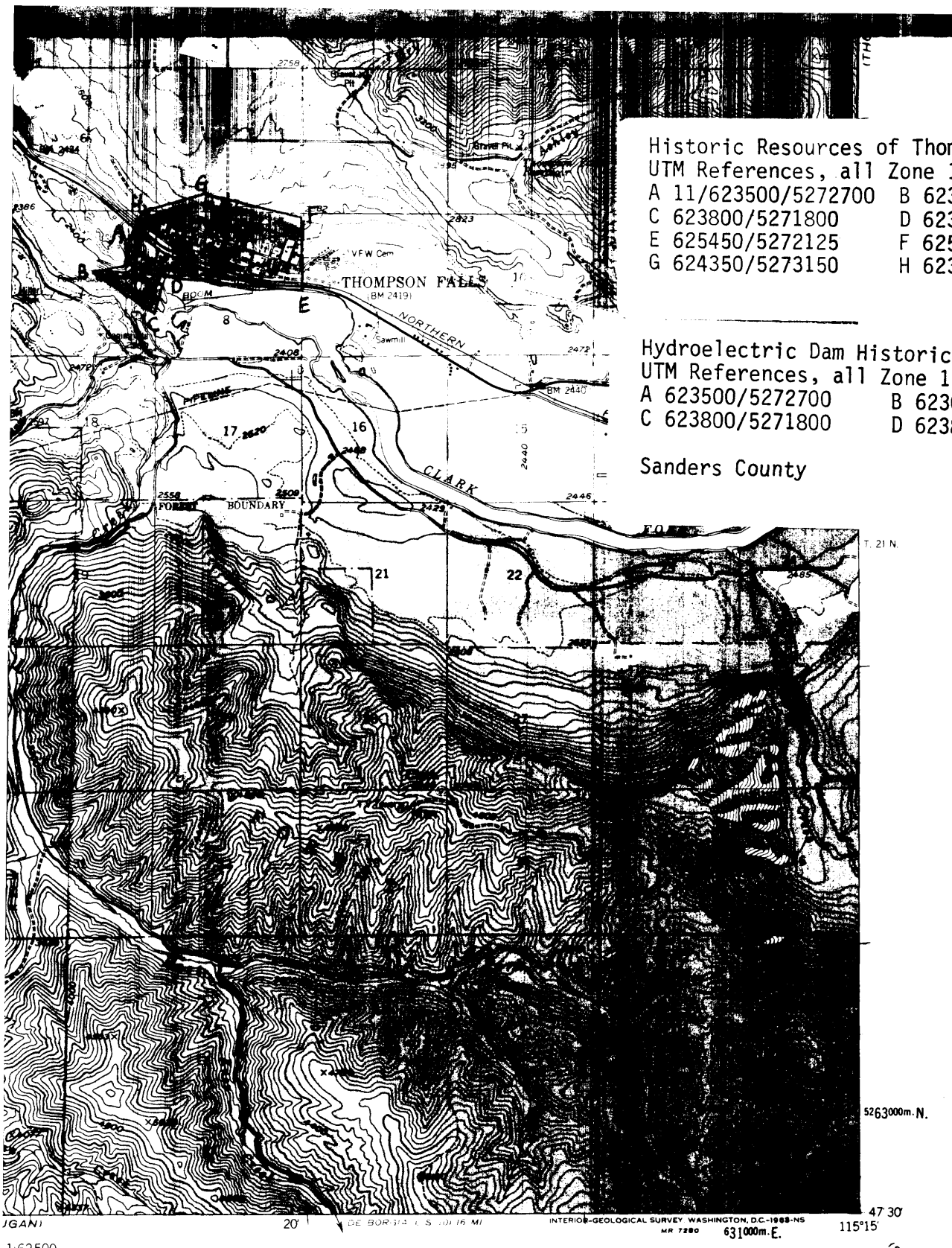
#118 Main Channel Bridge
Sanders County
Sanders County Courthouse
Thompson Falls, MT 59873

#119 Transformer House
Montana Power Company
40 E. Broadway
Butte, MT 59701

#120 Main Channel Dam
Montana Power Company
40 E. Broadway
Butte, MT 59701

#121 Dry Channel Dam
Montana Power Company
40 E. Broadway
Butte, MT 59701


115
113
114
028
111
112
POND ST.
121
118
119
116
120
LINCOLN ST.
GALLATIN ST.
MADISON ST.
CLARK FORK RIVER
BOUNDARY
SCALE
0
200
400
600
800
1000'
N



Historic Resources of Thompson Falls, MT
UTM References, all Zone 11:
A 11/623500/5272700 B 623050/5272250
C 623800/5271800 D 623850/5272300
E 625450/5272125 F 625450/5272900
G 624350/5273150 H 623650/5272950

Hydroelectric Dam Historic District
UTM References, all Zone 11:
A 623500/5272700 B 623050/5272250
C 623800/5271800 D 623850/5272300

Sanders County

INTERIOR—GEOLOGICAL SURVEY WASHINGTON, D.C.—1962—NS
MR 7280

1:62500

2 3 4 MILES
000 12000 15000 18000 21000 FEET
2 3 4 5 KILOMETERS

'ERVAL 80 FEET
;ENT 40 FOOT CONTOURS
EAN SEA LEVEL

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

MONTANA
QUADRANGLE LOCATION

IONAL MAP ACCURACY STANDARDS
NVER 25, COLORADO OR WASHINGTON 25, D.C.
PS AND SYMBOLS IS AVAILABLE ON REQUEST

THOMPSON FALLS, MONT.
N4730—W11515/15
1957