WILLAMETTE FALLS INDUSTRIAL AREA

REQUEST FOR DETERMINATION OF ELIGIBILITY

"Glimpse of Manufacturing Center of Oregon City, Oregon"
c1907

for Portland General Electric & the Blue Heron Paper Company
in cooperation with the West Linn Paper Company

May 2002

Prepared by George Kramer, M.S., HP
Sr. Preservation Specialist
Heritage Research Associates, Inc.
Eugene, OR

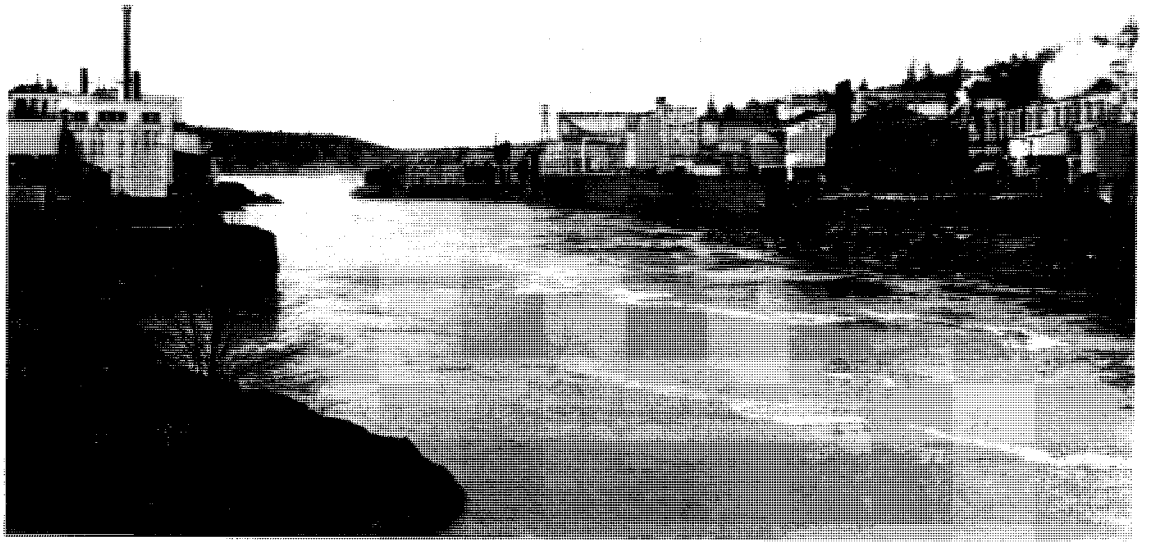
DETERMINATION OF ELIGIBILITY FOR THE NATIONAL REGISTER

Property Name: **WILLAMETTE FALLS INDUSTRIAL AREA**
Address: **Oregon City, Oregon**
West Linn, Oregon
Original Use: **Hydro/Pulp Mill** Current Use: **Hydro/Paper Mill**

Date of Construction: **1865-1951**
County: **CLACKAMAS**

Style: **Utilitarian/Industrial**
Theme: **Commerce/Industrial**

PRIMARY SIGNIFICANCE: The Willamette Falls Industrial Area consists of a densely developed complex of utilitarian buildings and related structures lining both sides of the Willamette River channel between Oregon City and West Linn in Clackamas County, Oregon. The area demonstrates significant association with the development of hydroelectricity and establishment of the papermaking industry in the State of Oregon.
[***Continued on Page 17***]



Willamette Falls Industrial Area, *Looking S, toward the Falls, from McLaughlin Blvd, Oregon City*

PHYSICAL DESCRIPTION: The Willamette Falls Industrial Area is a dense complex of utilitarian and industrial structures located along the channel of the Willamette River. Although composed of multiple individual built resources as detailed below, the visual character of the district is largely one of contiguous development, flanking the channel, with little apparent differentiation or obvious separation between most of the buildings. The area is defined by the Willamette Falls Dam on the south and extends visually to a line spanning the river at the entry point of the Willamette Locks. First developed for industrial purposes in the mid-19th century, today the historically significant resources of the Willamette Falls Industrial Area date from the late-19th century through the period of post-WWII expansion. Continuing the traditional uses of hydroelectric generation and the manufacture of paper products, the Willamette Falls Industrial Area retains significant association with the industrial movement in the Pacific Northwest and demonstrates sufficient integrity to relate its original development period. [***Continued on Page 2***]

In my opinion, the property ___ meets ___ does not meet the criteria for listing in the National Register of Historic Places.

Signature of Certifying SHPO Official/Title Date

Comments/Request for Additional Information:

LOCATION:

The Willamette Falls Industrial Area is located in Clackamas County, Oregon, at River Mile (RM) 26.5 of the Willamette River. The area is in an urban/industrial setting between the incorporated cities of West Linn and Oregon City. Within the channel of the Willamette River, the study area begins at Willamette Falls and the horseshoe shaped dam on the south and continues north to the entry point to the Willamette Locks. In general, the steep river bank forms the western boundary (in the city of West Linn, Oregon) except for two project-related resources accessed from Willamette Falls Drive. The right-of-way of the Southern Pacific Railroad forms the boundary on the east. The entire area is located within Township 2 South, Range 2 East, Section 31 and is documented on Clackamas County Assessor plats 2-2E-31, 2-2E-31BA and 2-2E-31BD.[1]

Other than the Willamette Falls Dam itself, the project area is comprised of two generally flat shelves that flank the channel of the Willamette River, with the buildings on either natural bedrock or supported by tall stone, concrete, or other pilings that have encroached upon and narrowed the original river channel during more than a century of industrial development of the site.

Resources immediately adjacent to the Industrial Area include downtown Oregon City and the former West Linn City Hall. Highway 99 (the Pacific Highway) lines the Oregon City side of the river and connects West Linn and Oregon City via the Willamette River (Oregon City) Bridge, a 745 foot concrete arch structure built in 1922. The city of West Linn, successor to Linn City which originally stood within the project area on the river bank proper, traces its history to the 1840s and was renamed West Linn in 1854. Oregon City, on the east of the project, was laid out by John McLoughlin in 1842 and was first settled in 1829. The Willamette Falls, the focal point that resulted in settlement on both sides of the channel, is generally reckoned as one of the earliest and longest inhabited areas of Euro-American settlement in the Pacific Northwest

PHYSICAL DESCRIPTION [CONTINUED FROM PAGE 1]

The following itemized catalog of the primary built resources within the Willamette Falls Industrial Area is intended to briefly document its major built elements and their development history. All "buildings" as defined by the National Park Service for the evaluation of historic resources are included, as are major or clearly identifiable "structures." The nature of the site, where each inter-connected portion of the system plays an intrinsic role in the generation of electricity and the manufacture of paper products, exhibits associations between individual elements that are 1) hard to delineate and 2) often combine both historic and non-historic resources into what now functions as a single entity. These aspects of the site significantly complicate the normal process of documenting specific individual elements, particularly within the paper mill portions of the area. With that stated, the built resources of the Willamette Falls Industrial Area are documented individually, beginning and the dam and heading in a northerly direction along the West Linn (western) side of the channel and then crossing the river to the northern entrance to the Oregon City (eastern) side of the project at Main and 5th streets, then proceeding southerly through the Blue Heron project to the powerhouse site at the southeastern corner of the dam. Resources are identified by a site number keyed to the project map (attached), name, and year of construction. Standard National Register evaluation terminology (*Historic Contributing, Historic, Non-Contributing and Non-Historic, Non-Contributing*) are included in the item header to ease review.

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[1] The project includes multiple tax lots with the entire FERC license area assessed by the State of Oregon Department of Revenue. Tax lots identification numbers within the license boundary include TL 600 (Abernethy Island continuing to the tailrace within the Blue Heron development), 702 (the West Linn log handling area), 700 (Sullivan Plant and portions of West Linn mills), 701 (extreme northern portion West Linn Mills), 800 (the Willamette Locks), and 900 (the West Linn Paper office and other portions west of the Locks). Additional properties within the Blue Heron plant north of the tailrace are documented on Assessor Plat 2E-31BD. Since most of these tax lots bear little connection to the built resources, containing portions or all of more than a single building, they have not been used as a reference in this document. Please refer to the attached project map for a graphic description of the study area.

1. **WILLAMETTE FALLS DAM**:[2] Built: **1943**
Evaluation: **Historic Contributing**

The earliest attempts to harness the power of Willamette Falls for industrial purposed reportedly occurred in the 1830s at the direction of John McLaughlin. Various small timber crib dams and structures were apparently connected to series of saw, flour, and woolen mills over the next five decades. Between 1889 and 1890, in connection with its plan to develop a pulp mill on the West Linn side, to be built upon land leased from the Willamette Transportation and Locks Company, the Willamette Pulp and Paper Company "..constructed a timber crib dam on the westerly side of the river extending some 800 feet from the wall of the canal and locks across the main channel of the river to the head of the Falls" (PGE, 1957:Q3) Two years later, in 1892, the Willamette Falls Electric Company, in preparation for the construction of what would become Station B [now the T. W. Sullivan Hydroelectric Plant], constructed a dam spanning the entire river, beginning at the bulkhead of Station A, on the east (Oregon City) side of the channel and continuing around the falls and then over the top of the earlier Willamette Pulp and Paper dam. "This latest section of timber crib dam was approximately 950 feet in length and built sufficiently far upstream from the crest of the falls to serve as a coffer dam when a concrete dam was built later" (PGE, 1957:Q4).

In 1907 the timber crib dam was replaced by a new concrete structure that spanned the entire river. "Fifty thousand dollars has been expended by the Portland Railway Light and Power Company in the construction of improvements at the falls of the Willamette that will last for all time. Work was started last May on a new concrete wall, forming the headworks for the basin, and this is now practically complete" (*Oregonian*, 26-August-1907, 8:1). The 1907 dam was itself improved and expanded several times over the next two decades.

> A flood during January 1942 washing out a 160-foot section of the Willamette Falls dam on the east side of the falls and extending northerly from the old Station A plant...the original parts of the flood-battered dam consisted of timber bents faced with heavy plank...Parts of this structure were washed out in 1923. The dam was then reinforced with rock-filled cribs on the downstream side. In 1935, the top was raised and additional cribs were added on the downstream side...For PGE, the Gilpin Construction Company built a cofferdam across the basin to dewater the construction area. In March 1943 the rock bed of the basin was exposed, revealing a millrace excavated in the 1830s for the venerable Dr. John McLaughlin to serve his waterwheel-powered flour and sawmill at the lower end of the basin area. A new dam of about 875 feet in length and 25 feet in height was constructed of concrete with flood spillway sections provided with stoplogs. The spillway piers supported a bridge connecting the various mill buildings of the Hawley Pulp and Paper Company...[*now Blue Heron*] (Griesser, 1982:181).

This 1943 concrete dam, with subsequent repairs and maintenance, remains in use today and serves as the connecting feature that supports the individual hydroelectric and paper-making operations that occupy the Willamette Falls Industrial Area detailed below.

WEST LINN [WESTERN] BANK

2. PGE Substation Built: 1930c/1990s
Evaluation: Non-Historic, Non-Contributing

An outdoor-type substation, portions of this element may date from the 1930s but were extensively rebuilt in the 1990s.

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[2] To aid use of this document individual resources determined to be of historic significance are formatted as "**RESOURCE NAME**" while non-historic and non-contributing resources are formatted as "resource name"

3. **WATER TREATMENT PLANT** Built: 1934
Evaluation: Historic Contributing

This concrete volume consists of a large multi-story lower portion with an open tower above. Built on the bluff, to the west of the main channel (along Willamette Falls Drive), the water treatment is connected to the main portion of the West Linn Paper Company plant via a suspended link that crosses the navigation channel of the locks. According to company records, the Water Treatment Plant was constructed in 1934 and while somewhat altered, retains sufficient integrity to relate its design and use during the historic period.

4. **LOG "HAUL" OR LOG BUNDLE HANDLING SYSTEM** Built: 1949, 1961
Evaluation: Historic Contributing

This steel and wood system was formerly used to bring logs into Mill A and the grinder rooms as the first step in the manufacture of pulp and paper products on the West Linn side of the channel. "Log Hauls" in this area are reported as early as 1889 and the present system apparently dates from the late 1940s, as modified. "At up river log dumps the company accumulated logs ranging from eight to fifty feet long. There logs were scales and bundled into 45,000 pound rafts for towing downstream to the log pond south of Mill A. The bundles were separated and workers used pike poles to guide logs into a conveyor serving the sawmill. After 1961, a new powerful electric hoist lifted the logs from the pond to a newly built sorting deck, where they were mechanically sorted and sent to the mill" (Stein, 1997:13). Although modified after the historic period, the log haul area represents an integral element in the significant pulp manufacture process and is considered a contributing element in the industrial character of the project.

5. **MILL A/SAWMILL** Built: 1951-52
Evaluation: Historic Contributing

The present Mill A, not to be confused with the original "Mill A," was constructed in 1952 of a steel framework with corrugated metal siding, apparently following the demolition of an earlier wood-frame sawmill that stood on this approximate site. This feature was previously determined eligible for listing as an element of the Mill A/Grinder Room Complex. (See Stein, 1997)

6. **GRINDER ROOM #2** Built: 1905
Evaluation: Historic Contributing

Built by Crown-Columbia, Grinder Room #2 is the oldest grinder room in the Willamette Falls Industrial Area. "It is an essentially one-level space extending approximately 112 feet from east to west and 192 feet from north to south...A concrete dam forms its southern and eastern walls. Its northern and western walls are timber-framed with wood siding" (Stein, 1997:11). The Oregon State Historic Preservation Office has previously determined that Grinder Room #2 is eligible for listing on the National Register of Historic Places.

i. **GRINDER ROOM #2 GENERATOR ROOM** Built: 1907, modified by 1920
Evaluation: Historic Contributing

"For the generation of electrical power Crown-Columbia in 1907 erected a separate all-concrete Generator Room northeast of Grinder Room Two. Massive walls protected the generators from high water during the annual river rises....Two adjoining and slightly offset sections make up the Generator Room as it is today. Sometime between 1909 and 1920 the company built a Generator Room annex directly west of the original one...and duplicated its massive concrete wall construction..." (Stein, 1997:11) The Grinder Room #2 Generator Room was determined eligible for listing concurrently with the Grinder Room itself.

7. **GRINDER ROOM #3** Built: 1920
Evaluation: Historic Contributing

Built on the site of the original Grinder Room 3 as erected by Crown-Columbia in 1909, this larger building stands east of the generator room. "Grinder Room #3, made of reinforced concrete, has a steel truss roof extending a few feet above the top of the dam. Along its single level, it covers an area 100 feet from east to west and 156 feet from north to south....Subsequently, Crown-Willamette constructed a Screen Room above portions of the Grinder Room Three and the penstocks leading to the Generator Room turbines...Built of reinforced concrete with a steel truss roof, it covers an area

approximately 235 feet from east to west and 82 feet from north to south" (Stein, 1997:12). The lower portions of the screen room apparently include elements of the original Mill A (not to be confused with the above) although the exact relationship between this structure was not fully determined. Grinder Room #3 was determined eligible for listing on the National Register concurrently with Grinder Room #2.

8. **STATION B** [T. W. Sullivan Hydroelectric Project] Built: 1893-1895, modified 1953
Owner: Portland General Electric Evaluation: Historic Contributing

The T. W. Sullivan Plan is a shallow u-shaped, multi-story, volume. The original 1893-1895 portion of the building is of poured in place concrete, scored to appear as coursed stone, with cast detailing and other decorative elements. "The construction of the station will be of concrete, iron, steel, brick and tile — not a particle of wood" (*Morning Oregonian*, 30-January-1893). Station B went into commercial operation in December 1895 with two generating units and third was added in January 1896. Additional units continued to expand the capacity of the plant until by 1903 Station B's output was 5,730kW, by far the largest element in the company's system, and provided the majority of power to the City of Portland until augmented by the completion of the Faraday Powerhouse, on the Clackamas, in 1907. An final addition occurred in 1924 when Unit 9 was replaced with a more modern vertical generation unit. (PGE/EDAW Team, 1998:16)

By the end of World War II Station B had been in operation for more than 50 years and, still using some of the industry's earliest equipment, was woefully out-of-date. "A comprehensive analysis indicated an installation of 12 modern propeller-type turbines...would increase peak generating capacity to 15,000 kW from the former maximum of 5,000 kW (Greisser, 1982:111). In February 1952 the plant was closed for rehabilitation and modernization. Major elements of this 1953 project included the installation of twelve new generating units, with the 1924 Unit 9 retained, and the installation of a new higher capacity gantry crane. To accommodate the crane and the larger generation units, the original gable roof of the powerhouse was removed and a new metal-framed volume added 14 feet to the building's overall height. This upper addition is clad with a gray-colored corrugated asbestos product called "Transite." It was likely during the 1953 renovation that the original arched top windows were removed and replaced with the present metal-sash industrial lights. On June 29th 1953 Portland General Electric Vice-president in charge of Operations George E. Sullivan formally re-dedicated Station B as the "T. W. Sullivan Plant" in honor of his father, its designer. In 1995 Hydro Review Magazine made the T. W. Sullivan Plant its first inductee into the *Hydro Hall of Fame*. Only one hydroelectric plant in the United States, the 1892 Vulcan Street Hydroelectric Central Station in Appleton, Wisconsin, pre-dates the construction of the Sullivan Plant and remained in operation as of 1998.

9. Fish Ladder and related facilities Built: 1966-1971
Evaluation: Non-Historic, Non-Contributing

The first fish ladder at Willamette Falls, reportedly one of the first such features in Oregon, was built in 1884-1885. The present ladder, the latest the series of fish-passage features located at the Falls, was completed in 1971 and designed by Cooper and Rose & Associates. "Planning for the current facility began in 1957 and proceeded in three phases: the first phase work began in 1966 and the final phase was completed in 1971 (PGE, 1997). The fish ladder is owned and operated by the Oregon Department of Fish and Wildlife (ODFW) and has three entrances inside the horseshoe of the falls and one inside the T. W. Sullivan tailrace. (PGE/Harza, April 2001). A fish counting station is located on the western side of the dam, near Grinder Room No. 2.

10. **STEEL BRIDGE** Built: 1913
Evaluation: Historic Contributing

This steel truss bridge connects Mill A with the portion of the plant to the north, spanning the outlet bay between Moore's Island and the expanding West Linn bank. The bridge is apparently that designed by Pacific Construction Company for the Willamette Pulp and Paper Company in 1913 and built soon thereafter. "We should make this bridge of sufficient strength to carry all pipes now running between our pulp and other mills, including the V flume, also for present pulp conveyor and all necessary handling of freight" (McBain, letter to T. W. Sullivan, 26-April-1913).

11. **MILL B/BOILER HOUSE (STEAM PLANT)** Built: 1923
Evaluation: Historic Contributing

Located to the north of the Mill A complex and separated from that portion of the paper plant by the T. W. Sullivan Hydroelectric Plant, Mill B/Boiler House, also called the "Steam Plant," contains multiple elements related to the paper production processes. Historic images show that this area was originally a series of small wood-frame, gable roof building, all presumably demolished for the construction of the present concrete volume in 1923, replacing an earlier and similarly designated structure (Stein, 1997:8). Today Mill B/Boiler House is a large multi-story concrete volume with industrial-type metal sash windows that houses numerous uses, including the boiler or steam plant, as well as several maintenance and engineering related shop spaces.

12. **MILL C** Built: 1925c
Evaluation: Historic Contributing

The first volume on this location, also known as Mill C, was constructed on this site in 1891 as the Willamette Pulp and Paper Company's Sulfite mill. While not entirely clear, the present concrete volume was clearly in place by the 1940s, replacing an earlier building that stood at least through 1911, when Sanborn Fire Insurance Maps document it as housing four paper machines and a pulp beater. This, earlier, building was comprised of two major gable volumes with prominent monitors that ran perpendicular to the locks, with a single gable volume that ran parallel to the river forming the eastern end. The monitors, in particular, aide in locating the building within available photographs.

The present Mill C structure, a multiple story concrete volume, is dated circa 1925, related to a period of expansion at the West Linn site. It does not appear to have been a part of the massive post-war construction project but can not be more specifically dated at this time.

13. **MILL K** Built:1919
Evaluation: Historic Contributing

This large concrete mill was constructed in 1919 under the direction of Harry Baxter, a long-time Crown Paper employee who began working at the West Linn mill 32 years earlier, having overseen the construction of the wood frame structures removed to make way for Mill K. "the new mill when complete will be known as Mill K and will extend from the north end of Mill C to Mill F. The plans have been well designed by Chief Engineer Frank F. Sullivan" (*Making Paper*, Dec 1919:28).[3] "The building is 439 feet in length and 60 feet in width...The building is well constructed for light and ventilation. Seventy-eight windows will be installed in the east side, overlooking the Willamette River, and fifty-six in the west..." (*Making Paper*, Mar 1920:32). Today Mill K houses Paper Machine #33 and various other uses.

14. **MILL K BLEACH PLANT** Built:1946
Evaluation: Historic Contributing

Built as an extension to Mill K during Crown-Zellerbach's massive post-war development program, the bleach plant is a large five story concrete structure and was built by L. H. Hoffman Company, of Portland. The structure is 82 feet by 106 feet is size, all reinforced concrete with an irregular window pattern. A transite panel covered addition to the east side is apparently an addition (undated) to the original structure. The Mill K Bleach Plant remains the tallest single element of the West Linn development.

15. **MILL J:** Built: c1895
Evaluation: Historic Contributing

Mill J, a single-story wood-frame building with 12/12 wood sash windows rises from concrete and stone foundation within the center of the West Linn development. Although not entirely clear, Mill J was probably built during the late 19th century by the Crown Paper Company as an element in its early development of the paper-making industry on this side of the channel. Constructed in typical late-19th

[3] Engineer Frank Sullivan was the son of T. W. Sullivan, longtime PGE employee for whom Station B was renamed in 1953. (See Resource #8).

industrial form, it is hard to distinguish Mill J from the several similar buildings in available period photographs as the designation "Mill J" does not appear to have been applied to the structure until significantly later. In 1889, for example, construction of the new sulphite mill of the Willamette Falls Pulp and Paper Company was described as "...the work to be of stone to above the high water mark, above which the structure will be of wood...a part being but one story. (*Oregon City Enterprise*, 5-Sept-1889). While it is not clear when Mill J was actually completed or what its original purpose may have been, the building, prior to the expansion of the sea wall to create additional land area, is clearly visible adjacent to the Willamette River is several early 20th century postcard views (see attached images), which were mailed in 1907 and 1908.

Mill J seems to be one of the oldest surviving paper-related structures in the Willamette Falls Industrial Area, probably dating to the late 19th century. Essentially unused, Mill J. today contains piping and various conduit that connect other, functional, portions of the operation.

16. **MILL F:** Built: 1946
Evaluation: Historic Contributing

This three-story steel-reinforced concrete volume was an element of Crown-Zellerbach's huge post-WWII modernization and expansion program. "Mill F, a processing plant,...will be 275 feet by 180 feet, three stories high,...with a steel truss roof which will give a huge room without other support" (*Oregonian*, 1-January-1946). L. H. Hoffman, of Portland, was the contractor and the building was designed by the Central Engineering Company, an affiliate of the Crown-Zellerbach company. Mill F, with large banks of industrial metal sash windows, as well as glass block, remains one of the largest single elements of the West Linn development.

17. **MILL D**: Built: c1907, rebuilt in 1946
Evaluation: Historic Contributing

Mill D is shown on this site in its original form as early as 1907 according to available historic images and was likely built shortly after the turn of the century by the Willamette Pulp and Paper Company. *(See Historic Image, Nos. 4 & 5)* In a April 1911 map prepared by T. W. Sullivan Mill D was identified as "W. P. & P. Co's New Paper Mill" and the structure is clearly visible in the 1911 Sanborn Fire Insurance Map of the area. One of the area's first "modern" concrete structures, Mill D has large rounded-corner insets framing its huge banks of industrial glazing, a feature that helps identify the mill throughout the period.

As one of the area's first concrete structures, Mill D helped establish the basic architectural model for the majority of the papermaking-related development on the West Linn side throughout the remainder of the historic period. In 1946 the structure was rebuilt and enlarged during Crown-Zellerbach's post-WWII construction program (*Oregonian*, 1-January-1946, 1:3). The most notable alteration was the extension to the north, now designated as the "Coating Plant," a large paneled volume that sits immediately adjacent to Mill D. A small "gable" pent also appears to a later, although undated, addition.

18. **OLD BOILER PLANT**: Built: c1900, pre-1909
Evaluation: Historic Contributing

Although not specifically dated, this structure was likely constructed around the turn of the century as the primary steam plant of the Willamette Pulp and Paper Company operation. In 1911 Sanborn Fire Insurance Maps of the area document the structure on the site and describe it as an "iron building, corrugated metal siding." The old boiler plant retains its large brick boilers with cast iron doors and fitting as well at three large riveted iron stacks. The metal structural system, now shorn of its "corrugated metal siding" rises from a concrete foundation. Long abandoned, the old boiler plant is no longer a functional or necessary element of the papermaking operation but remains one of the areas oldest structures and is associated with the early industrialization of the Willamette Falls area.

19. **OIL STORAGE TANKS**: Built: 1946c
Evaluation: Historic Contributing

These large storage tanks, two located immediately north of the Mill D "Coating Plant" and two larger tanks located at the northernmost point of land just east of the Willamette Locks, are not specifically

dated but are the latest in a long series of such features located in this area. The coating plant tanks likely date from 1946 and the construction of this portion of Mill D. The oil tanks at the northern end of the canal are likely older, possibly being the same as those depicted in the 1911 Sanborn Map, but have not been specifically dated.

20. **UNUSED OIL STORAGE TANK**: Built: pre-1946
Evaluation: Historic Contributing

This large steel tank, located on the western side of the northern end of the canal, is nestled into the slope of the bank that rises to West Linn. Flat-roofed and built of rolled steel plates, the tank is currently unused and of uncertain date but seems likely to have been constructed prior to the end of the historic period.

21. **WILLAMETTE FALLS LOCKS AND WEIGHMASTER'S OFFICE**: Built: 1870, 1916-1921, 1941
Evaluation: Historic Contributing

The locks at Willamette Falls were begun in the early 1870s and opened in 1873. First developed by the Peoples Transportation Company, through a series of acquisitions this transportation corridor came under common ownership with the companies that developed the initial hydroelectric project at the Falls and were operated by these various predecessor corporations to Portland General Electric until 1915. At that time the U. S. Army Corps of Engineers purchased the locks and retains ownership today. The Willamette Falls locks and its related features were listed on the National Register of Historic Places in 1974 and have subsequently been designated as a State Historic Civil Engineering Landmrk (US Army Corps of Engineers, 1996). The wood-frame Weighmaster's Office is now used as a museum and historical information center. A non-historic office building housing Army Corps offices is a non-contributing element within the project.

22. **MAIN OFFICE BUILDING**: Built: 1919
Evaluation: Historic Contributing

A multi-story ell-shaped wood-frame building, the main office of the West Linn Paper Company is located on the western side of the upper canal and was apparently built in two phases, the first circa 1919, probably in connection with the construction of the Crown-Willamette Inn Annex, a similarly designed structure (*Making Paper*, 1919:28). Long used as the office of the various paper companies that have operated on the West Linn side of the river, the Main Office Building continues to serve in that function for West Linn Paper today. The design is notable for its two gabled covered porches face to the west, finely detailed in a bungalow-inspired fashion with projecting rafters and pinned mortise and tenons at the paired support posts. Exterior siding is horizontal wood and windows are predominately 2/2 wood sash with some later aluminum sash modifications on the first floor. An addition, undated but apparently completed prior to 1950, extends from the SE corner of the main volume, creating the present "ell."

OREGON CITY [EASTERN] BANK

23. Corporate Offices [Former Post Office] : Built: 1932, modified 1970s
Evaluation: Non-Historic, Non Contributing

Originally built in 1932 as the Oregon City Post Office and designed by the noted Oregon architectural firm of Knighten and Howell, this two-story building was originally a gabled volume with stripped classical detailing. It was substantially remodeled and modified to its present appearance in the 1970s following purchase for use as the corporate offices of Publishers Paper Company. While apparently incorporating some elements of a historic building, the present volume has been so thoroughly altered that the result maintains virtually no connection to its original design and is accordingly considered non-historic.

24. Security/First Aid Building: Built: c1970s
Evaluation: Non-Historic, Non Contributing

A small single story masonry building, this structure was presumably built in the late-1970s/early 1980s following the removal of the early commercial structures that stood on this site. The present structure has no historic significance.

25. Fire Station: Built: c1955
Evaluation: Non-Historic, Non Contributing

Built of concrete block, probably in connection with the construction of the filtration plant, this structure, has no historic significance.

26. Filtration Plant: Built: 1954, upper addition added
Evaluation: Non-Historic, Non Contributing

This concrete structure was completed in 1954 and later modified with an upper story. Although an integral portion of the operation, this structure does not have any historic significance at this time.

27. Truck Unloading Shed/"Green Monster" Built: 1960s
Evaluation: Non-Historic, Non Contributing

A large steel frame structure with metal siding, this multi-story shelter allows for the unloading of trailer loads of materials used in the manufacturing process. Known within the project a the "Green Monster" because of its paint color, this building has no historic significance.

28. Chip and Sawdust Silo: Built: 1960s
Evaluation: Non-Historic, Non Contributing

One more visible elements of the Oregon City papermaking operation, this large multi-story silo is no longer in use and has no known historic significance.

29. De-Inking Annex/Repulper Built: 1960s
Evaluation: Non Contributing

This metal-clad northern extension of the De-Inker [Mill B] was built circa 1960.

30. **MILL B [DE-INKER]:** Built: 1928
Evaluation: Historic Contributing

Constructed following the demolition of a Portland Railway Light & Power Company freight shed that long stood on this site at the corner of Main and 3rd streets, this multi-story concrete volume with multi-pane industrial steel sash windows was completed in 1928 and was originally designated as "Mill B." After 1916 this parcel was the only portion on the east side of Main south of Fourth that was not owned by the Hawley company (*Oregon City Enterprise*, 7-January-1916, 1:5). Company records indicate that Mill B, now known as the "De-Inker" was constructed in connection with the remodeling and expansion of Paper Machine No. 4 and the design of both buildings bears a striking similarity. As late as 1979 various drawings continue to use the "Mill B" name.

Mill B is approximately three stories height with cast concrete columns and a Moderne cornice detail. Glass block windows remain on the upper portion with the first floor panels being of plain concrete. Various ancillary uses (tanks, sheds, piping, etc.) are located around the perimeter of the structure.

31. **PAPER MACHINE NO. 4:** Built: 1916/1919, modified 1928
Evaluation: Historic Contributing

The initial construction of Paper Machine No. 4 was a part of a period of massive expansion by the Hawley Paper and Pulp Company. "1916 property was purchased and another building was built for another paper machine, No. 4. To make room for this building, the McLaughlin House was moved to present location." (Fosberg, 1967). In 1919 a new "North End" was constructed adjacent to the PM No. 4, that was known as the "Finishing House." This facility was built by Hurley-Mason. (See drawing #805-13, dated 13-June-1919, Blue Heron Plan Vault)

In 1928 Hawley replaced No. 4 with a new newsprint machine, which at the time was the largest and fastest of its type in the western United States. "We have just installed a new paper making machine...which operates at the rate of one thousand two hundred feet a per minute and will produce

120 tons of finished paper a day.. this new machine cost two million dollars" (W. P. Hawley, as quoted in Lockley, 1928:138). It appears from available blueprints that the building was enlarged in conjunction with the installation of the new newsprint machine. V. D. Simons, with offices in the Tribune Tower, Chicago, Illinois, served as the engineer in charge of the project.

The Paper Machine No. 4 building has been subsequently remodeled and expanded, with various additions that expand its original footprint. Still, the exposed concrete exterior, engaged columns, large industrial windows, and overall character of the structure remain intact, effectively relating its original period of development.

i. **NO. 4 WAREHOUSE** Built: 1919, as modified
Evaluation: Historic Contributing

The northern portion of this volume, now designated "No. 4 Finishing Room and Warehouse," was apparently built jointly with the Paper Machine No. 4 building and is of similar concrete construction and design. Subsequent additions expanded the volume to its present footprint at some point prior to the mid-1940s according to available photographs. Separated from that building by a covered rail spur, the northern end of the No. 4 Warehouse is a shipping shed, a later addition built following the closure of 3rd Street and the construction of the northernmost extension to the No. 4 building proper.

32. **MILL C/DIGESTER/SULFITE MILL:** Built: pre-1916, as modified
Evaluation: Historic Contributing

This wood-frame volume was built sometime prior to 1916, when it was reported that its "...size was being greatly increased" (*Oregon City Enterprise*, 22-June-1916, 1:5). The building was originally designated as Mill "C." The structure contains two basic halves, the "digesters" on the north and a sulfite plant on the south. Neither are presently in use. In the Meldrum Survey of the Hawley Pulp and Paper plant, prepared in 1926, the northern portion, 50' x 132' in size, was identified as "Digester and Wet Machine Building," while the southern portion, 40' x 107' in size, was in use as a warehouse. In 1951-1952 significant modernization of Mill C occurred, including the installation of new machines and equipment that likely occurred concurrently with exterior remodeling or alteration to the original structure (See Blue Heron Paper Company, Photo Negatives 3859-3867 et seq.). The Sulfite Mill, apparently the southern portion of the structure, was closed in 1983.

The Mill C/Digester is a large transite-clad volume approximately five stories in height with a monitor-like roof. The southern, "sulfite plant\warehouse" extension in approximately three and half stories in height, with a modified shed roof. The footprint of the building is irregular, following the access street on the west side.

33. **MILL D WAREHOUSE:** Built: 1916, 1945-1946, as modified
Evaluation: Historic Contributing

Originally providing storage space adjacent to Paper Machines No 2 and No. 3, the western portion of the Mill D Warehouse housed two uses according the 1926 Meldrum map of the Hawley Plant, with the western volume designated as "Mill #3 Warehouse," and the eastern portion identified as Paper Machine No. 2." It is not clear to what extent the present structure contains elements of either or both of these buildings although the general character of the structure seems consistent with the early development of this area in 1916. Mill D, and probably the warehouse, were modified in 1945-1946 according to information in the company archive. At some undocumented time the footprint of the Mill D Warehouse has been extended by the construction of the covered loading bay that now projects to Main Street.

34. Butler Building [Hawley Office/Spectator Site] : Built: 1970c
Evaluation: Non-Historic, Non-Contributing

Originally this location was the site of the Hawley company's corporate office, located in an early dwelling that was relocated in 1916 from across the street in preparation for construction of what Paper Machine No. 4. This historic volume apparently remained as office space at least through 1967 (Fosberg, 1967). The present metal storage building was built following its removal.

35. Paper Machine No. 2 [Site] : Built: 1910, 1982
Evaluation: Non-Historic, Non-Contributing

Paper Machine No. 2, built on this site circa 1910 (although possibly an adaptation of an earlier industrial volume on the site) was a brick volume with a gable roof (Smurfit Paper Company, *Timeline of Mill Site Events*, 1993). In 1982 the machine was shut down and sometime later the building was essentially dismantled. Today, while portions of the exterior brick walls and the concrete floor remain as an interior element of the surrounding volumes, the structure is largely gone.

36. **PAPER MACHINE NO. 3:** Built: 1912-1913, as modified
Evaluation: Historic Contributing

Although not specifically dated, Paper Machine No. 3 was added to the Hawley plant in 1912-1913 and this gabled masonry volume was likely built at that time. "In 1910, machine No. 2...was installed. This was followed by machine No. 3, which began produced toweling, poster paper and light weight wrapping paper in 1913" (*Oregon City Enterprise*, 20-August-1936, 31:3-6). With various medications and alterations this structure continues in its original use.

37. **MILL "O" [OREGON WOOLEN MILL ANNEX] :** Built: 1903, as modified
Evaluation: Historic Contributing

A multi-story wood-frame volume, this structure was almost certainly built as an "annex" to the Oregon City Woolen Mill which originally stood on this block facing Main Street. In July 1903 a fire destroyed several of the woolen mills structures and the following month the company announced its plans to rebuild. "Structures for the accommodation of the boiler room, dye house, pullery and other outside buildings will be erected. ...Most of the buildings will of wood and corrugated iron and the principal structure will be three stories high *and will be directly connected to the main building* (*Oregon City Enterprise*, 21-August-1903, 5:3, emphasis added). Mill "O," the subject volume, remained with the 19th century brick woolen mill structure itself was demolished in 1980-1981 (See *Oregonian*, 6-May-1980 and Letter to Donald Nicholson, in the Willamette Falls/Publishers Paper file, SHPO, 1981).

Mill O, a large multi-story wood-frame structure clad with mixed wood and corrugated metal siding as well as large multi-pane industrial sash windows, houses a variety of functions related to the present paper manufacturing operation. These include storage and warehouse space but most notable is the lab, located at the extreme western end of the building.

38. **OREGON WOOLEN MILL FOUNDATION WALLS:** Built: 1865, 1872, 1900 modified in 1981
Evaluation: Historic Contributing

i. Mill O Covered Storage
ii. Contractor Trailer parking area

This site was originally the location of the Oregon Woolen Mill Building, built in 1865 upon a foundation of tapered "Columbia River basalt" and then rebuilt following a devastating fire in 1872. "In the morning, all that remained was the masonry walls" (Olson & Sutton, 1975). Long operated with sporadic economic success, in 1980-1981 the woolen mill building was demolished however the massive random-coursed basalt foundation was largely retained, framing the sunken cellar area once occupied by this early building. Today these walls define an open parking area designated for "Contractor Trailer Parking," and a second area covered with a metal-framed standing-seam metal roof that is designated as "Mill O Covered Storage" area on project maps.

The walls of the Oregon Woolen Mill represent a portion of one of the oldest industrial structures in the Pacific Northwest and retain sufficient integrity to their original purpose to relate the scale and character of this early industrial development.

39. Shop Buildings — Built: 1960s, modified
Evaluation: Non-Historic, Non-Contributing

i. Carpenter Shop
ii. Millwright Shop
iii. Pipe Shop
iv. Auto Shop

This series of modest structures all appear to post-date the historic period and are so counted as non-contributing.

40. Mill H [Boiler Plant]: — Built: 1955-56
Evaluation: Non-Historic, Non-Contributing

During the historic period this portion of the Oregon City side of the industrial area was occupied by a large structure called "Mill H," operated by the Crown-Willamette/Crown-Zellerbach Paper Company, the entity generally associated with the West Linn side of the area. This structure, in place at least by 1926 continued in operation throughout the 1930s and into the 1940s. Eventually purchased by Publishers Paper Company, successor to the Hawley Pulp and Paper Company, in 1955 the original Mill H was substantial razed and remodeled to its present configuration, serving as the primary boiler location for Publishers Paper and its corporate successor operations.

41. **PAPER MACHINE NO. 1:** — Built: 1923
Evaluation: Historic Contributing

In 1909 Hawley Pulp and Paper Company's first paper machine was installed in this location in a building that had formerly been occupied by the Portland Flouring Mills. The Hawley company produced its first paper on this site in March 1909. "This machine and building in which it was located were completely destroyed by fire on October 8, 1923. The present building of fireproof construction was then erected and the new No. 1 machine installed..." (*Oregon City Enterprise*, 20-August-1936, 31:3-6).

42. **MILL #1 FINISHING ROOM/BLEACH PLANT** — Built: 1923
Evaluation: Historic Contributing

Probably the single most distinctive structure associated with the Hawley Pulp and Paper Company, this four story concrete structure is notable for its stepped parapet, engaged columns and the "Hawley Pulp and Paper" legend still visible under paint on the south-facing elevation. Built on the site of the original David Harvey mill, one of the earliest uses of the Willamette Falls for waterpower, the property was first converted to paper production in 1908-1909 with the establishment of the Hawley company. Burnt in 1923, the present concrete was built upon that site and is documented in the Meldrum map of the area, along with several smaller volumes to the north. The building is now generally referred to at "the Bleach Plant."

The Mill #1 Finishing Room was long the most photographed of the various structures at the Hawley Plant, its distinctive parapet standing out from the Pacific Highway and so the subject of several postcard views. Although the building has been somewhat modified, its original multi-pane sash windows replaced with the present large panes, the distinctive signage at the parapet remains visible beneath the present paint and the overall character is substantially intact.

43. Mill E [Offices] — Built: 1944-45, 1970
Evaluation: Historic, Non-Contributing

In the early 20th century this location east of the log pond remained vacant, bisected by the PRL&P rail line that continued through Main Street to downtown Oregon City. In the mid-1940s a sawmill designated as Mill E was erected here, processing logs that were floated into the pond. In the 1970s this structure was significantly modified and re-designed. Today Mill E houses a number of uses, most notably various maintenance shops and the mill offices. While built during the historic period, Mill E retains little visual character with its original design or function.

44. Clarifier Built: 1967
Evaluation: Non-Historic, Non-Contributing

This large concrete-lined holding tank and processing unit is the first stage in the effluent system of the Blue Heron Paper Company system. Excavation begin in April 1967 and the clarifier was first used in September of that year.

45. **STATION A [MILL A] FOUNDATION**: Built: 1889, modified 1909, 1960s
Evaluation: Historic Contributing

In 1889 the Willamette Falls Electric Company constructed the first hydroelectric generation facility at the Falls on this location and in June 1889 successfully transmitted direct current power to downtown Portland, a distance of approximately 12 miles. "The small building from which this historic event originated was known as the Willamette Falls powerhouse, or Station A...This transmission of power is generally thought o the first ever long distance transmission of electricity in the United States" (PGE/Smurfit, Dec. 1998). In 1890 Station A was converted to AC, or alternating current, which would become the national standard for electrical use. In September of that year AC power was transmitted to Portland, again the first recorded long distance electrical transmission for commercial use in the United States. In 1897, after the opening of the huge hydroelectric facility on the West Linn side of the channel (Station B, now the T. W. Sullivan Plant), Station A was abandoned and some of its equipment relocated to Station B. For a short period Station A was leased to the Willamette Pulp and Paper Company. "It was subsequently leased to the Hawley Pulp and Paper Company, which replaced the vertical water wheels with horizontal wheels to be used for pulp-grinding purposes" (PGE, 1957). This conversion apparently occurred in 1909, as in January of that year Portland Railway Light and Power engineer T. W. Sullivan noted in a letter to Franklin Griffith, company president that "This morning I was...looking over the situation there and noticing that the Hawley Pulp and Paper Co's men were unloading cord pulp wood ...into our old Station A, I went over and into said Station A and found that the Paper Co. had the plant in operation making pulp" (Sullivan, 9-January-1909).

Hawley continued to use the Station A site as a part of their operation, renaming it "Mill A." The building was remodeled extensively in 1941 and again in 1943 and possibly in 1947 according to available records. Mill A, bypassed technologically with the development of Mill E, apparently remained standing but was little used after the 1950s. The facility was severely damaged in the 1964 flood and was later razed. Today, the massive concrete foundations and steel intakes and gates remain, located at the head of the log pond on the southern end of the Oregon City development.

46. **HAWLEY POWERHOUSE**: Built: 1916
Evaluation: Historic Contributing

Built in 1916 as a component of Hawley's major expansion, the Hawley Powerhouse is a rectangular wood frame structure with a massive concrete foundation that forms a portion of the forebay wall. Plans for the new plant, built by the Grace and Rassmussen Company of Portland, were announced in Spring 1916. "The pulp mill and generating plant will be located on the brink of the falls, near Station A. It will be a concrete structure..." (*Oregon City Enterprise*, 5-May-1916, 1:2). "All the concrete work is done ...on the...generating plant on the island near station A and much of the machinery is already in Oregon City and some is installed" (*Oregon City Enterprise*, 8-December-1916, 1:1).

The Hawley Powerhouse, (also known as the Smurfit Powerhouse, after a later corporate entity) continues to generate power and is a component of FERC License No. 2233. While somewhat modified, the basic structure of the powerhouse, including its generation equipment and the majority of its features, remains virtually as built.

HISTORIC CONTEXT

The Willamette Falls Industrial Area developed within several overlapping and related historical contexts, beginning with the settlement of the Oregon Territory and continuing through the development of the transportation corridor along the Willamette River, the operation of various water-powered industries around the Falls, the pioneer development of hydroelectricity in the Portland area, and ultimately the construction and operation of the pulp and paper plants that still largely characterizes the area. A complete contextual statement of the forces that helped create the present development of the Willamette Falls Industrial Area is beyond the scope of this document. In general, however, the Willamette Falls Industrial Area is based on a natural feature, the Willamette Falls. John McLaughlin, agent for the Hudson Bay Company in the Pacific Northwest, established his trading post in this general area in the 1820s and soon a small settlement, one of the first in what would become the Oregon Territory, was developed along the eastern shores of the channel. This community, Oregon City, grew dramatically with the opening of the Oregon Trail and the first large scale influx of settlement in the 1840s.

> "In 1844 Cincinnati and Chicago were little more than villages. San Francisco was a sleepy Spanish Fortress. Seattle was an Indian village with a fur trading post and Portland, although it had one house, was distinguished chiefly as the site of Sauvie's Dairy on Wapato Island. Oregon City was platted, had streets, two churches, the Pioneer Lyceum and Literally Club, mills, a ferry, and the beginnings of a fine apple orchard in the yard of the Methodist parsonage (Welsh, 1941:12).

In a era of waterpower, the industrial potential of the Willamette Falls in the 19th century was readily apparent. As early as 1829 McLaughlin had began development of a sawmill on the east side of the river. "I commenced making preparations to built sawmill...In the year 1832 I had a mill race blasted out of the rocks, from near the head of the island which Mr. Thurston calls Abernethy Island..." (as quoted in Welsh, 1941:6). Later developments at the Falls included expanded water-powered saw milling operations and, by the mid-1840s, a flouring mill as well. Virtually all early commentaries on the Willamette Falls note its value as a power source in the development of Oregon's industrial economy. As early as 1835,

> The opportunities here for water power are equal to any that can be named. There cannot be a better situation for a factory village than on the east side of the river, a dry, wide-spread level extends some distance, and the shores form natural wharves for shipping . . . I could hardly persuade myself that this river had for many thousand years, poured its waters constantly down these falls without having facilitated the labor of man (Parker, 1967[1838]:163).

As Oregon City grew on the eastern side of the Falls, Robert Moore platted a sister community, Linn City, on the channel's western bank. Moore's burgeoning community was largely destroyed by high water in 1861 and the land on the west bank remained for more than a decade, awaiting the development of the Willamette Falls Locks, a major transportation link in the development of the state.

The Falls, the vaunted and dangerous "end of the Oregon Trail," had long proved an formidable obstacle to between the populous Portland area and the agricultural and natural-resource rich interior. Attempts to create a navigable passage at the Falls had long been impeded by the monopolistic practices of the various entities that maintain portage rights around the Falls and sought to maintain control over wheat shipments from the interior to Portland. Eventually a collection of merchants and wheat growers succeeded in the development of system of locks, dramatically easing passage. "[T]he costly canal and locks paid off handsomely to wheat farmers and Portland grain brokers and commission merchants who had warmly celebrated their opening on January 1, 1873. Freight rates between the upper and lower Willamette Rivers immediately plunged 50 percent" (MacColl, 1988:155).[4]

Meanwhile, the hydropower potential of the Falls continued to gain notice and draw industrial development. In 1866 W. W. Buck established Oregon's first paper mill at Oregon City with $50,000 in capital. The mill started operation on January 12, 1867 (Adams, 1951:4). Buck's venture was short-lived, closing less than a year later, but the potential of establishing a papermaking center at Willamette Falls was clear. In 1883 the second paper-making venture at the Falls was begun on the east bank, under the name Willamette Falls Pulp

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[4] See resource No. 21, above, for the Willamette Locks, previously listed on the National Register of Historic Places.

and Paper Company, soon changed to Willamette Pulp and Paper Company. Production as a pulp mill began in October 1889 with output of 20 tons per day. Almost immediately construction on a second sulphite mill, capable of making a higher grade product, was begun under the direction of Thomas W. Sullivan, the company's superintendent of construction (Adams, 1941:11).

In the early 1880s the noted financier Henry Villard, who had gained control of the Willamette Transportation and Locks Company, incorporated into his Oregon Railway and Navigation Company, hired Swiss engineer P. Miescher to survey the hydroelectric potential of Willamette Falls (Coldwell, 1930:284). Following Villard's bankruptcy, Edward L. Eastham of Oregon City began to formulate a plan to produce hydroelectric power at Willamette Falls as the basis for a new industrial development. Toward that goal, Eastham methodically began to acquire the land and water rights on both banks of the river [and] established the Oregon City Electric Company. "By 1887 [Eastham] had practical control over Willamette Falls in all its aspects....On or about 1-November-1888 the company began generating electricity from the falls..." (Wollner, 1990:23-24). This plant, later called "Station A" stood on a small rocky island on the Oregon City side of the channel.[5]

In June 1889, after Eastham's company had merged with a Portland-based competitor to form the Willamette Falls Electric Company, the company successfully transmitted Direct Current (DC) power from Station A to downtown Portland. The transmission "...worked magnificently and conclusively demonstrated the fact that our city can be lighted successfully from the Falls," (*Oregonian*, 4-June-1889). The June 1889 transmission of power from Willamette Falls to downtown Portland, approximately twelve miles, is recognized as the first-ever long distance electrical transmission in the United States. In 1890, with the conversion of Station A to Alternating Current (AC), the company again made history when it successfully transmitted power from the Falls to downtown Portland. "This was another 'first,' — the first instance of long distance transmission of alternating current for commercial purposes in the United States" (Griesser, 1982:4).

As electrical development occurred, another paper mill was developed at the Falls, operated by the Willamette Falls Pulp and Paper Company, and located on the West Linn side of the channel. Production began in 1890 and was expanded in 1892 with the arrival of a new superintendent, Willard P. Hawley. The Willamette mill also expanded and by 1896 opened its No. 3 paper machine, said to the be first to be operated by electricity (Adams, 1951:13).

In 1892 the Willamette Falls Electric Company, operators of Station "A," the hydroelectric facility at Oregon City, and the Willamette Transportation and Locks Company, operators of the locks on the West Linn side of the Falls, merged and formed the Portland General Electric Company. At this same time a new and enlarged dam at Willamette Falls was completed. The new dam "...extended from bulkhead of Station A on the easterly side of the river to the head of the Falls and across the top to the section built earlier by Willamette Pulp and Paper Company. This latest section of timber crib dam was approximately 950 feet in length" (PGE, 1958:Q3-4).

The new dam added to the height of the waterfall, creating additional head, and therefore added substantially to the hydroelectric potential of the site. To take improved advantage of the falls, engineer T. W. Sullivan was asked to design a new generating plant on the river's west side. Sullivan, after having designed the works of the Willamette Falls Pulp and Paper Company plant, had been hired by the electric company to redesign Station A following its damage by flood in February 1890. Soon named Hydraulic Engineer for the Willamette Falls Electric Company, Sullivan retained that position in the newly formed Portland General Electric Company and would remain with each of its various successor firms until his death in 1940.

Construction for the new plant on the West Linn side of the channel, dubbed "Station B," began in 1893 and it went into commercial operation in December 1895.[6] Today, renamed the T. W. Sullivan Hydroelectric Project, the thirteen turbines of Station B still produce hydroelectric power at the Falls, representing the

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[5] See resource No. 45, above, for the history of Station "A" and its relationship to what eventually became "Mill A" of the Hawley Pulp and Paper Company.

[6] See Resource No. 8, above, for details on Station B and its history.

second oldest continuously operated hydroelectric project in the nation and the oldest west of the Mississippi.[7] The significance of the T. W. Sullivan Plant was recognized by its induction into the Hydro Hall of Fame, maintained by Hydro Review, an industry publication.

While PGE and its various corporate predecessors were expanding and updating electrical generation capacity at Willamette Falls, other entities were transforming the area into a pulp and papermaking center serving the entire west coast of the United States. The typical turn-of-the-century booster spirit found fertile ground at Willamette Falls and period publications referred to the area as either the "Niagara of the Pacific," in reference to the area's presumably untapped hydropower or as the "Lowell of the Pacific," based on the assumption that the already-in-place industrial development was the equivalent of that vaunted Massachusetts milling town.[8]

In 1908, after a series of financial difficulties impacted the Willamette Pulp and Paper Company operation on the west bank of the river, long-time plant manager Willard P. Hawley secured financing to start a new paper plant on easterly bank. "In 1908 I purchased the old Portland Flouring Mills at Oregon City. I also acquired their power rights" (W. P. Hawley, as quoted in Lockley, 1928:138-144). Hawley's company, the Hawley Pulp and Paper Company, along with the re-organized Crown Willamette mill on the West Linn side (soon to become Crown Zellerbach) established the Willamette Falls area as one of the most productive paper manufacturing centers on the Pacific Coast. In 1919 there were four paper mills and seven pulp mills in Oregon.[9] Of these eleven facilities, eight were located at Willamette Falls (Chamber of Commerce, 1924:15).[10]

Continual expansion and modernization, with peaks of activity in the mid-1920s and then again following World War II, allowed the two major papermaking entities at Willamette Falls to remain competitive. The early companies, both Crown Willamette and Hawley, underwent various corporate restructuring and sale after World War II. In 1948 the Hawley Pulp and Paper Company was sold and renamed Publishers Paper Company, owned and operated by Times-Mirror and the Chandler Family of the *Los Angeles Times*. In 1985 Publishers was sold to Smurfit Newsprint Corporation and most recently the plant was purchased and reorganized into the present operation, Blue Heron Paper Company. Similar corporate change has occurred on the western side of the channel as well. In 1928 Crown-Willamette, which had emerged from a series of various earlier companies, merged with the Zellerbach Paper Company and the West Linn mill became a part of the combined Crown-Zellerbach Paper Company, the largest such concern in the West (Stein, 1997:9). After Crown-Zellerbach was purchased by the James River Corporation in 1986, the company was restructured and the West Linn mill was purchased by the

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[7] The Vulcan Street Hydroelectric Central Station, in Appleton, Wisconsin, opened in 1882 and remained in operation at least as late as 1997. The Appleton Plant produces only a modest 12.5 kW of power, less than one-tenth the power output of Sullivan, which is by far the largest producing 19th century hydroelectric plant identified as still in operation in the United States. (See *Hydro Review*, October 1997:34)

[8] See, for example, Gaston "From a very early time Oregon City was called the Lowell of the Pacific coast. The first flouring mills were at the falls, and the first sawmills" (Gaston, 1911:671). An 1894 publication of the Oregon City Board of Trade was entitled "Willamette Falls: The Niagara of the Pacific" and noted that "....when a great water power like that of the Willamette falls at Oregon City is made available it gives to the place where it is turned to use unmistakable promise of growth" (Board of Trade, 1894:1).

[9] These statistics refer to the function of the mill, with each site typically containing more than one "mill" operation. The Oregon Pulp and Paper Company, in Salem, for example, operated a Sulphite pulp mill as well as wrapping paper mill, counted as two of the states nine production units in Lockwood's Directory of Paper and Allied Trades.

[10] The mills reported by the Industries Committee of the Portland Chamber of Commerce's "Report on the Paper and Pulp Industry," were the Lebanon, Oregon mill of the Crown Willamette Paper Company, the Crown Willamette Paper Company and the Hawley Pulp and Paper mills at Oregon City (at this time Crown Willamette operated mills on both sides of the river), the Oregon Pulp and Paper Company at Salem and the Crown Willamette Paper Company mill at West Linn. Of the state's total pulp production (both ground wood and sulphite) of 820 tons, the mills at Willamette Falls produced 720 tons, or 88%. The Crown Willamette Mill at West Linn alone produced 485 tons, or more than half the State's total production of pulp. The comparative role of Willamette Falls in paper production was equally impressive — of Oregon's total production of 503 tons, Willamette Falls mills produced all but 18 tons, or 96%.

Simpson Paper Company in 1990. Simpson closed the mill in 1996 and in 1997, under new ownership, the mill re-opened as the West Linn Paper Company, which owns and operates the plant today.

While somewhat less convoluted, the ownership history of Station B, the hydroelectric plant within the West Linn complex, has also undergone certain reorganization. Developed by the Willamette Falls Electric Company, corporate restructuring eventually transferred ownership of the plant to Portland Railway Light and Power Company, a mammoth entity that combined the assets of more than thirty predecessor companies in 1906. PRL&P itself was reorganized into what was known as the Portland Electric Power Company, or PEPCO, in 1924 and, finally, emerged as Portland General Electric, or PGE in the 1940s. In 1953 Portland General Electric fully rebuilt the generation equipment at Station B, replacing all but one of the project's thirteen turbines with more efficient ones, and extending its productive life. The project was renamed T. W. Sullivan, in honor of the company's pioneering hydraulic engineer and today continues as a valuable component of the company's hydroelectric capacity. Today, as the successor to a broad series of interests at Willamette Falls, Portland General Electric owns and operates the Sullivan Plant, the Willamette Falls Dam, and much of the land and water right in the area, leasing portions to the two paper companies, who themselves own buildings on PGE property as well as owning portions of the project outright. The various inter-connected leases and legal arrangements concerning the densely development Willamette Falls Industrial Area are the subject of voluminous legal documents that are beyond the scope of this document.

STATEMENT OF SIGNIFICANCE: (CONTINUED FROM PAGE 1)

The Willamette Falls Industrial Area, containing a multiple individual resources associated with the early development of hydroelectricity and the papermaking industry in Oregon, is one of, if not the oldest, continuously operated industrial site in the state. First developed in the 1830s as a sawmill, the Willamette Falls served as a focal point for the initial water powered industrial development in Oregon City and, with the development of "Station A," the first commercially viable hydroelectric generation facility in the state. In 1865 the availability of waterpower led to the development of one of Oregon's earliest woolen mills at Oregon City, the foundations of which remain and later, the development of the region's major papermaking center.

The Willamette Falls Locks, developed in 1873 by a predecessor corporation to Portland General Electric, were sold to the United States government in 1915 and are now owned and operated by the U. S. Corps of Engineers. The locks and their related facilities, lining the West Linn Paper Company and the Sullivan Plant, on the western side of the Willamette River, were independently listed on the National Register of Historic Places in 1974 and in 1991 were designated as a State Historic Civil Engineering Landmark by the American Society of Civil Engineers. (US Army Corps, 1996)

Station B, renamed the T. W. Sullivan Hydroelectric Plant in 1953, remains the oldest standing building in the Willamette Falls Industrial Area and continues to function as designed, generating 16 MW of hydroelectric power under Federal Energy Regulatory Commission License No. 2233. The T. W. Sullivan Hydroelectric Project is the second oldest continuously operated hydroelectric generation facility in the United States and was an original inductee to the Hydropower Hall of Fame.

While the manufacture of pulp and paper at Willamette Falls dates to the mid-19th century, the modern development of paper making facilities dates from the late 1880s with the development of the Willamette Falls Pulp and Paper Company facilities on the western river bank. Successful paper production began on the West Linn side of the river with the construction of the Willamette Pulp and Paper Company, eventually transformed into Crown Willamette Paper Company. Today, operated as the West Linn Paper Company, multiple buildings dating from the period of historic significance remain, continuing more than a century of industrial tradition. Across the river, on the Oregon City side of the channel, Blue Heron Paper Company continues to utilize buildings initially developed by the Hawley Pulp and Paper Company in the first two decades of the 20th century, also continuing the tradition of dense industrial use that characterize Willamette Falls Industrial Area.

The Willamette Falls Industrial Area, including the Willamette Falls Dam, the Willamette Falls Locks, and Grinder Room #2, Grinder Room #3, Station B (T. W. Sullivan Hydroelectric Project), Mills B, C, D, F, J, K, and numerous other structures and buildings on the West Linn side of the channel related to the paper

industry, as well as the Hawley Powerhouse, Paper Machine No. 1, Mill B, Paper Machine No. 4, Mills C and D, Mill O Annex and various other structures on the Oregon City Side developed by the Hawley Pulp and Paper Company, along with resources related to both the mid-19th century Oregon Woolen Mill and Station A, the first hydroelectric plant in Oregon , represents one of the oldest and most densely developed industrial areas in the state.

With strong associations to the early development of both hydroelectricity and the production of pulp and paper products, the Willamette Falls Industrial Area ***is significant under Criterion A*** for its role in the history of industrialization of Oregon. Certain structures within the complex, most notably Station B (T. W. Sullivan) are additionally significant under Criterion C, for their technological association with the development of hydroelectric power technology in the 19th century.

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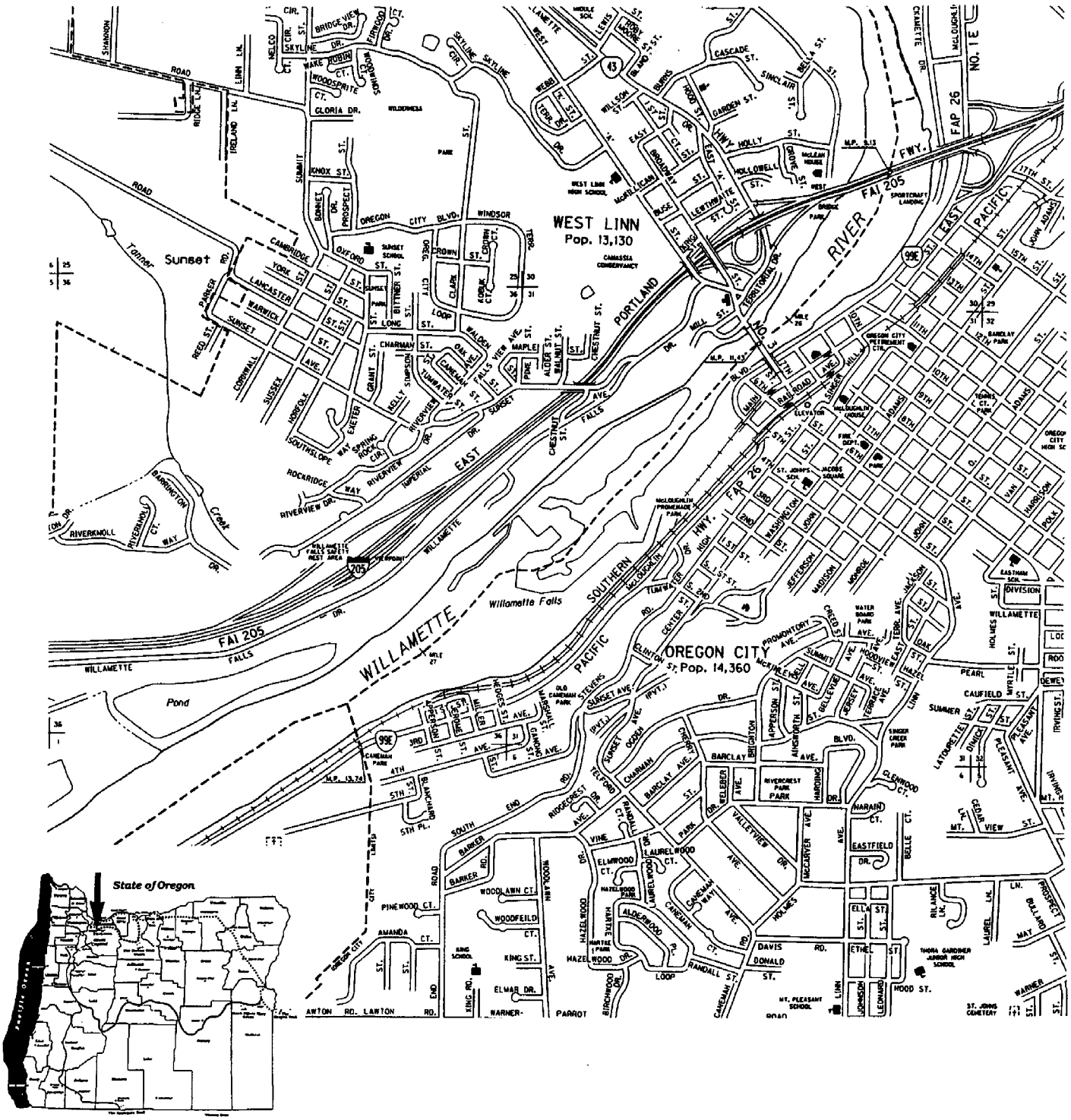
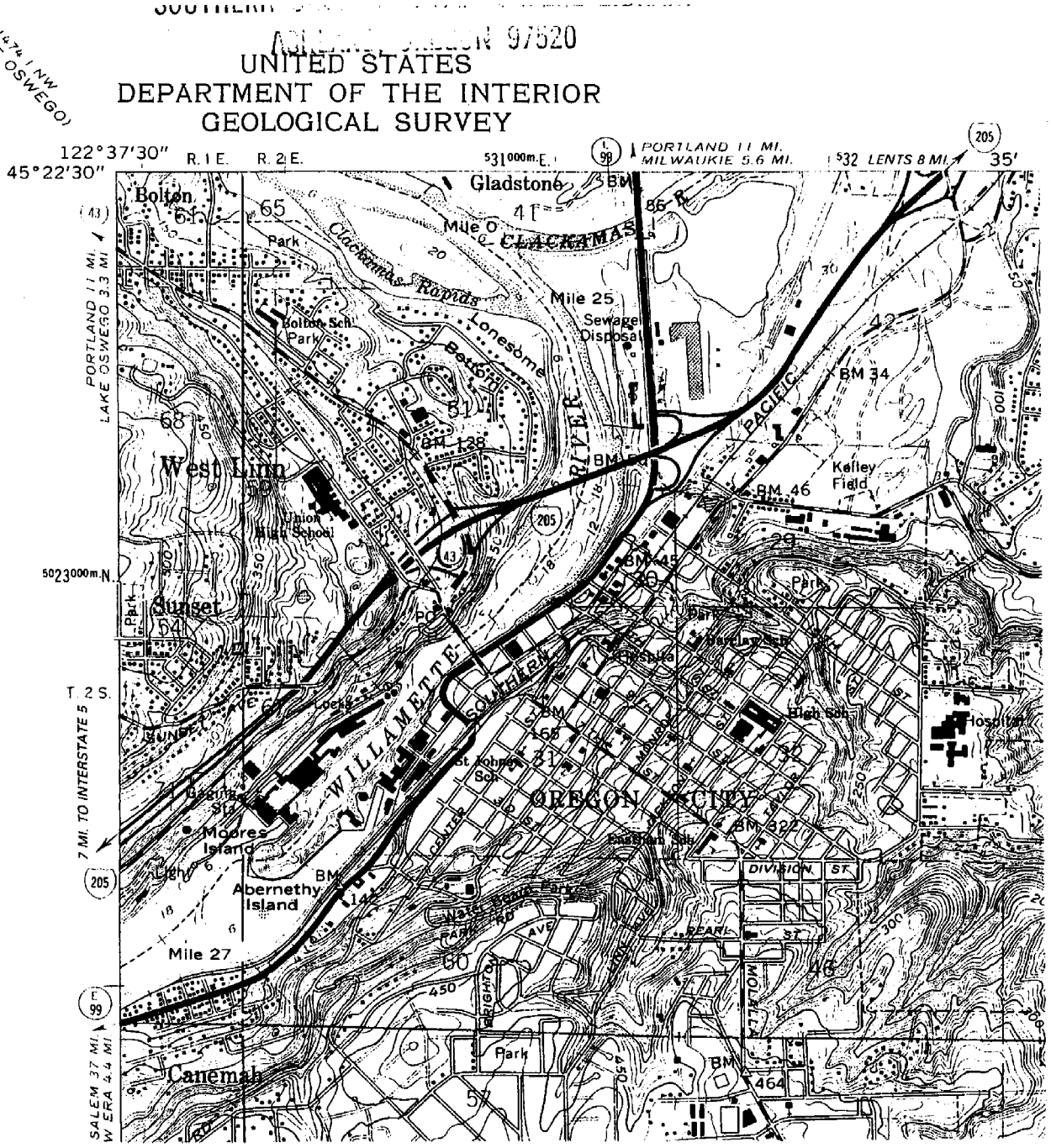
GENERAL VICINITY MAP



OREGON CITY AND VICINITY
Clackamas County, Oregon
Source: *Oregon State Highway Division, Sept 1987*

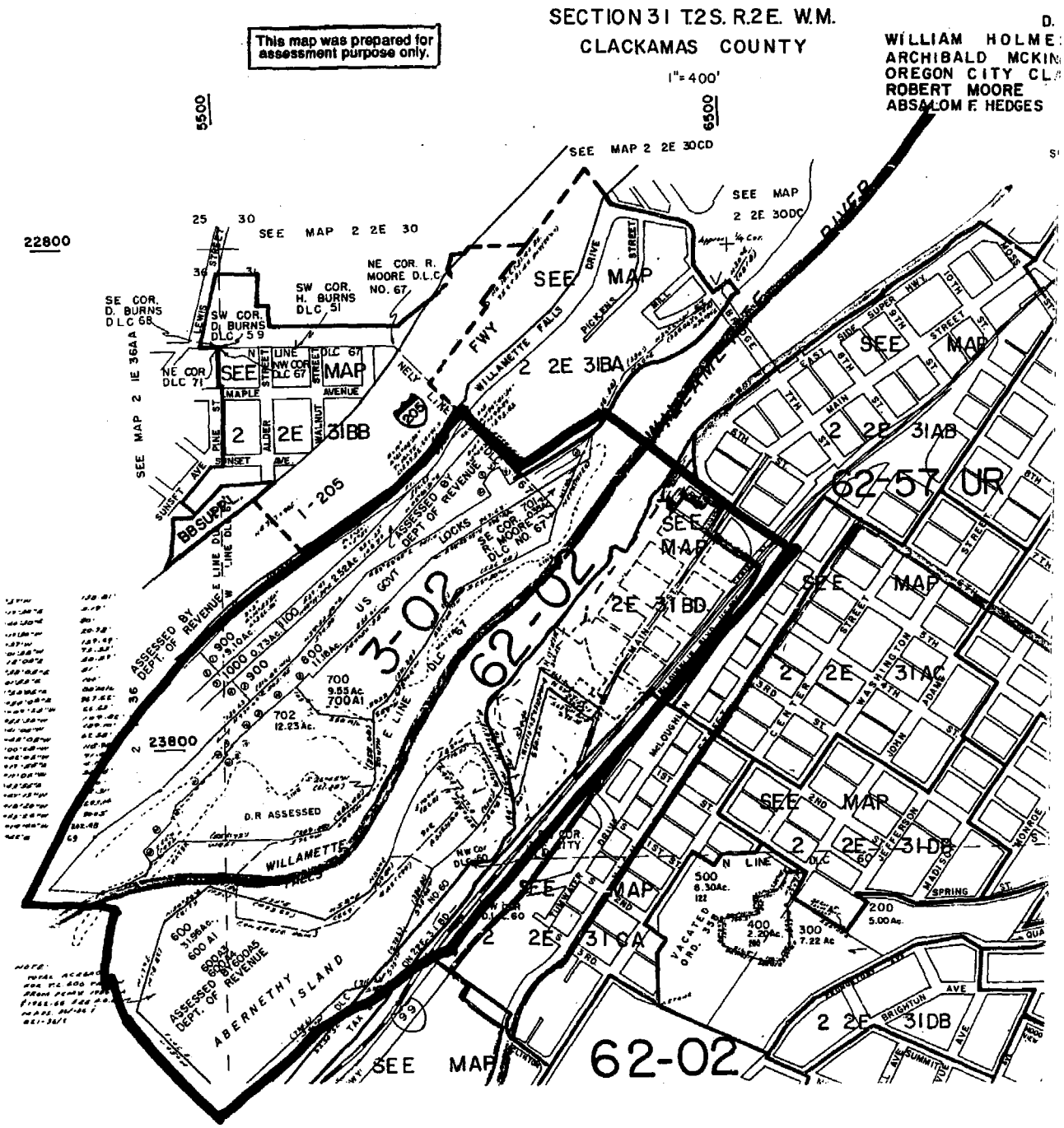
TOPOGRAPHIC MAP, PORTION



OREGON CITY, OREG.

Source: *United States Geological Service, 7.5 min quadrangle, 1961 (Photo-Revised, 1985)*

TAX LOT IDENTIFICATION



General Boundary of the
WILLAMETTE FALLS INDUSTRIAL AREA, CLACKAMAS COUNTY, OREGON
Source: *Clackamas County Assessors Plat 2-2E-31*