



United States Department of the Interior  
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

Historic name Ford Motor Company Assembly Plant  
Other names/site number Federal Center South

2. Location

Street & Number 4735 East Marginal Way Not for Publication N/A  
City or Town Seattle Vicinity N/A  
State Washington Code WA County King Code 033  
Zip Code 98134

3. State/Federal Agency Certification

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

[Signature] 8/21/13  
Signature of certifying official Date  
Federal Preservation Officer, U.S. General Services Administration  
State or Federal Agency or Tribal government

In my opinion, the property  meets  does not meet the National Register criteria. (See continuation sheet for additional comments.)  
[Signature] 8-8-13  
Signature of commenting official/Title Date  
WASHINGTON STATE HISTORIC PRESERVATION OFFICE  
State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:  
 entered in the National Register [Signature] 10.9.13  
See continuation sheet. Signature of Keeper Date of Action  
 determined eligible for the National Register  
 See continuation sheet.  
 determined not eligible for the National Register  
 removed from the National Register  
 other (explain):



# United States Department of the Interior

NATIONAL PARK SERVICE  
1849 C Street, N.W.  
Washington, DC 20240

October 17, 2013

Notice to file:

This property has been automatically entered in the National Register of Historic Places on: October 9, 2013

This is due to the fact that there was a lapse in appropriations by Congress and our offices were closed from October 1-16, 2013. "Nominations will be included in the National Register within 45 days of receipt by the Keeper or designee unless the Keeper disapproves a nomination" (30CFR60.(r). If the 45<sup>th</sup> day falls on a weekend or Federal holiday, the property will be automatically listed the next business day.

The documentation is technically sufficient, professionally correct and meets the National Register criteria for evaluation. Thus, this property is automatically listed in the National Register of Historic Places.

**5. Classification**

Ownership of Property (Check as many boxes as apply)	Category of Property (Check only one box)	Number of Resources within Property	
		Contributing	Noncontributing
<input type="checkbox"/> private	<input checked="" type="checkbox"/> building(s)	<u>2</u>	<u>1</u> building(s)
<input type="checkbox"/> public-local	<input type="checkbox"/> district	<u>    </u>	<u>    </u> sites
<input type="checkbox"/> public-state	<input type="checkbox"/> site	<u>2</u>	<u>    </u> structures
<input checked="" type="checkbox"/> public-federal	<input type="checkbox"/> structure	<u>    </u>	<u>    </u> objects
	<input type="checkbox"/> object	<u>4</u>	<u>1</u> total

Number of contributing resources previously listed in the National Register 0

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

**6. Function or Use**

Historic Functions (Enter categories from instructions)

Cat: <u>INDUSTRY</u>	Sub: <u>Manufacturing Facility</u>
<u>TRANSPORTATION</u>	<u>Rail Related</u>
<u>TRANSPORTATION</u>	<u>Water Related</u>
<u>    </u>	<u>    </u>

Current Functions (Enter categories from instructions)

Cat: <u>GOVERNMENT</u>	Sub: <u>Government Office</u>
<u>    </u>	<u>    </u>
<u>    </u>	<u>    </u>
<u>    </u>	<u>    </u>

**7. Description**

Architectural Classification (Enter categories from instructions)

MODERN MOVEMENT: Moderne

Materials (Enter categories from instructions)

foundation	<u>CONCRETE</u>
roof	<u>OTHER: Composition</u>
walls	<u>CONCRETE</u>
walls	<u>BRICK</u>
other	<u>METAL</u>
	<u>    </u>
	<u>    </u>

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

Please see Section 7 Continuation Sheets.

**8. Statement of Significance**

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

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

Criteria Considerations (Mark "X" in all the boxes that apply.)

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

Areas of Significance (Enter categories from instructions)

Architecture  
Industry

Significant Person (Complete if Criterion B is marked above)

N/A

Period of Significance

Criterion A, 1932  
Criterion C, 1932

Cultural Affiliation

N/A

Significant Dates

1932

Architect/Builder

Albert Kahn

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

Please see Section 8 Continuation Sheets.

**9. Major Bibliographical References**

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

Please see Section 9 Continuation Sheets.

Previous documentation on file (NPS)

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

Primary Location of Additional Data

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

**10. Geographical Data**

Acreage of Property 33 acres

UTM References (Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing		Zone	Easting	Northing
1	10T	549657.27	5267541.54	3	10T	549663.72	5267583.93
2	10T	549674.10	5267452.75	4	10T	549699.72	5267583.93

See continuation sheet.

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

The complex is sited on Parcel number 357320-0975, a wedge-shaped thirty-three acre property set between Diagonal Avenue on the north, East Marginal Way on the east and the Duwamish River on the west and south.

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

The boundary was selected because it is consistent with the historical limits of the parcel purchased by the Ford Motor Company for its new assembly plant in Seattle.

**11. Form Prepared By**

Name/Title Barbara Lamprecht and Christopher Hetzel, Architectural Historians

Organization ICF Jones & Stokes Associates Date 1/22/2008, revised 8/27/2009, revised 5/1/2013

Street & Number 811 W. 7<sup>th</sup> Street, Suite 800 Telephone 213.627.5376

City or Town Los Angeles State CA Zip Code 90017

**Additional Documentation**

Submit the following items with the completed form:

- Continuation Sheets
- Maps
  - A USGS map (7.5 or 15 minute series) indicating the property's location.
- Photographs
  - Representative photographs of the property.
- Additional items (Check with the SHPO or FPO for any additional items)

**Property Owner**

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

Name \_\_\_\_\_

Organization General Services Administration-- Northwest/Arctic Region Telephone (253) 931-7912

Street & Number 400 15<sup>th</sup> Street SW

City or Town Auburn State WA Zip Code 98001

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.). A federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number.

Estimated Burden Statement: Public reporting burden for this form is estimated to range from approximately 18 hours to 36 hours depending on several factors including, but not limited to, how much documentation may already exist on the type of property being nominated and whether the property is being nominated as part of a Multiple Property Documentation Form. In most cases, it is estimated to average 36 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form to meet minimum National Register documentation requirements. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, 1849 C St., NW, Washington, DC 20240.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 7 Page 1

---

### ***Narrative Description***

#### **Summary**

The property encompasses the original thirty-three acre site of the Ford Motor Company Assembly Plant, a regional Ford plant designed by Albert Kahn, Inc. and constructed in 1932. The Kahn architectural firm was known for giving form to the American innovation of efficient assembly line production and thus gained major status in the history of industrial architecture. The property includes two historic buildings associated with the 1932 Ford Motor Company: the Assembly Building (Building 1201) and the Oil House (Building 1206), and one non-historic building constructed in 2012: the Oxbow Building (12021). The Assembly Building and Oil House, both dating to 1932, are of concrete and steel construction with brick exterior cladding. Their fenestration is characterized by banks of multi-light, single-pane, industrial-type steel windows. Minimal architectural detailing is expressed through the use of brick pilasters, corbels and dentils. The sprawling, 421,500 square foot Assembly Building was designed to house a variety of uses, including a showroom, offices, warehouse, and assembly plant; the different uses are evident on the exterior through the varied arrangements of fenestration, façade heights and roof lines. A monumental smokestack and saw tooth monitors mark the building as an industrial facility. In contrast, the compact, 6,545 square foot Oil House is characterized by symmetrical facades and a gable roof. Although windows have been replaced in some areas and offices inserted in spaces originally designed for factory or showroom uses, the two 1932 buildings, along with the site that includes the original 600 foot long dock on the Duwamish Waterway and a rail spur, retain sufficient integrity to convey their significance as a state-of-the-art automobile assembly plant of the early 1930s.

#### **The Site**

The Ford Motor Company Assembly Plant in Seattle is sited on a wedge-shaped thirty-three acre property set between East Marginal Way and the Duwamish River. Now known as the Federal Center South (FCS) complex, a federal facility that encompasses the original thirty-three acres as well as an additional five acres on the east side of East Marginal Way, it is located in the industrial area of South Seattle, and is served by rail, truck and barge transportation with access to Boeing Field and the port of Seattle.

The site is surrounded on the south and west by the Duwamish River and is anchored on the south by an expansive 600 foot long dock along the edge of Slip No. 1. The dock is constructed of reinforced concrete over timber pilings with a structural slab and features large painted steel bollards, cleats, and a heavy timber bull rail. It provides access to major shipping lines via the Duwamish River and Puget Sound. Rail spur lines run along the dock for the length of the building connecting to regional and national lines on East Marginal Way, a major north-south service road for industries in the area.

There are three extant buildings on the property. The assembly building of the original Ford Motor Company plant (Assembly Building, Building 1201) and a smaller, associated building that was originally used to supply the oil needed to run the plant's boilers (Oil House, Building 1206) were both constructed in 1932. These Kahn-designed buildings are contributing resources to the historic property. The third building, Building 12021, was completed in the fall of 2012 and houses offices for the U.S. Army Corps of Engineers. Known as the Oxbow Building, the three-story, 200,000 gross square foot, glass-clad building has a U-shaped footprint that is intended to reflect a nearby bend in the Duwamish River. This new building is a noncontributing resource. Two buildings formerly extant on the property: Building 1203, a one story, 8,000 square foot building for vehicle maintenance constructed circa 1942, and Building 1202, a one-story, 340,000 square foot masonry building built in 1941 as a warehouse, were determined to be noncontributing resources in 2003 in coordination between the U.S. General Services Administration (GSA) and the Washington State Historic Preservation Office. Building 1203 was demolished prior to the start of construction for

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 7 Page 2

Building 12021. Materials from Building 1202, including large timbers, were reused in the construction of Building 12021. The phased demolition of this large building was completed in the fall of 2012.

The Assembly Building and the Oil House are situated perpendicular to one another on the south/southeast portion of the property. Building 12021 is situated to the northwest. The Assembly Building's southern façade and the Oil House's western façade front on the dock and Slip No. 1. The Assembly Building dominated the factory site as the office, showroom, and production facility of the Ford Motor Company plant and is still the property's most prominent building. The Oil House is located to the southeast of the Assembly Building and is linked to the larger building by an underground poured concrete service tunnel through which pipelines lead to the Assembly Building's boiler room.

With its proximity and connection to several modes of transportation – water, rail, and internal circulation, which enhanced the industrial process of moving materials, parts, and finished products – the plant's location demonstrates the longstanding Ford practice of synergistically utilizing the convergence of natural and human resources with the singular objective of profit. Each component of the natural resources still exists at this site. The dock, the slip, the waterway, the railroads, the roads, and the buildings all retain their qualities of integrity and spatial relationships to one another. Thus, as a physical embodiment of the opportunity to realize American capitalism on a large scale in the early twentieth century, the existing features of the property constitute an industrial cultural landscape. The dock and rail spur are contributing structures of the historic property.

At some point after construction, the land on the north and east sides of the Assembly Building was transformed to contain a 3.5 acre lawn and a small paved parking lot. The lawn area includes gardens with mature trees, a small outdoor patio at the Assembly Building's north elevation, and a children's playground at the middle of the east elevation. These features, as well as the parking lot located to the east of the historic property across East Marginal Way and containing spaces for 700 cars, do not contribute to the historic property.

### The Buildings - Overview

Both the Assembly Building (Building 1201) and the Oil House (Building 1206) share the same architectural palette of structural components, materials and detail vocabulary. These buildings are in very good condition and qualify for listing in the National Register of Historic Places under Criterion C for their architectural significance and as the work of a master architect.

Each building contains characteristics that are identifiable with architect Albert Kahn's body of work, particularly his designs for the Ford Motor Company. They include:

- Exterior masonry veneers with exposed steel structure on the interior;
- Exterior veneer or infill of brick or masonry ornamented with abstracted detailing loosely based on Western Classicist precedents;<sup>1</sup>
- A fairly regular (but not rigid) disposition of bays in plan contrasted with an apparently random distribution in section of irregularly located saw tooth roof profiles containing skylights. These skylights are precisely placed and angled according to lighting needs for specific tasks as well as for ambient daylight;
- Operable clerestory windows for "the most scientific system" of ventilation;

<sup>1</sup> Kahn's exteriors bowed, to the extent deemed appropriate to the "extraneous" quality of a finished façade, to what appealed to his industrialist employers, and to the greater public. This is somewhat in the tradition of London's Victorian train stations with their ornate street facades and industrial interiors; or in the work of early German Modernist, fellow industrial architect and friend, Peter Behrens, designer of the famous A.E.G. Turbine Factory, 1910.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 7 Page 3

- Generous column spacing afforded by astute engineering;
- The judiciously "bundled" placement of utilities;
- The unobtrusive locations of elevators, restrooms, locker rooms and stairs;
- Departmental layouts and structural components sufficiently open and elastic to permit rearrangement and expansion (here potentially to the north and/or somewhat to the west);
- Intelligent connections linking disparate spaces and functions (such as toilets and "personnel feeding"<sup>2</sup> areas) to maintain high worker productivity.

The Assembly Building and the Oil House both embody all these distinctive characteristics of Kahn's architecture. Such features date back as early as 1906, as seen in the firm's first major industrial commission, the George N. Pierce Plant of Buffalo, New York, and were refined in subsequent decades.

Both buildings are composed of poured reinforced concrete foundations, some occasional reinforced concrete bearing walls, and exposed structural steel (columns, beams and bracing) on the interior. The buildings' masonry exteriors are typically a wheat-colored glazed brick laid in a common bond pattern, employed as infill and veneer for exterior cladding and as engaged pilasters. In some areas, the same brick is used for polychromatic patterned ornamental inlays. Other primary character-defining and extant features of the Assembly Building include poured concrete cast stone used for window sills and grey granite for base and water table trim. Some window heads at major entries have striking surrounds.

Overall, on vertical elevations, the buildings' fenestration is original and extant except for altered glazing on two elevations of the north portion of the Assembly Building and the south elevation of the Oil House. The original fenestration is characterized by multi-light, single-pane, industrial-type steel windows, seen, for example, on the south end of the east façade at the boiler room entrance. Also typically, a field of inoperable windows surrounds a smaller section of glazing that is operable with a centrally located pivot. The non-original windows occupy the original openings and the brick surrounds remain intact. They are typically six lights (three-over-three, the top row of three smaller than the larger row below and coated with reflective bronze film) except for the non-original windows at the Oil House, which have six smaller fixed windows above six larger fixed windows, horizontal in character and also coated with bronze reflective film. Examples of these typical non-original windows on the Assembly Building can be seen in the middle section of the east façade.

Skylights and roof monitor fenestration is original and extant. These are single-or-double-light windows with interior wire reinforcing. However, because of renovations to the second floor of the north portion of the Assembly Building, which include an acoustical ceiling, the roof fenestration cannot be seen in this section of the building. Other specialized windows will be described where they occur on each elevation.

### **Assembly Building (Building 1201)**

The 'L'-shaped Assembly Building is strongly horizontal in character. It is comprised of two major components with its public façades facing east and north. The first component is a roughly 345,000-square-foot two story structure devoted to warehouse, boiler room with smoke stack, assembly facilities, offices, and showrooms. This large rectangle, approximately 760 feet by 485 feet and oriented north-south, maintains the classic proportions of the "Golden Section" rectangle with a ratio of 1:1.6. Here the module of the east-west bays is twenty-five feet on center. There are thirty clearly defined bays on the east façade, not including the crane way/boiler room, which is also

<sup>2</sup> Albert Kahn, "Design of Factories: Personnel Feeding," 1945, *Buildings for Industry*, *Architectural Record*, p. 29. Reprinted 1957.



United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 7 Page 4

fronting on the east but is articulated differently. In contrast, the north façade is a mix of bays, two of which are identical to the bays on the east, vehicular, and secondary pedestrian entrances.

The building contains a low-bay warehouse on the west (facing the waterway) and a two-story high-bay area on the east side. Product assembly originally occurred on the upper story with increasingly finished goods wending down to the ground floor and then to the dock for shipping. Corporate offices and locker rooms were located on the west side of the upper floor. The "drivers' room" was located on the north side directly above a garage on the ground floor. The northeast corner, which was the closest access for the general public and for retail use, housed an original double-height showroom.

A second rectangular component in the Assembly Building housed the crane way and is strikingly original in character. In contrast to the multi-purpose, two-story assembly/warehouse/office area to the north, this high-bay, single and double-height volume to the south was dedicated solely to house the crane apparatus and gantries. This is where parts, materials and cars were transported on conveyor belts to and from the docks or the assembly areas. Although part of the large Assembly Building, it is a discrete piece within the larger building.

This area is 100 feet wide by 500 feet long, and 38 feet tall and oriented with its length parallel to Slip No. 1 of the waterway. Here the twenty-foot-wide modules of the twenty-five bays are oriented north-south while the overall crane way volume is aligned east-west. The crane way juts out to the west beyond the larger rectangular volume by 180 feet, or nine bays. The crane way's intact exposed steel members, important character-defining features, are lighter and more delicate in appearance than the similar steel framing in the northern end of the Assembly Building. Structurally, the second rectangle consists of a bolted and welded steel frame with its perimeter walls infilled by yellow brick masonry set within reinforced concrete and brick-clad pilasters. Due to its placement on the site near the water, the south-end warehouse area's structure is a concrete slab with a timber piling foundation.

The overall composition of the Assembly Building is dictated by the rhythm and regularity of the double-height brick pilasters and is further strengthened by the rhythm of the east-west bays in the building's larger component and by the north-south bays in the crane way to the south. In the two-story area, the pilasters protrude beyond the intermediate horizontal band of brick, dividing the ground and upper floors, and thereby slightly suppressing the quality of overt horizontality here. Defining the window frame on each floor, the area between each pilaster is devoted to glazing that appears to be designed to take full advantage of the width between pilasters.

The exterior and the structure of the Assembly Building are the most expressive aspects in terms of historically significant features and appear to be in outstanding condition. The corner volumes of the larger rectangular component of the building on the northeast, northwest, and southwest are articulated with additional ornament and detail. This distinguishes them from the long expanses of façade on the east and north sides. These subtly distinguished corner volumes aesthetically anchor the building.

To the north of the crane way, the eastern half of the interior of the assembly/warehouse/office area was divided into two floors, where car components were built, painted, finished and then transported to other areas of the building. The upper floor was an open plan in the center, with supporting services such as offices, lockers, and toilets. The 1970s renovation enclosed the northern end of this second floor open plan and converted it into office space with enclosed ceilings. South of this, the original and important character-defining open space with exposed steel framing and visible skylights and roof monitors are original and extant.

On the ground floor, a small enclosed "box" of interior space with a low ceiling that does not touch the steel framing has been added and is a reversible condition. To the west of this two story section are two relatively tall one story

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 7 Page 5

areas once housing other assembly facilities. For internal use only, these areas have vehicular entrances whose appearance, detailing, and fenestration appear to be intact. The vehicular entrances added to the flexibility of the open assembly/warehouses spaces. These lower bay areas, comprising the western half of the building, exhibit the steel trusses, column and beam structure, complex saw tooth roof monitors, sloped skylights, windows and clerestories of the original design. In some areas, the overhead electrical drop cords and suspended HVAC units recall the original storage and shipping functions.

The original boiler room is located on the east side of the structure, south of the office section. This is a twenty-nine foot tall open area which retains much of its original character, including original industrial steel sash, steel frame windows, and interior brick and tile finishes. Some of the mechanical equipment is also original. A prominent eight foot diameter steel cylinder chimney rises eighty feet above the roof of the boiler room.

### North (Primary) Façade

The north elevation, facing the landscaped park and parking lot at the northern portion of the property, consists of three different sections and profiles. There is a two story area that drops down on the west to form a one story structure with a prominent saw tooth roof profile. This one story structure terminates at the west end in a taller one story structure with roof monitors. The building's roofline, as seen in section, reflects its original internal factory uses, while the articulated corner areas in the two story portion define the location of the original showroom (east) and the offices (west). In elevation, the façade's horizontal roofline between the two articulated corner areas is taller than those flanking it. The parapet roofline of the east and mid-area warehouse is horizontal, while the westernmost area's roofline assumes a gable shape whose ridge runs north-south.

Like the other two corner areas previously mentioned, the double-height corner space that contained the original showroom steps out slightly beyond the building envelope. Here the pilasters, brick with two bands of concrete near the top, engage a plain concrete frieze whose only ornament is dentil relief at the base of the frieze and a thin horizontal cornice line near its top. The pilasters in this section "hook" onto that cornice line and extend just beyond the top of the frieze. Above, adding emphasis to its role as a public showroom, the parapet has an inset relief of wheat-colored squares, possibly made of ceramic tile, laid on the diagonal and surrounded by a border of end-cap brick. This pattern is also used in the northwest corner parapet. In the intermediate parapets running south and west and between the more distinctive corner areas, the pilasters terminate at the base of the frieze and do not engage the cornice.

On the north and east facades, just below the roof line and above and below all window openings, there are three dentil treatments which vary in scale, materials and proportions. The smallest, comprised of brick headers separated by roughly one-inch gaps, is below the windows. The largest dentil, of cast concrete bricks laid on edge, separated by slightly wider gaps, is located above the windows. These are aligned with the blank concrete frieze that is recessed in line with the tops of the pilasters, which abut a minor frieze of vertically oriented bricks turned on edge. The dentil treatment at the roof line, just below the uppermost cast concrete cornice, is mid-size, and appears to be of flat ceramic tile separated by one-inch gaps.

At the east end of the north façade, the ground story window treatment of the original showroom is extant and appears to be in excellent condition. Here the two bays are treated differently than standard bays elsewhere on the primary facades, befitting their public/retail role. Although the overall opening dimensions are the same as the other bays, the upper portion of these windows are divided into four lights, each a separate hopper window. Each of these four windows is separated and bounded top and bottom with ornate oil-rubbed bronze trim, comprised of anthemion molding above and a heavy, multi-foliated cornice below.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 7 Page 6

According to the original drawings, the large window below these four openings was a single light, except for the original public entrance. This entrance, located in the southernmost bay on the east façade, included glass French doors with bronze trim. As originally designed, the lower windows are still one single pane framed with a bronze molding. However, they are now coated with bronze reflective film. The window base is aligned with the concrete water table course seen at the two primary (north and east) facades where the building is two-story. All the showroom windows are set deeper into the wall than the other ground floor windows on the north and east facades. Apart from the showroom, the other north façade windows have higher window sills than the retail-oriented showroom windows, where viewing the entire car was important.

Moving west along the north facade, the two story area ends at the articulated corner described above and the taller one story areas begin. This end of the façade combines six bays of original vehicular openings, two secondary entrances for drivers and service personnel, doors, and original steel-framed multi-light windows between the bays. A continuous steel beam runs along in front of the first three bays in this westerly portion. At the western end, the façade terminates in a taller, double-bay, one-story area with a gable-shaped parapet featuring a brick roundel in the center. The roundel, identical to that seen in the Oil House, is also defined by a series of four quadrants of opposing, diagonally placed brick and set within a field of diagonal "squares-within-a-square" tile pattern.

The north façade of the crane way is characterized by a very large field of multi-pane industrial windows, original and extant, and a vehicle entrance at its eastern end.

### East (also a Primary elevation) Façade

The east façade, another "public" façade, is treated much like the north façade in its rhythm of brick pilasters clearly defining internal bays. It is over thirty bays wide, divided into three sections. The middle section of twenty-six bays is flanked by the four-bay showroom on the north, creating a strong horizontal design and is flanked on the south end by the vertically oriented boiler room component capped by a monumental smoke stack.

The northern end of this façade contains the four-bay showroom whose fenestration is described above. The location of the original entrance (the southernmost bay in the showroom) has not changed; however, a 1970's *porte-cochere* is characterized by four brick-clad pillars capped in bronze trim attached to the *porte-cochere* on its north and south sides. A glass-enclosed entrance, protruding from the original façade, aligns with the first pair of pillars. The *porte-cochere* mimics the proportion and dark-colored metal window trim of the extant four-light upper windows of the showroom's ground floor windows, although it is simple with no articulation.

The southern end of the east façade locates the eastern entrance to the crane way and the "heart" of the plant--the boiler room. This is crowned by an eight foot wide painted white smokestack extending eighty feet above the roofline. The twenty-nine foot tall open area of the boiler room retains much of its original character, including original steel industrial sash and frame windows, and interior brick and tile finishes. Some of the mechanical equipment is also original.

The smokestack acts as a spire anchored by the brick façade, which is divided into a primary, taller center area flanked by two smaller areas. The orientation of this portion of the façade is definitely vertical, with five bands of relatively narrow, vertically oriented, double-height glazing that contrasts with the horizontal design of the windows elsewhere. This verticality is interrupted only once where the double door entrance is asymmetrically located in the southernmost bay in the group of five and is set apart by a wide band of brick above it, laid vertically rather than horizontally as most brickwork is used elsewhere.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 7 Page 7

As with the northeast and northwest corners, here at the boiler room façade, the pilasters step out slightly from the building envelope and again engage the frieze. The parapet is treated with the diagonal inset tile pattern described above. Immediately south of this grand entrance to the boiler room, a very large opening contains a tall painted steel roll-up vehicle door. Above the steel door, a crimped metal section of bronze and roughly the same width as the brick band to the north, separates this roll-up door from a solid length of clerestory windows defining the east end of the crane way. This window area is not framed with bronze along its top, as are the windows to the north, but with smooth cast concrete. However, the top of this window is aligned with the top of the windows to the north, a design element that unifies the northern and southern ends of the façade. In contrast to the newer, film-coated, larger-scaled windows that replaced multi-pane, industrial steel-frame windows seen elsewhere in the long mid-section of this façade, here the original windows are intact and in good condition.

### South Elevation: Crane way

The south-end, high-bay warehouse section containing the crane way, measures 100 feet wide by 500 feet long and 38 feet tall. The section's south elevation, fronting the dock, is characterized by twenty foot wide bays whose wide ground floor openings are devoted to easy and constant vehicular access to the dock. The bays are divided and demarcated by unornamented brick pilasters on the lower portion of this double-height exterior. The openings are characterized by a vehicle door, whose upper half is original, and extant steel frame windows, and its lower half a simple steel rectangle painted a dull pink. Vehicle openings are emphasized by steel wheel guards.

Above the bays, a band of brick separates these bays from a continuous band of clerestory windows that runs the main length of the elevation, with the exception of the anchoring corner areas. In addition, the long clerestory window is set flush to the brick. This is in contrast to the deeper inset of the windows on the two primary (east and north) façades. A similar clerestory in the same elevation can be seen in the west (short) end of the crane way. Below the south clerestory, a long expanse of brick divides the lower and upper portions of the façade.

Of particular note in the south elevation, are the ends of a sequence of steel beams which protrude beyond the brick building envelope at the top of each pilaster. These beams reveal part of the structure for the crane way located behind the façade. Some of the brickwork surrounding some of the beams appears to be non-original repairs done in a slightly darker shade of yellow.

As mentioned, the high-bay (crane way) and low-bay warehouses make up the south and west parts of the building. Above both warehouses are located original, extant saw tooth roof monitors, sloped skylights, and clerestories. The roofs of these portions of the building retain their original shapes and materials. These warehouses retain much of the Ford Plant's original qualities and integrity; and have experienced very few modifications.

### West Elevation

In contrast to the horizontal rooflines with parapets of the more publicly oriented north and east façades, the angled roofline locating roof monitors and skylights at the west elevation is undisguised. No horizontal parapet disguises the jagged roof profile. Above the original and extant clerestory of multi-pane industrial windows, which span the entire width of the west façade, a continuous steel channel, which is a support for window-washing equipment, projects in front of the roof cornice. In contrast to the east elevation, the clerestory window on the west elevation contains small-pane glazing that continues as a field down to the ground, interrupted at the south and north ends of the crane way by large roll-up steel doors. This field of steelwork and doors is contained by double-height brick piers, which are

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 7 Page 8

part of the corner volumes that articulate each major corner of the Assembly Building. These piers are slightly taller than the roofline.

The west façade of the other, northern portion of the Assembly Building features a long band of uninterrupted windows, original and extant, bordered by brick above and below. This terminates in the articulated, westernmost corner gable-roofed volume anchoring the north façade.

### Interior / Crane way

The interior of the crane way, original and extant, is an important character-defining element of the property in manifesting its original use. As with the low-bay warehouse portion to the north, its interior space is intact, characterized by its large open plan, original, exposed steel framing, concrete floor, and sloped skylights set in the roof. Much of the original crane way mechanisms and apparatus are still in place, strengthening the historical connection to the original use of the Ford plant.

### Assembly Building Alterations

After acquiring the site in the early 1970's, the U.S. General Services Administration (GSA) made a number of changes to the exterior of the Assembly Building. The most conspicuous of these was the replacement of the original multi-paned steel-framed industrial sash windows on the east façade and portions of the other facades. The non-original windows, set into the original openings, are aluminum-framed with bronze-colored reflective film. These windows are characterized by tripartite vertical frames, some with secondary horizontal divisions. Solid tan-colored spandrel panels are used in lieu of glazing in the upper sections of these window units. Removal of the thin profile industrial sash and the installation of the larger pattern of solid and glazed elements has changed the scale of the windows and the building facades.

On the east façade, the cast-iron marquee and bronze-framed double doors at the plant's main entry have been removed and replaced by anodized aluminum double doors. A projecting, flat-roofed *porte-cochere* supported by large yellow brick-clad piers was also added. Metal signage in sans serif letters, "Federal Center South" is affixed to this façade, one word per bay, to the north of the new *porte-cochere*. Also on the east façade, two secondary entries to the south of the *porte-cochere* have been accentuated by the addition of small fixed awnings. Toward the south end of the east façade, a carport structure has been attached to the building. Additional entrances have been added to the façade since its use as a federal office building.

The 1970's renovation incorporated more extensive changes to the building's interior, including inserting a story with contemporary finishes into the original double-height automobile showroom. Most of both floors in the north portion of the Assembly Building are used as office space with typical partitions and acoustical ceilings with fluorescent lighting.

The original auto showroom had relatively rich finishes, including a tile floor and marble base. The plaster ceiling was composed in a decorative grid. The north and east ends of the room served the retailing functions of the auto showroom and had large non-operable windows with transoms. The south interior wall contained three arched openings with a doorway to the industrial showroom and a staircase. The staircase consisted of marble treads, risers, stringers and landing platforms. An ornate bronze rail was provided at the first landing, the first rise of stairs, and the top landing near the general office spaces on the second floor.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 7 Page 9

Presently, the original showroom space has been replaced with a large office area. A new lobby space leads to a main east-west corridor, tenant spaces on the first floor, and a stair to the second floor. All finishes in the first floor office and lobby areas are non-original with little reference to the historic showroom's finishes. The arched passageway, the first set of marble stair risers, and the first landing have been removed, as has the marble floor base. Typical finishes now include terrazzo and carpeted floors, painted gypsum board walls and acoustical tile ceilings. However, the creamy white marble treads, risers, and landings and the Verde marble base on the main stairs remain. The original ornate bronze railing on the second level and the bronze handrails are also intact. Although most of the finishes in these spaces are not original, some of the historic interior volume and the primary function of entry and circulation remain. The ground floor retains much of its original exposed concrete floor.

The original office portion of the building—the entire second floor—was redeveloped by GSA. Lowered interior ceilings and flat fluorescent lighting were added and some skylights were removed. On the upper floor, the original factory toilet rooms retain their terrazzo floor, marble wainscoting and some original fixtures. A recreation center for Federal Center South tenants was built in 1990 at the northwest corner of the low-bay, along with a childcare center in the middle portion of the east side of the building. Most of the original open car assembly spaces on both floors were partitioned and new finishes provided. In some interior spaces, however, critical features of the original building and assembly processes are still evident, particularly the striking internal steel columns, bracing, and still extant crane mechanisms in the crane way. Also, most of this central area still functions as a warehouse with offices.

### **Oil House (Building 1206)**

In contrast to the Assembly Building with its sprawling size and varying rooflines, the Oil House is a small rectangular gabled one story structure located southeast of the larger building. It contains 6,545 square feet including a unoccupied basement. Serving as an oil storage building for the Ford Motor Plant; fuel was transferred from a 240 foot long underground poured-concrete utility tunnel that connects the Oil House with the boiler room in the Assembly Building. The building is 62 feet wide and 113 feet long, oriented with its sides parallel to the East Marginal Way and sits at the end of the 660 foot dock on Slip No. 1 of the Duwamish Waterway.

The structure is a steel truss with pre-cast concrete tiles spanning between the structural steel purlins. The steel trusses are constructed from angle and plate stock with riveted connections. The Oil House is supported by a 24,465 square foot dock structure constructed of eighteen inch, square, reinforced concrete pilings and beams, and a nine inch thick reinforced concrete slab. On the south side there is a raised eighteen inch concrete plinth/loading dock.

The Oil House exterior detailing shares that of the Assembly Building, with wheat-colored glazed brick cladding and industrial, multiple-paned steel sash windows. Its north and south façades are identical in that they are divided by brick pilasters into three sections below a solid brick gable. On the south, the original multi-pane glass has been replaced with modern metal sash and glass with fewer lights (similar to those on the mid-section of the Assembly Building's east façade) coated with reflective film. This façade also includes a small, canopied entrance and a reinforced concrete loading dock, which, according to the Washington State Archives, dates to at least 1937.

The east and west facades feature multi-pane metal sash window bays, entrances, and vehicle openings between brick and stone pilasters. Windows on the north and east facades appear to be original; however, on the north facade, there is a large exterior sign inserted in the easternmost bay. An original central roundel on both north and south gable ends is composed of yellow brick and divided into four quadrants of diagonally oriented brick, echoing a similar roundel on the north façade of the Assembly Building. In this building, the pilasters simply terminate at the roof line.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 7 Page 10

---

### Oil House Alterations

Although the exterior of the Oil House retains most of its original appearance, the interior was renovated when the building was converted to office space in the mid-1970s. The original interior was divided into three main spaces which have been further subdivided. The elevation of the floor at the southern half was adjusted for level access and under floor wiring. New partitions and interior finishes were installed. Interior finishes presently consist of gypsum wallboard, exposed masonry and plaster. Ceiling heights have been lowered from the original twelve foot height with the introduction of acoustical tile ceilings. Floor finishes include carpet, vinyl tile, and exposed concrete.

### **Noncontributing Buildings**

Three noncontributing buildings were added to the original Ford complex in two separate construction campaigns after the period of significance and are unrelated to the original composition. Only one noncontributing building is extant at this time. In 1941, during World War II, the U.S. Army Corps of Engineers added a 347,000 square foot industrial shed (Building 1202) located to the west and north of the Assembly Building. This vernacular industrial one story masonry structure was recently demolished. Constructed circa 1942 and located farther to the northwest was Building 1203, a much smaller one-story, pre-engineered industrial structure with a concrete slab foundation that was demolished several years ago. Building 12021, the new U.S. Army Corps of Engineers office building, constructed in the northwest section of the property and completed in the fall of 2012, is the only extant noncontributing building.

### **Conclusion**

Despite exterior and interior alterations, the Assembly Building and Oil House retain their integrity of location, design, setting, materials, workmanship, feeling, and association. They convey their historical importance and were constructed during the period of significance, 1932.

The changes to glazing of the bays are a reversible condition and the new *porte-cochere* is an addition that has not compromised the historic fabric of the building and is also reversible. While the inside has been renovated in certain locations, the critical features, particularly the interior steel framing, that display and recall the plant's industrial heritage, are still intact and in excellent condition. Overall, the northern, larger space continues to house multiple purposes as did the original plant. The Ford Motor Company Assembly Plant in Seattle is an excellent example of both Kahn's mature work as an accomplished and lauded industrial architect and as a genius in factory development, paralleling Ford's own maturity as the country's leading industrialist of his day. The property continues to convey the importance of multiple transportation modes to the siting and operation of the assembly plant with the Duwamish River on the west boundary and East Marginal Way on the east boundary as well as the rail spur and dock remaining on the property. The recent demolition of Building 1202, a noncontributing resource, re-exposed the long obscured west side of the historic Assembly Building. While a newly constructed noncontributing building (Building 12021) is located well north and west of the historic buildings and is modest in scale when compared to the vast expanse of the Assembly Building.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 11

### Statement of Significance

#### Summary

The Ford Motor Company Assembly Plant in Seattle is eligible for listing in the National Register of Historic Places under Criteria A and C at the local level of significance. The facility is significant under Criterion A for its association with the development of the Ford Motor Company and the creation of a state-of-the-art regional manufacturing and distribution center for seminal models of Ford automobiles in the Pacific Northwest. Under Criterion C, the property is significant as an excellent example of the work of industrial architect Albert Kahn (1869-1942), whose designs revolutionized the form of the American factory in the early twentieth century, many of which are represented in the form and function of this particular Ford Motor Company Assembly Plant. The factory exemplifies Kahn's approach to Ford's concept of "enlightened capitalism" in which the architecture affects factory conditions, the quality of products, and the worker through such factors as ergonomics, cleanliness, and the role of light and ventilation. The property's period of significance is 1932, the year of completion of the factory and the first and only year of automobile production.

The Ford Motor Company Assembly Plant is an excellent example of a regional automotive manufacturing and distribution center from the early 1930s, and demonstrates Ford's genius in integrating a pivotal location, abundant natural resources, a ready human workforce, an increasingly mature national and international distribution system, and cutting edge industrial architecture to produce an efficient regional production center.<sup>3</sup> As an intact industrial cultural landscape, the Ford Motor Company Assembly Plant is an innovative and prescient approach to the development of a dynamic and highly influential American model of capitalism by one of the world's most important and innovative industrialists, Henry Ford. The property has a relatively high degree of integrity and retains all the character-defining elements that originally defined it, including the Assembly Building (Building 1201) and the Oil House (Building 1206), the dock, the enhanced waterway leading to the Duwamish River, and nearby railroad lines, streets and roads.

#### Criterion A

The Ford Motor Company Assembly Plant in Seattle was born out of the economic boom of the 1920s, an era characterized by the explosive growth of the automobile industry in the United States. The plant's 1932 Kahn-designed buildings were built at a pivotal time when the industry was not only a symbol of employment, but also of patriotism and of the United States' emergence as a major economic power. The Ford Motor Company became one of the largest manufacturing operations in the world during this period, and the ascendancy of the automobile transformed the American landscape – economically, politically, and geographically.

#### The Ford Motor Company

Henry Ford founded the Ford Motor Company in 1903, and first began producing automobiles from a manufacturing facility in Detroit, Michigan. Although the automobile industry was in its infancy, Ford immediately envisioned a national market for his cars, and pioneered a national system of production and sales. Seattle would play a role in that vision, and in 1907, Ford registered for business in Washington State.

<sup>3</sup> Robert M. Fogelson, *The Fragmented Metropolis* (Berkeley: University of California Press, 1967), 128-9.



United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 12

The Ford Motor Company introduced the first Model T in 1908. It was strong, versatile, and affordable, and essentially an overnight success. The Model T was considered a car for the masses, and more than 15 million vehicles were built between 1908 and 1927. The 1914 Model T was also the first automobile to be built on moving assembly lines, which made production more efficient and put the cost of the vehicles in reach of most Americans.

In October 1909, the Ford Motor Company opened their first automobile sales and service branch in Seattle, just one year after the Model T was introduced. It was here, from a facility in the Capitol Hill neighborhood, that Ford began marketing and distributing the Model T directly to Seattle residents. Henry Ford himself came to Seattle in 1909 to promote his revolutionary cars and to cheer the winners of the first-ever transcontinental automobile race as they crossed the finish line at the University of Washington. Ford, along with mining heir Robert Guggenheim, had challenged auto makers worldwide to send their best cars and drivers on a 4,100 mile race across the continental United States, from New York to Seattle, where the Alaska Yukon Pacific Exposition was about to begin. The winning car was a Ford Model T – thanks in large part to the dealers and mechanics along the route. Headlines around the nation announced the Model T's victory, presenting Henry Ford with his first great publicity coup.<sup>4</sup> By the 1920s, many Puget Sound communities boasted a Ford dealership on their Main streets.

The popularity of Ford automobiles helped transform the shape and culture of American communities, including cities like Seattle. Automobiles such as the Model T competed with, and eventually displaced older forms of transportation, such as horses, wagons, streetcars and trolleys, with which they originally shared urban streets. By the 1920s, new commercial and residential developments were specifically designed to accommodate people's reliance on the automobile. The automobile enabled people to live farther away from where they worked and shopped, and necessitated the integration of such things as garages, parking lots, service stations, streets, street signs, and stoplights into everyday life.

Automobile ownership was so widespread in Washington State between 1908 and 1920 that the state's ever expanding number of drivers increasingly called on public officials for a safer and more extensive system of roads. In 1908, only 125 miles of improved roads existed in the entire state. The rest are said to have consisted of little more than rutted tracks – muddy and impassable in winter and dusty in summer. The state's rugged mountain passes and expansive lakes presented even more obstacles. The most successful advocacy group for highway improvements was the Good Roads Movement, which effectively lobbied the state legislature. In 1905, the Washington State Highway Department was organized in response to these demands and improvements soon followed. For example, the first ferry built specifically to accommodate automobiles was launched on Lake Washington in 1913 and an improved roadway was constructed over Snoqualmie Pass in 1915, east of Seattle – considered one of the most treacherous mountain passes in the state.<sup>5</sup>

### Moving Assembly Line

The Ford Motor Company began production of the Model T in Seattle in 1913 at a multiple-story factory building in the South Lake Union area on the corner of Fairview Avenue and Valley Street (presently the Craftsman Press Building). This facility was the first automotive assembly plant on the West Coast,<sup>6</sup> chosen above Portland, San Francisco, and Los Angeles in a race to serve western markets. Designed by architect John Graham, Sr., the 1913

<sup>4</sup> "Seattle Drives Ford," *Old News: The Quarterly Publication of Seattle's Museum of History & Industry (MOHAI)*, vol. 3, issue 3, Autumn 2003.

<sup>5</sup> "Seattle Drives Ford: A Century of Cars and a City," Exhibit presented at the Seattle Museum of History & Industry, January 2004.

<sup>6</sup> *Ibid.*

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 13

building was Ford's third regional assembly plant in the country outside of Detroit, Michigan and Atlanta, Georgia. The plant boasted the West Coast's first "moving" assembly line, which had debuted just months earlier at the Ford Motor Company's Albert Kahn-designed Highland Park plant in Detroit. The process was an improvement on the static assembly line, which had been introduced along with the Model T in 1908.<sup>7</sup>

By the time of the Seattle assembly plant's opening in 1913, the Ford Motor Company had developed all of the basic techniques of the moving assembly line and mass production of automobiles. Placed in a vertical configuration to take advantage of gravity, the process began at the assembly plant's top floor, and a conveyor belt moved each car frame through the factory, with workers adding components at each station along the way. In Seattle, the heaviest elements, including the chassis, were assembled on the first floor. Completed cars would then be rolled out the doors, and final testing and touch-up occurred under open air sheds.

This revamped assembly line process was a pioneering innovation compared to older manufacturing processes. It reduced chassis assembly time from 12 ½ hours to less than 2 hours and 40 minutes. Later innovations reduced assembly time even further, to a total of 93 minutes.<sup>8</sup> Parts were sent from Detroit by train, assembled at the Seattle plant, and the finished cars were driven or shipped by rail to dealers.

After World War I, automobile ownership skyrocketed and Ford responded by expanding production throughout the United States and globally. The Seattle assembly plant produced Model T's for the entire Pacific Northwest, including Alaska and as far east as Montana. According to one source, "Ford was in the process of a national decentralization of its manufacturing to reduce shipping costs for the still tremendously popular Model T" and the slogan "build them where you sell them" prevailed.<sup>9</sup> By the end of 1919, Ford was producing fifty percent of all cars in the United States, and forty percent of all British cars. By 1920, half of all cars in the U.S. were Model T's.<sup>10</sup> The 1913 Seattle assembly plant produced 575 Model T's in its first month of operation and continued to produce thousands of cars each year until the construction in 1932 of the much larger Ford Motor Company Assembly Plant in Seattle on Marginal Way.<sup>11</sup>

Due to declining sales, the Ford Motor Company discontinued the Model T in 1927, and closed down operations for almost six months to develop its next effort -- the immensely popular Model A. Production of the Model A at the Seattle assembly plant began in February 1928. Responding to a more affluent consumer market, the Model A was more powerful, more comfortable, and better equipped than its predecessor. It had a faster engine, a modern chassis with four-wheel brakes, improved steering, and safety glass. The most successful new car introduction in history, it went on to sell five million models over the next few years. It was in the throes of these record sales that Ford announced their plans to construct a new regional assembly plant and distribution center to be located in Seattle.

<sup>7</sup> [http://en.wikipedia.org/wiki/History\\_of\\_Ford\\_Motor\\_Company](http://en.wikipedia.org/wiki/History_of_Ford_Motor_Company).

<sup>8</sup> Ibid.

<sup>9</sup> Boyle Wagoner Architects, "Historic Building Preservation Plan Stages I, II & III: Federal Center South, Building No. 1201, GSA Building No. WA0953KC, Seattle, WA," 19 August 1997, p. 2.

<sup>10</sup> Ibid.

<sup>11</sup> "Seattle Drives Ford." Exhibit, 2004.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 14

### Ford Motor Company Assembly Plant in Seattle

The Ford Motor Company Assembly Plant was constructed in 1930-1932 as an important component in Henry Ford's vision of the company's industrial decentralization. Coming on the heels of a record sales year, the plant provided the requisite size and amenities to offer the company substantial cost savings, while at the same time reaching greater production capacity. Prior to 1910, most companies served the far West from their eastern headquarters. After World War I, however, rapid population growth greatly enlarged demand on the Pacific Coast, and rising transport charges markedly increased the cost of cross-country rail shipments.<sup>12</sup> The Ford Motor Company calculated that decentralization would reduce expenses by decreasing the overall weight of its shipments and improve service by increasing the accessibility of its distributing facilities. This is exactly the promise the new Seattle plant realized.

Located on a generous thirty-three acre site south of downtown Seattle, the new property was far more advantageous than its predecessor in its ability to exploit natural resources and to connect to rail, road and water systems for national and international distribution.

Production demand had surpassed the capacity of the older South Lake Union plant, which also could not accommodate improvements in Ford's assembly process. In contrast to the earlier Ford building, the new Seattle assembly plant reflected changes made by the Ford Motor Company policy in 1923 to shift from multi-story to one-story factory complexes. Ford specifically planned this change in architectural design to further the potential of the factory site by realizing greater production efficiencies, lowering the cost of the automobile, and therefore, selling more of them both domestically and internationally.

Ford purposely located the assembly plant on property adjacent to the Duwamish River, where it could be integrated into existing ocean-based shipping routes with the construction of a large dock was then tied into adjacent rail lines. In turn, the wide open parcel provided for efficient internal driving areas and landing stages that, combined with the placement and orientation of the buildings, expedited the speed and ease of receiving and moving raw materials and building component parts. The site's transportation connections facilitated the shipping and distribution of automobiles and other products nationally and internationally. The lateral production process across the site and buildings was further complemented by Ford's system of "vertical integration" in which much, if not all raw goods used for car production, were owned and manufactured in Ford facilities and transported by Ford vehicles and ships.

The stock market crash of 1929 ushered in the Great Depression just as bids had been let and construction on the \$4 million facility was about to begin. During the early years of the Great Depression, the city of Seattle benefited from the many jobs that the Ford Motor Company Plant created for local residents. Because of rising unemployment, Henry Ford announced that he wished construction work to get underway at the earliest practicable date to benefit Seattle wage earners. Ford also viewed construction of the Seattle assembly plant as being consistent with President Hoover's campaign for winter employment that same year.<sup>13</sup> A contemporary business journal reported that the building of the Ford Plant shattered Seattle's previous building records for factory construction in any single year.

<sup>12</sup> Fogelson, *The Fragmented Metropolis*, 128, quoting from the Ford Motor Company Archives in Dearborn, Michigan, from notes dated June 25, 1926.

<sup>13</sup> [http://w3.gsa.gov/web/p/jnteraia\\_save.nsf/cf0d4c7c0de34938852563d3004975f3/5b7aab7b0a1cfa25852565d90053a106?OpenDocument](http://w3.gsa.gov/web/p/jnteraia_save.nsf/cf0d4c7c0de34938852563d3004975f3/5b7aab7b0a1cfa25852565d90053a106?OpenDocument)

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 15

Clinton Construction of San Francisco was the general contractor for construction of the building, but many subcontracts went to local companies, including Jorgenson and Company for ornamental bronze work, Wallace Bridge and Structural Steel for part of the steel fabrication, Pacific Door and Manufacturing for millwork, and West Coast Wood Preserving for creosoted Douglas fir block floors. Additional jobs were generated by the continued dredging of the Duwamish River and improvements to East Marginal Way, which were to serve as the major transportation conduits for the factory.

In the spring of 1931, the city of Seattle, inspired by this huge construction project, ran a two-page article in the *Saturday Evening Post* which proclaimed to "several million people...that there is a young, progressive city out west that is carrying on despite (the) nationwide business depression." The new facility would be employing 2,000 workers under J.C. Donnelly, the plant's first manager.

The Ford Motor Company Assembly Plant's completion was announced in January 1932. However, production of automobiles was delayed for 60 to 90 days. Unusual for the time, there are several theories as to the explanations for the delay. Some reason that the market demand for new automobiles had declined to a record low in comparison to the explosive growth in the late 1920s, followed by the effects of the Great Depression. Others postulate that the factory's power production was not yet operational. The photograph that accompanied the construction announcement showed a power plant with no smoke stack. Nevertheless, the first Ford Model A's rolled off the new Seattle assembly line in May 1932. The vast new plant turned out only 250 automobiles in its first month. In July, the company held an official open house inviting the public to witness the "famous assembly line" in action.

During its first year of operation, the assembly plant produced four-cylinder cars and "delivery trucks," as well as vehicles equipped with the revolutionary Ford V-8 engine, introduced that same year. Unfortunately, the factory was only in operation as a production plant for six months due to the effects of the Great Depression and dramatically declining automobile sales. In December 1932, the facility shut down production completely after completing only 2,000 cars, thus ending Seattle's role as a center of car production. Ford continued to operate the plant as a sales and service facility through 1941.<sup>14</sup>

The Ford Motor Company sold the assembly plant to the U.S. Government in 1942. Through the next decades, the former Ford Motor Company Assembly Plant was used by both private and public organizations for a number of defense and manufacturing purposes. As early as 1940, the U.S. Army occupied a portion of the facility which had become known as the "Seattle General Depot" and by 1942 had constructed two new vernacular warehouse buildings (Building 1202 and Building 1203) on land immediately northwest of the assembly plant. The U.S. Army continued to occupy the facility until 1956, dominating the entire 4000 block of East Marginal Way with warehouses, depots, offices, and clinics.<sup>15</sup>

In 1956, the U.S. Air Force acquired control of the property and leased the facility to the Boeing Company. A year later, in 1957, the Boeing Company purchased the property. Known as the Boeing Airplane Company Missile Production Center, the facility provided support functions for several aerospace and defense related development programs, including the organizational and management facilities for the Minuteman-1 missile program, deployed in 1960, and the Minuteman-II missile program, deployed in 1969.

<sup>14</sup> "History of Seattle Branch, Reported February 24, 1941," document obtained from Ford Motor Company Archives and in files of U.S. General Services Administration, Northwest/Arctic Region, Regional Preservation Office.

<sup>15</sup> Boyle Wagoner Architects, "Historic Building Preservation Plan Stages I, II & III," 3.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 16

These nuclear missile systems, featuring solid rocket boosters (providing faster lift-offs) and the first digital flight computer, were developed in response to the Cold War between the U.S. and the Soviet Union in the 1960s and 1970s. The Boeing Aerospace Group also used the former Ford plant for several other development and manufacturing uses, such as developing aspects of the Lunar Orbiter Program, producing unstaffed spacecraft to photograph the moon in 1966-1967, the BOMARC defensive missile system, and hydrofoil boats. After 1970, Boeing phased out its operations at the former Ford plant, moving them to the Boeing Space Center in the city of Kent and the company's other Seattle plant complex.<sup>16</sup>

In 1973, the U.S. General Services Administration (GSA) acquired the property after the Boeing Company's departure, adapting it for use as offices and a supply depot for various federal agencies. As early as 1962, due to an increasing need for space, U.S. Government officials had considered plans for a second federal building in Seattle -- \$29 million was authorized for a new facility.<sup>17</sup>

Known as "Federal Center South," GSA embarked on a \$5 million renovation and modernization of the Ford plant, including demolishing several non-contributing buildings on the north portion of the property, in order to provide for additional parking. Since acquiring the facility, the GSA has assigned space in the facility to a wide range of federal agencies for a variety of different uses, including offices for the U.S. Bureau of Indian Affairs; a recruiting post for the Defense Department; a branch of the Public Health Service; an Air Force surplus facility; and storage and offices for the U.S. General Services Administration.

Because of its unique configuration, high degree of integrity, and important role as one of the Ford Company's largest regional manufacturing, sales, and distribution facilities in 1932, the Ford Motor Company Assembly Plant in Seattle is eligible for listing in the National Register of Historic Places under Criteria A at the local level of significance.

### Criterion C

The Ford Motor Company constructed the 1932 Assembly Plant in Seattle according to the designs of industrial architect Albert Kahn (1869-1942). Kahn worked on more than 1,000 commissions from Henry Ford throughout his career, as well as hundreds more from other automakers. Kahn's work epitomizes the physical embodiment of America's rise to global prominence as the 20th century's economic and industrial power.

Kahn's designs, rendered in a wide range of industrial building types spanning five decades, are considered pragmatic solutions to the unprecedented needs of organizing work for a new industrial revolution in the early twentieth century. His work is significant because, unlike his more famous contemporaries such as Peter Behrens, Walter Gropius, and Le Corbusier, Kahn did not romanticize "the machine." While these seminal icons may have admired Henry Ford's principles and championed buildings made "by machine tools in a factory assembled as Ford assembles cars," it was Kahn who worked with Ford and developed the prototypes and mature buildings.<sup>18</sup> The application of the principals of "scientific management" by these innovators had wide-ranging consequences. These are reflected in Kahn's architectural designs and innovations as realized in the 1932 Ford Motor Company Assembly Plant in Seattle.

<sup>16</sup> "Boeing Missile Production Center to be Phased Out," *Seattle (WA) Times* October 15, 1970, A1.

<sup>17</sup> "Old Missile Factory Will House Federal Agencies," *Seattle (WA) Times*, January 14, 1973, B1.

<sup>18</sup> Mauro F. Guillén, *The Taylorized Beauty of the Mechanical: Scientific Management and the Rise of Modernist Architecture* (Princeton and Oxford: Princeton Architectural Press, 2006), 28.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 17

About sixty buildings by Albert Kahn Associates have been listed in the National Register of Historic Places. The two contributing buildings, the Assembly Plant and Oil House at the Ford Motor Company Assembly Plant in Seattle are outstanding examples of Kahn's industrial architecture that retain integrity and are in very good condition. They are considered eligible for listing in the National Register of Historic Places under Criterion C for their architectural significance and association with master architect Albert Kahn. The property is an intact industrial cultural landscape, which demonstrates how Kahn worked with Ford to design a regional manufacturing and distribution center that harnessed the specific location, layout, and relationships of Seattle's natural resources and connected with national distribution systems while efficiently integrating these systems with the astute use of labor and the moving assembly line process.

### **Architect Albert Kahn**

Albert Kahn was an extremely prolific architect throughout his 46-year practice. Between 1900 and 1940, his firm designed over 2,000 factories. At its peak in the late 1930s, Albert Kahn Associates was the largest architectural firm in the world, employing a staff of over 600, and producing designs for one-fifth of the industrial buildings constructed in the United States. However, Kahn's work is often most closely linked to the rise of Henry Ford, 1863–1947, and the Ford Motor Company.

Kahn's architecture gave form to Ford's own contributions based on the work of Frederick Winslow Taylor, (1856–1915). Taylor, an engineer, wrote the noted book, *Principles of Scientific Management*, 1911, which introduced principles to optimize the production process through analytical methods such as the flowchart, time and motion studies to standardize work tools and working conditions, and selection of the cheapest yet most adequate worker to perform each of the divided tasks.<sup>19</sup> Ford tailored and furthered those efforts by two other innovations: adding the "moving motorized assembly line" and "vertical integration" in which one company owned not only the means of production but any raw material associated with it.

Kahn's own philosophy of organizing work embraced the principles of Ford and Taylor. For example, he insisted on rigorous and close team collaboration. He rejected the notion of the architect as a "lone artistic genius" intent on self-expression, so much so that no graduate student from an architectural school was even considered for employment. Instead, draftsmen were recruited and trained from within the practice. It is also noteworthy that Kahn, Ford and Taylor, all closely related in age, were also all self-educated men who distrusted solutions and people connected to academia. Taylor, who began working on shop floors as a patternmaker, received his degree in mechanical engineering through correspondence courses.

Albert Kahn and Associates adopted the emerging "scientific" methods of processing work and dividing labor to great success, delivering a comprehensive resolution of needs -- a resolution that resulted in what now is considered aesthetically stunning architecture.

### Background and Early Innovations

Albert Kahn, the oldest son of a rabbi, was born in the industrial town of Rhaunen, Germany. His formal education ended in 1880 when he was eleven years old and his family immigrated to Detroit, Michigan in 1880. This move proved professionally fortuitous for the boy. "In the late nineteenth century, the industrial geography of the United

<sup>19</sup> Mauro F. Guillén, *The Taylorized Beauty of the Mechanical: Scientific Management and the Rise of Modernist Architecture* (Princeton and Oxford: Princeton Architectural Press, 2006), 5.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 18

States underwent a decisive shift linked to the emergence of the automobile and aeronautics industries" as a chain of regional metropolises such as Pittsburgh, Toledo and Chicago counter-balanced the industrial centers of the original thirteen colonies.<sup>20</sup> In that chain, Detroit, as the city where the automobile industry originated, emerged as the primary link for the next half-century and the foremost industrial center in the United States.

In 1884, because of a lack of funds, Kahn began his professional training as an apprentice to an architect with the firm of Mason and Rice in Detroit. In 1891, Kahn was awarded a scholarship for a year's travel in Europe. Upon his return, he formed a partnership with George W. Nettleton and Alexander B. Trowbridge. By 1902 only Kahn remained, though he quickly hired a diverse group of talented but mostly unschooled men with complementary skills. In any case, Kahn's organization emerged as its own well-oiled, high-performing machine.

In 1903, when Henry Ford founded the Ford Motor Company, Kahn was also named architect for the Packard Motor Car Company (founded in 1899). Kahn designed nine factories for the firm between 1903 and 1905, but it was the Packard Plant Building Number 10 in Detroit, 1905, that caught Ford's attention. A fireproof, multi-story, concrete-framed building, it incorporated innovations such as fewer interior columns with wide thirty-two foot spans and reconfiguring steel bracing so that the exterior walls did not have to include the typical large horizontal girders, thus permitting glass to extend up to the ceiling.

Additionally, "asymmetry and irregularity in bays and members were accepted where necessary to follow structural and functional needs" (rather than maintain a strict module, which a more formal modernist architect might well have done.)<sup>21</sup> This advanced structural system depended on the manufacture of appropriate reinforcing rods devised by Kahn's engineer brother Julius, a manufacturer of reinforcing bars and concrete. Building No. 10 "passed the baton" of progressive industrial architecture to the automotive industry and to Kahn as its leading architect.

In his next pivotal building, the George N. Pierce Company's "New Automobile Plant," Buffalo, N.Y., 1906, some of Kahn's enduring trademarks emerged, features that are also seen in the 1932 Ford Motor Company Assembly Plant in Seattle. These characteristics include a one story building of varying heights with saw tooth roofs, which not only day lit the interior but permitted detail work to be located in any area of the plant, not just near exterior walls.

In addition, all the operations of a plant, seen in both the 1906 and the 1932 factories, were "related along lines of circulation determined by the flow of work" beginning with raw materials<sup>22</sup> This is an "organic" principle, which could be interpreted as following the adage of famous Chicago architect Louis Sullivan, who established the term "form follows function" based on his appreciation of nature. Finally, the entire plant was finished within nine months, ensuring Kahn's reputation as a "can-do man." Thus, Kahn's Seattle factory shows an unlikely but finely gauged integration of the organic principle in which tasks flowed in a natural sequence, as well as the highly theoretical F.W. Taylor's principle of efficiency. Kahn's architectural strategies always were meant to enhance Ford's ability to increase profitability.

<sup>20</sup> [http://www.architectureweek.com/2000/1101/culture\\_1-1.html](http://www.architectureweek.com/2000/1101/culture_1-1.html). Retrieved November 6, 2007. "The Factory Architecture of Albert Kahn," by Louis Bergeron and Maria Teresa Maiullari-Pontois. *ArchitectureWeek* excerpted the article from *Industry, Architecture, and Engineering: American Ingenuity 1750-1950* (New York: Harry N. Abrams, 2000).

<sup>21</sup> Grant Hildebrand, *Designing for Industry: The Architecture of Albert Kahn* (Cambridge, MA.: MIT Press, 1974), 3.

<sup>22</sup> *Ibid.*, 39.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 19

### Parallel Development: Ford and Kahn

Many industrial commissions followed. Kahn's first design was completed in conjunction with then Ford architect Edward Grey for the Ford Motor Company's Old Shop facility in Highland Park, Detroit, also known as Ford Highland Plant. It consisted of a brick-clad four story structure completed in 1910 (demolished in 1959), two years after the announcement of the Model T. As the public face for the new company, the building contained some vestigial ornamental detail. However, its primary technical innovation from other contemporary factories was the inclusion of steel sash glazing imported from England.

It was Ford's belief that by harnessing the "free labor" of gravity, he could increase production output by five-fold. Raw materials were hoisted to the top floor and subassemblies "filtered" down through gravity chutes, conveyors, tubes, or simply holes in the floor to finishing areas below where the heaviest and largest components were worked on, hence the wish for a multi-story structure. "Thus the building was conceived as a three-dimensional matrix whose planning relationships had to be studied not only within each floor but also from one floor to another,"<sup>23</sup> a concept seen in the two story portion of the Seattle plant.

But Ford was already moving on to even greater efficiencies. The assembly line—increasing the Model T's production speed eight fold—debuted at the Ford Highland Plant. The company policy changed in 1923, to a policy of one story buildings "to the virtual exclusion of the multi-story scheme"<sup>24</sup> in order to further exploit the potential of the moving assembly line. This called for not only sheer open areas but for large, horizontally oriented buildings predicated on expansion and low maintenance.

The significance of the Ford Highland Plant's design is reflected in the fact that it apparently served as a direct model for the famous Fiat factory, 1928, by Giacomo Matté-Trucco. The Fiat factory was called "the most nearly Futurist building ever built" by critic Reyner Banham and in many ways was "a near replica of Ford Highland Park,"<sup>25</sup> eighteen years its senior. This is noteworthy because it underscores the point that while the Fiat factory is invariably included in histories of Modern architecture, Kahn's innovative Highland Park plant is not.

Ford finally realized this grander vision of the assembly line in a one story factory designed by Kahn in 1917-1918 on the vast Rouge River site near Ford's home. The Rouge River Complex grew into the largest manufacturing facility in the U.S., with a force that peaked at 120,000 workers. Steel framing was employed because the fireproofing afforded by reinforced concrete was not a significant issue in a one story building and lent itself to easy expansion. Steel was also much faster to erect. The plant was completed within fourteen weeks after the drawings were issued.

The Rouge River Complex is also important in pointing to another physically realized innovation by Ford. Reflecting his desire for complete control over his product through "vertical integration," the Rouge Glass Plant (1922), a rectangle in plan of 280 feet x 750 feet and housing four massive furnaces, produced glass for Ford cars made from Ford sand deposits at Carlton, Michigan, which were directly connected by rail lines to the factory.<sup>26</sup>

Coupled with Ford's belief in the assembly line, Kahn's approach to design was also used on behalf of America's emerging military strength. Kahn's first military effort with the Ford Company began during World War I, when he

<sup>23</sup> Grant Hildebrand, *Designing for Industry*, 45.

<sup>24</sup> Ibid.

<sup>25</sup> Ibid., 109.

<sup>26</sup> Ibid., 101.



United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 20

was hired to design the Eagle Submarine Chaser Plant in 1917. This building was financed by the federal government at the insistence of Henry Ford, who convinced the government that the boat, like the Model T, could be mass-produced. The government agreed, and within six months, the plant was designed, constructed, and launched its first boat.<sup>27</sup> The Eagle Plant featured design characteristics that became typical of Kahn's work: a linear building plan, clerestory windows to provide interior light, and lightweight, steel-framed construction. The saw tooth roof profiles and functional clerestory windows provided interior light and ventilation, which contributed to the overall intent by Ford and Kahn to create space that did not compromise the health of the factory workers.

### Characteristics of Kahn's Industrial Architecture

The impressive structural efficiency of Kahn's early buildings predates and usually surpasses the work of his European peers. While they were defining beauty in terms of the machine, debating how modernist architecture could act as a symbolic metaphor for the mechanical or what the forms and facades of modernist architecture should look like. Kahn delivered efficient buildings that were on budget and on time but not formally nuanced. His exteriors, for example, are content to be visually inoffensive to a wide swath of the public, including his clients. They feature familiar materials and vaguely ornamental details abstracted just enough to make them recognizable as descendants of an unthreatening Western, classical tradition. At the same time, they are also restricted in the number of connections and shapes required, making them faster and cheaper to install, a quality apparent in the Seattle factory.

Kahn's buildings are also characterized by their enlightened architectural consideration of the worker, a high priority that Ford not only encouraged but demanded. These ideas furthered Ford's industrialist goals and became typical architectural strategies used in American offices and factories throughout the country. Good ergonomics were considered to go hand-in-hand with good business, in contrast to some European architectural models, which stressed altruism and the humanizing of the work place for its own sake.

The Ford Motor Company Assembly Plant in Seattle exhibits virtually the entire repertoire of Kahn's expertise in integrating healthier environments on behalf of American industry. For example, his factories are known for the maximum use of ventilation and natural lighting aided by a combination of continuous strip windows, roof monitors, and skylights so that with better work conditions afforded by evenly distributed, generous daylight, production quotas could be increased.

Kahn's later Ford buildings show sophisticated development in that they often eliminated the saw tooth roof as a regular series of north-facing roof windows since the illumination for workers on the floor would be uneven, thus limiting the flexibility of the entire plant. Better, more even lighting also permitted Ford to put the machines closer together, an economy of both ergonomics in how workers moved among stations and in reducing floor areas.

In 1916, the Ford Educational Department declared that "the brighter factory environment was one of the 'very best investments' the Ford Company ever made."<sup>28</sup> When the Ford Motor Company Assembly Plant in Seattle opened, the *Seattle Times* noted that the new plant's "flood of softened daylight," enhanced by other lighting fixtures "contributed to the mental attitude of contentment on the part of the employees."<sup>29</sup> Ford's concern for cleanliness was no less keen: "seven hundred employees were responsible for cleaning the shops, washing the windows, and

<sup>27</sup> Hildebrand, *Designing for Industry*, 92.

<sup>28</sup> Ibid, 53.

<sup>29</sup> Ibid.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 21

repainting. This was the expression of his conviction that the quality of the work environment could positively affect the workers' attitudes toward their tasks."<sup>30</sup>

Standard character-defining features present in the Seattle assembly plant also include the exposed interior steel structure and a crane way structurally supported by the walls and triangular secondary trusses, strengthening lateral stability. These crane ways were configured so that they were suspended from beams or lighter triangular trusses and were continuously day-lit along their entire length, providing greater and safer movement on the floor below. Other features include standardized steel parts used in repetition; the imaginative use of long-span steel trusses to create a larger floor area free of columns; a two story area harnessing gravity on behalf of assembly; and a fairly conservative approach to the exterior façade except for the enhanced monumentality of the entrance near the Boiler Room on the south end of the east facade.

### Other Kahn Industrial and U.S. Government Projects

Between 1908 and 1916, some of Kahn's other clients included the industrial firms Chalmers Motor Co., Chevrolet Motor Co., the Chrysler Corp., Dodge Brothers, General Motors Corp., B.F. Goodrich Rubber Co., the Studebaker Co. Some non-industrial and conservative buildings include many residential commissions and for the University of Michigan, the Engineering Building, 1903, the Hill Auditorium, 1912, the William L. Clements Memorial Library, 1922, and Angell Hall, 1923. In addition, there is the Detroit Athletic Club, 1915 and the landmark twenty-eight story Fisher Building, 1929, among many others.

Kahn's later commissions for the U.S. government continued throughout World War II when his expertise in creating vast spans was utilized for tank arsenals and the building of increasingly large aircraft such as the PB2M with a wingspan of over 200 feet.<sup>31</sup> During the Great Depression, he won work from the Soviet Union and designed a \$40 million tractor plant in Chelyabinsk, the first of many such plants. Kahn established a branch office with twenty-five employees and taught over 4,000 Russian personnel in organizational and design skills until 1933. Also in 1929, Ford was recruited to begin building cars in Russia and spreading "Fordism" to Russian industry.

### The Seattle Plant

The original property on which the Ford Motor Company Assembly Plant in Seattle stands was selected by Ford for its location and "splendid docking arrangements,"<sup>32</sup> which provided the opportunity to integrate rail and ship transport systems to enhance raw product delivery and the shipment of finished cars domestically and abroad. Kahn's design maximized the site's potential through his placement and organization of the buildings on the site, which is anchored on the south by a dock and connects to railroad lines on East Marginal Way.

The intact property is an industrial cultural landscape and a demonstration of a radical twentieth century departure from older industrial landscapes in which facilities were commonly located near one or perhaps two natural resources. Ford, however, required more than conventional proximity. The Seattle site is significant because the precise location and spatial relationships between and within buildings, and between the buildings and site, were designed in intentional conjunction with both sea and fresh water port facilities, and integrated into a yet larger distribution system of truck, rail and shipping that addressed national and international marketing needs. Each

<sup>30</sup> [http://www.architectureweek.com/2000/1101/culture\\_1-2.html](http://www.architectureweek.com/2000/1101/culture_1-2.html).

<sup>31</sup> Hildebrand, *Designing for Industry*, p. 193.

<sup>32</sup> "Old Missile Factory Will House Federal Agencies," *Seattle (WA) Times*, July 17, 1932.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly  
King County, Washington*

Section 8 Page 22

component was considered as a critical element within a larger group, much the way an assembly line is conceived, so that resources, siting, architecture and the deployment of human resources all worked together on behalf of industry, profit, and capitalism.

In one sense, the timing of the plant's establishment was expeditious, because the new Milwaukee Railroad line, linking Chicago to Seattle and completed in 1909, amplified the Northern Pacific's connections to Seattle from the Midwest. This relationship reinforced Seattle's position as a major port center. However, building a major factory during the Great Depression proved to be not as fortunate. The "\$4,000,000 facility may not have been built had Ford known that the automobile industry would decline by more than 25% by the end of 1930, and would continue to decline in the following year."<sup>33</sup>

The factory is one of the plants that introduced the new Model B Flathead V-8, which offered eight rather than four cylinders. Until 1932, Ford had always produced only one basic car at a time.<sup>34</sup>

Kahn's buildings tracked the birth and maturity of both America's automotive industry and its critical role in disseminating the model of "scientific management" throughout many arenas and levels of society. The Ford Motor Company Assembly Plant, part of a significant industrial cultural landscape in American history, exemplifies his mature period of building. It is in very good condition and is eligible for listing under Criterion C in the National Register of Historic Places.

<sup>33</sup> Boyle Wagoner Architects, "Historic Building Preservation Plan Stages I, II & III," 2.

<sup>34</sup> [http://en.wikipedia.org/wiki/Ford\\_Model\\_B\\_\(1932\)](http://en.wikipedia.org/wiki/Ford_Model_B_(1932)).

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 9 Page 23

### Bibliographic References

- Bergeron, Louis, and Maria Teresa Maiullari-Pontois. "The Factory Architecture of Albert Kahn," Available: <[http://www.architectureweek.com/2000/1101/culture\\_1-1.html](http://www.architectureweek.com/2000/1101/culture_1-1.html)> Accessed: November 6, 2007. In *ArchitectureWeek*, article excerpted from the authors' book *Industry, Architecture, and Engineering: American Ingenuity 1750–1950* (New York: Harry N. Abrams, 2000.)
- Boyle Wagoner Architects. *Historic Building Preservation Plan, Stages I, II, and III, Federal Center South, Building No. 1201, GSA Building No. WA0953KC*, Seattle, Washington, 1997.
- Gray, Connie Walker. "Determination of National Register Eligibility for the Federal Center South Complex, Seattle, Washington." Historical Research Associates, Inc., Seattle, Washington, November 5, 2002.
- Guillén, Mauro F. 2006. *The Taylorized Beauty of the Mechanical: Scientific Management and the Rise of Modernist Architecture*. Princeton, NJ: University Press.
- Hildebrand, Grant. 1974. *Designing for Industry: The Architecture of Albert Kahn*. The MIT Press, Cambridge, MA, and London.
- "History of Seattle Branch, Reported February 24, 1941," document obtained from Ford Motor Company Archives and in files of U.S. General Services Administration, Northwest/Arctic Region, Regional Preservation Office.
- <[http://en.wikipedia.org/wiki/History\\_of\\_Ford\\_Motor\\_Company](http://en.wikipedia.org/wiki/History_of_Ford_Motor_Company)>.
- <[http://en.wikipedia.org/wiki/Ford\\_Model\\_B\\_\(1932\)](http://en.wikipedia.org/wiki/Ford_Model_B_(1932))>. Retrieved December 14, 2007.
- Kahn, Albert. 1945. Design of Factories: Personnel Feeding. Buildings for Industry, *Architectural Record*, p. 29. Reprinted 1957.
- Seattle Times*. 1932. July 17.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

*Ford Motor Company Assembly Plant  
King County, Washington*

Section 10 Page 24

---

### UTM Coordinates, continued:

	Zone	Easting	Northing
5.	<u>10T</u>	<u>549457.06</u>	<u>5267291.5</u>
6.	<u>10T</u>	<u>549332.02</u>	<u>5267632.39</u>

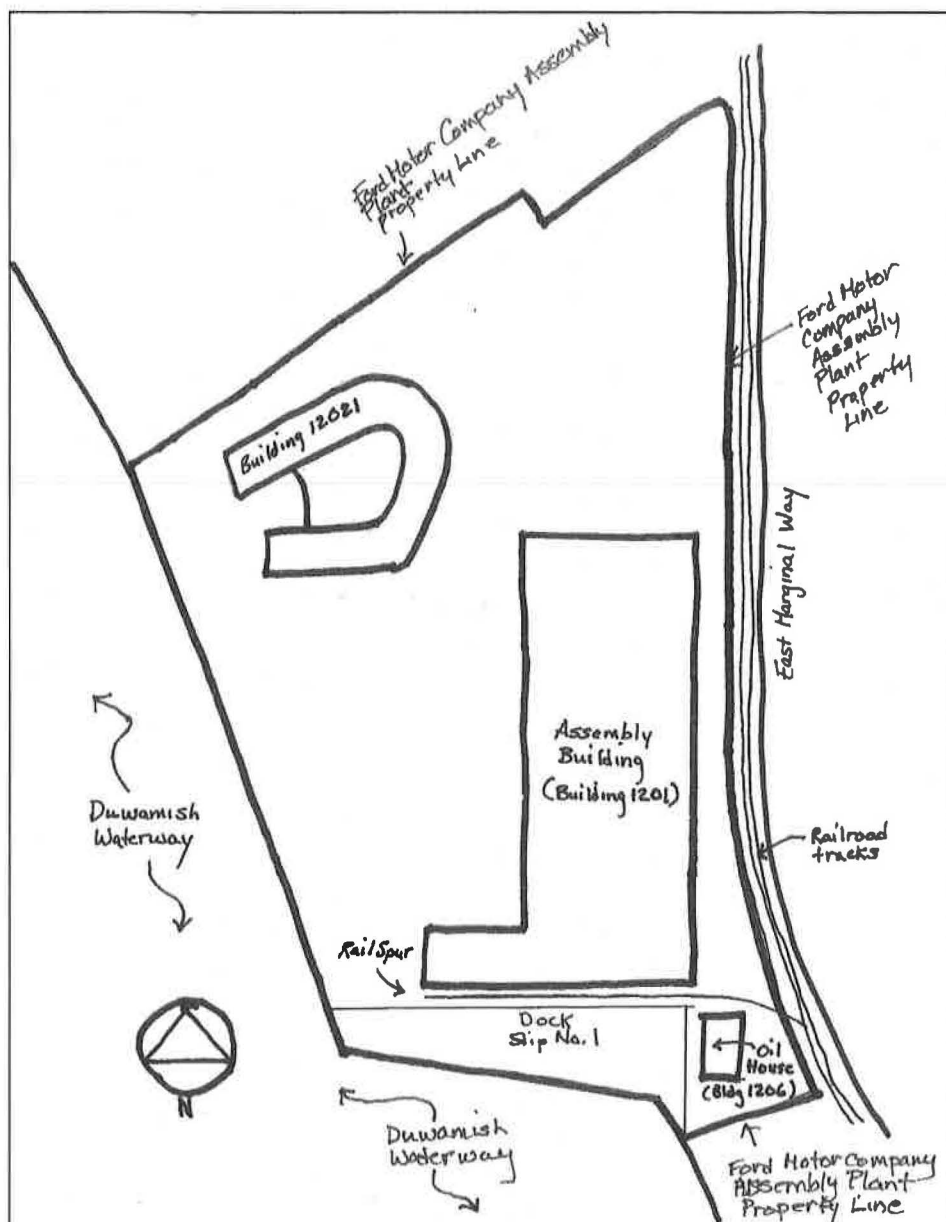
United States Department of the Interior  
National Park Service

# National Register of Historic Places Continuation Sheet—Additional Documentation

Ford Motor Company Assembly Plant  
King County, Washington

Section Additional Documentation Page 25

## Sketch Plan of property



United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet—Additional Documentation

*Ford Motor Company Assembly Plant  
King County, Washington*

Section Photos Page 26

---

### Aerial Views



View to west photographed by Kemer Nelson for GSA, January 2013



View to east by Kemer Nelson for GSA, January 2013

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet—Additional Documentation

*Ford Motor Company Assembly Plant  
King County, Washington*

Section Photos Page 27

### Photo Log

Name: Ford Motor Company Assembly Plant

Location: 4735 East Marginal Way  
Seattle, WA 98134

Photographer: Chris Hetzel, ICF Jones & Stokes

Date of Photographs: January 24, 2007

Location of Negatives: General Services Administration Headquarters, Office of Chief Architect

1. Building 1201, Perspective of East (primary) and South (side) elevations; View: Northeast
2. Building 1201, Perspective of East (primary) and North (side) elevations; View: Southwest
3. Building 1201, Perspective of East (primary) and North (side) elevations; View: South
4. Building 1201, North (primary); View: Detail
5. Building 1201, North (primary); View: Detail
6. Building 1201, East (primary) elevation; View: South
7. Building 1201, Interior, office; View: North
8. Building 1201, Interior, warehouse/assembly; View: Northwest
9. Building 1201, East (primary) elevation; View: Northwest
10. Building 1201, Interior, boiler room; View: Southeast
11. Building 1201, Interior, warehouse/assembly; View: Northwest
12. Building 1201, East (primary) elevation; View: West
13. Building 1201, Perspective of South (side) elevation w/ East elevation; View: Northwest
14. Building 1201, Perspective of South (side) elevation w/ West elevation; View: East
15. Building 1201, Perspective of West (rear) elevation w/ South; View: East
16. Building 1201, Interior, crane way; View: West
17. Building 1201, Perspective of West (side), warehouse/assembly, and North (side), craneway, elevations; View: South
18. Building 1201, Perspective of North (primary) and West (side) elevations; View: East
19. Building 1206, North (primary) elevation; View: South
20. Building 1206, East (side) elevation; View: West
21. Building 1206, South (rear) elevation; View: North







RENTAL CENTER SOUTH

NO PARKING

























SPEED LIMIT 15

RESTRICTED AREA





















BUREAU OF INDIAN AFFAIRS  
SEATTLE SUPPORT OFFICE

23540

23541

23542

23543

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES  
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY Ford Motor Company Assembly Plant  
NAME:

MULTIPLE  
NAME:

STATE & COUNTY: WASHINGTON, King

DATE RECEIVED: 8/23/13 DATE OF PENDING LIST: 9/19/13  
DATE OF 16TH DAY: 10/04/13 DATE OF 45TH DAY: 10/09/13  
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 13000823

REASONS FOR REVIEW:

APPEAL: N DATA PROBLEM: N LANDSCAPE: N LESS THAN 50 YEARS: N  
OTHER: N PDIL: N PERIOD: N PROGRAM UNAPPROVED: N  
REQUEST: N SAMPLE: N SLR DRAFT: N NATIONAL: N

COMMENT WAIVER: N

ACCEPT  RETURN  REJECT 10-9-13 DATE

ABSTRACT/SUMMARY COMMENTS:

**Entered in  
The National Register  
of  
Historic Places**

RECOM./CRITERIA \_\_\_\_\_

REVIEWER \_\_\_\_\_ DISCIPLINE \_\_\_\_\_

TELEPHONE \_\_\_\_\_ DATE \_\_\_\_\_

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.



DEPARTMENT OF  
ARCHAEOLOGY &  
HISTORIC PRESERVATION

Allyson Brooks Ph.D., Director  
State Historic Preservation Officer

August 9, 2013

Elizabeth Hannold  
Preservation Specialist  
GDSA, Office of the Chief Architect  
1800 F Street, NW  
Washington, DC 20405

RE: NR Nomination – Seattle Ford Assembly Plant

Dear Elizabeth:

Enclosed is a complete copy of the original nomination for **Seattle Ford Assembly Plant** on archival paper, with Dr. Brooks signature in the commenting official location.

Due to the canceling of our last State Review Board meeting, and your desire to move forward as quick as possible with the nomination, we have not brought the nomination to the review board. However, we will most likely put the nomination on the October meeting agenda as an FYI to the review board.

Looking forward to seeing the Ford Assembly Plant be listed. If you have questions, just let me know.

Sincerely,

**Michael Houser**  
*State Architectural Historian*  
[Michael.houser@dahp.wa.gov](mailto:Michael.houser@dahp.wa.gov)  
(360) 586-3076





August 21, 2013

Ms. Carol Shull  
Interim Keeper, National Register of Historic Places  
National Park Service  
1849 C Street, NW (2280)  
Washington, DC 20240



Dear Ms. Shull:

The U.S. General Services Administration (GSA) is pleased to nominate the Ford Motor Company Assembly Plant (current name Federal Center South) located at 4735 East Marginal Way, Seattle, Washington, for inclusion in the National Register of Historic Places.

The following documents are enclosed:

- Signed original National Register of Historic Places Registration form;
- U.S.G.S. Map;
- Original labeled black and white photographs along with a disk of TIFF images; and,
- Copy of correspondence from the Washington State Historic Preservation Office.

If for any reason any nomination package that GSA submits needs to be returned, please do so by a delivery service as items returned to our offices via regular mail are irradiated and the materials severely damaged. Should you have any questions or concerns regarding this nomination package, please contact Elizabeth Hannold at (202) 501-2863 or [elizabeth.hannold@gsa.gov](mailto:elizabeth.hannold@gsa.gov).

Sincerely,

Beth L. Savage  
Federal Preservation Officer  
Director, Center for Historic Buildings

Enclosures

cc: Story Swett, Regional Historic Preservation Officer