



November 9, 2020

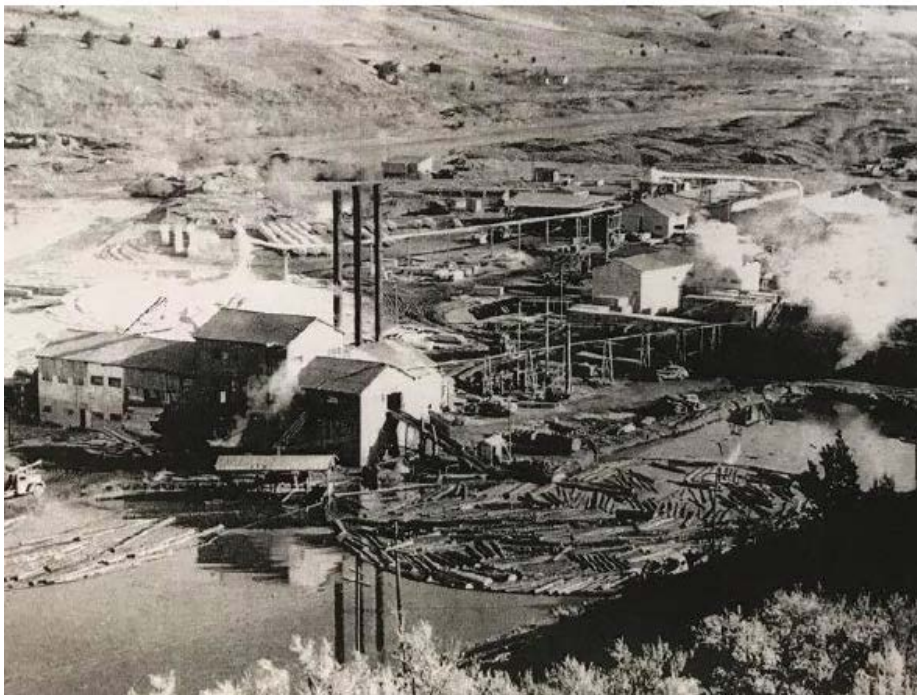
Re: John Day Innovation Gateway – Planar Shed Restoration Scope of Work (Draft) for USDA Community Facilities Grant

BACKGROUND

The City of John Day owns approximately 100 acres along both sides of the John Day River on the west side of town. The area includes the former Oregon Pine Mill property and portion of the Grant Western Mill property, both of which are reclaimed brownfields. The possibility of reopening this land for public use creates both economic and recreation opportunities for John Day residents and visitors.

The City received a Transportation Growth Management (TGM) grant in 2017 and hired an integrated planning team led by landscape architecture firm Walker Macy to work with the community, learn about the site, and develop a concept for how the area could be redeveloped.

The result of this work was the [John Day Innovation Gateway Area Plan](#), an integrated community development, transportation and design plan that envisions the revitalization of the former mill sites and adjacent riverfront properties as a dynamic, thriving and welcoming public space.



Oregon Pine mill site c. 1950, showing the sawmill (front left) and planar shed (center right) with the historic log ponds surrounding both structures along U.S Highway



Oregon Pine

Above image captures the overall vision of the Oregon Pine Site from west to east.

John Day Innovation Gateway - Economic Revitalization
May 2020

The John Day River is a central, cohesive element of the Innovation Gateway area plan (pictured above), with public trails winding through restored habitat along the riverbanks, creating the connective tissue for a wide range of new land uses and a bold vision for the use of reclaimed wastewater. These improvements offer significant public investments for John Day's future and support the City's initiatives to maximize innovation and efficiency, build partnerships and spur a sustainable and resilient economy that retains and attracts a range of residents and businesses to John Day.

PLANAR SHED RESTORATION

An important component of the plan is to honor John Day's identity and character by preserving the last two mill structures on the property – the former sawmill and sorter/planar shed – and converting them into a new hotel/event center and community pavilion, respectively. Both were sited in a low lying area historically surrounded with log ponds used in the mill operations.

The exact build date of the planar shed is unknown but was likely constructed in stages over a 20-year period. The eastern portion of the building is assumed to be the original section and is estimated to have been built sometime during the 1930's. The western portions of the building are



of much different construction and lumber and is estimated to have been built approximately 20 years later, sometime in the 1950's.

The main shed is a 10,955 SF open structure with no interior columns or supports, with a 3,200 SF cantilevered roof extension to the south. Asymmetric trusses are supported by 10" x 10" timber columns spaced 20 feet on center. The trusses are assembled from multiple sawn lumber members with bolted connections. The overall structure was painted white. The shed has a partial concrete slab on grade and three distinct linear concrete strips surrounded by gravel surfacing.

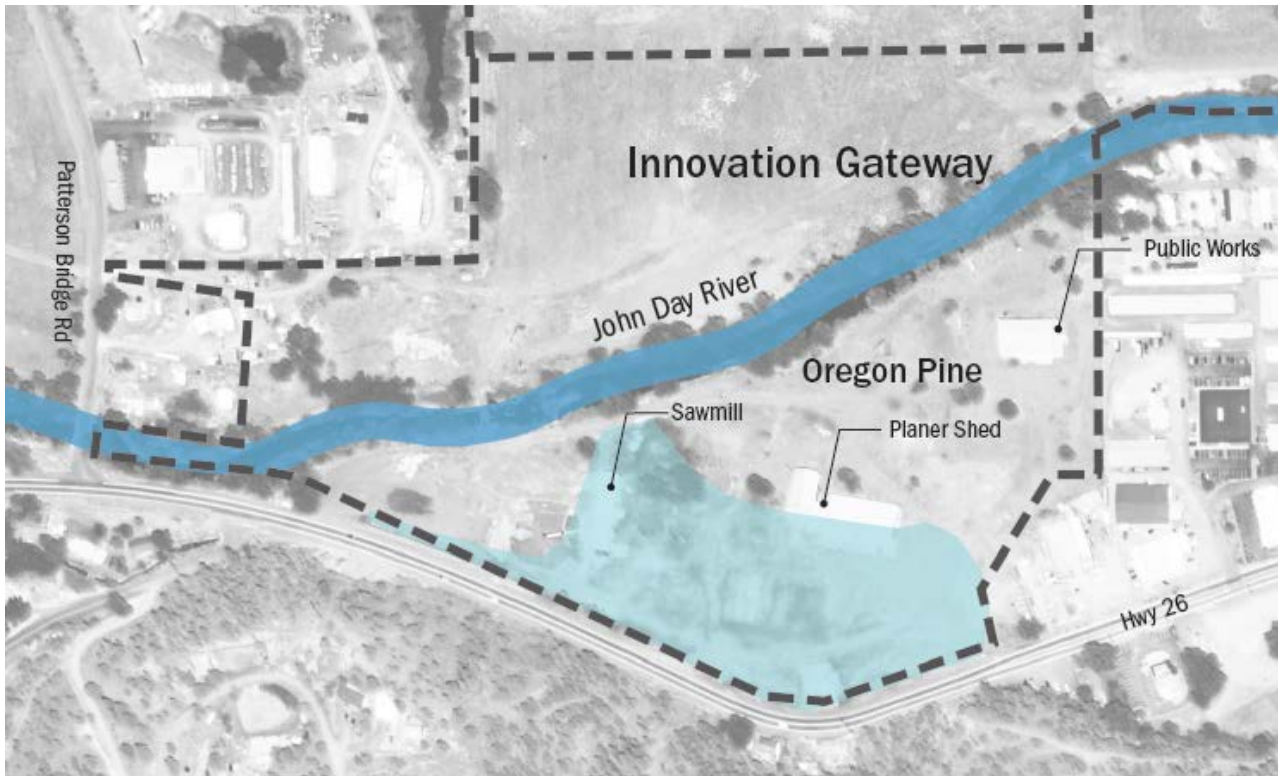
The second building is a 2,458 SF open structure located on the west end of the main shed. It is a timber frame building with a raised timber plank floor over a gravel subfloor surface. Light frame gable trusses form the roof structure.

The third building is a 3,030 SF open structure located to the north of the west building. It is similar to the west building in construction type and detailing with a gable roof perpendicular to the west building roof line. The raised timber plank floor and mezzanine structure have been removed as floor framing members can be observed in the wall assembly. Coarse gravel surfacing remains.



CITY OF
JOHN DAY





The City commissioned a structural assessment by Strux Engineering (Prairie City, OR) in May 2019. The purposes of the assessment was to aid the City of John Day in determining the feasibility of re-purposing this facility to be used as a public gathering space.

As noted in their report:

The eastern portion of the building is a mainly large open space with a roof structure supported by a combination of 2x12 purlins and cantilevered trusses spanning 66' inside with a 20' cantilever toward the front of the building. The roof diaphragm consists only of corrugated metal roofing and sections of fiberglass roofing that are essentially non-existent. The trusses are supported by large timber posts resting on concrete footings. The front of the building contains a continuous footing and stemwall which is enlarged at the locations of the timber posts. The back of the building is of similar construction except that the posts are supported directly on the top of the stemwall and do not contain enlarged footings. The connection to the footings is made by steel plates which are embedded in the concrete. The back wall of the building is nearly all closed off excepting of one section. The closed off sections consist of girts with cross bracing and are covered by metal siding. The front



portion of the building is nearly all open with only timber knee braces to resist lateral forces.

The western portion of the building is assumed to have been built on later. The roof line is bidirectional with the larger portion of the building lying under the north/south roof line. The roof structure is constructed of trusses and the roof diaphragm is composed of rough sawn 2x6 sheathing capped by a metal roof. The truss tails are supported on timber eave beams which rest on the tops of timber posts. The timber posts are supported on concrete footings. A connection between the posts and concrete footings was often times not apparent during the site visit. The main lateral force resisting system consists of girts and plywood between the posts creating wood shear wall action.

Each building is only single story. The east portion of the building contains a mostly concrete slab on grade floor with sections that are bare earth. The west portion of the building contains a raised wood floor 48" above finished grade over approximately half of the building while the northern half of the building is bare earth. The east portion of the building has a plate height of 14'-8" with a maximum truss depth of 12' making the overall building height 26'-8". The west portion of the building has a plate height of 18'-6" with a maximum truss depth of 11' making the overall building height 29'-6".

Structural observations were also made by James G. Pierson Structural Engineers (Portland, OR) in February 2020. Based on their observations, the wood columns were found to be solid with minimal dry-rot with the concrete piers keeping most posts up and out of the flood plain. They determined it is feasible to upgrade the building. Pierson consulted with Western Wood Structures (Tualatin, OR) – a nationally known timber repair company – about the possibility of using aircraft cables to post-tension the bottom chords, relieving some of the over-stressed joints and members noted by Strux's analysis. They provided a rough cost estimate of \$25K per truss or around \$350K for the building based on 14 trusses.

SCOPE OF WORK

The proposed use for the main shed structure is an open park pavilion that can be used for a variety of community events including farmers markets, performances, food festivals and large community gatherings. The pavilion will also support events and gatherings in the outdoor event space to the north. The building will be structurally stabilized with steel or timber cross bracing to meet current codes. A new slab floor will be provided with a paving pattern that recalls the linear concrete strips. Openings on the north and south sides will be expanded to provide generous connections to the adjacent outdoor spaces. The trusses, columns and wood framing will be lightly sandblasted and sealed to retain the current appearance. Exterior materials will be repaired or



replaced with similar industrial materials including corrugated siding and metal roofing. Existing skylights will be replaced allowing natural light into the center of the building.

Several structural issues need to be addressed, which would consist of the following:

- **Structural Modeling.** Reanalyzing the trusses modeling the eccentric joints condition and determining the best approach to repair or replace any over-stressed or broken members, adding the tension cables, and assuring the roof framing meets current code.
- **Post rot.** Several posts identified on the west portion of the building that suffered from rot along the bottom of the post where it meets the concrete foundation. During the site visit, it was observed that these posts are regularly inundated by spring runoff groundwater which has led to a loss of integrity of many of the posts. Some of these posts may need to be repaired or replaced.
- **Broken Truss Bottom Chord.** The bottom chord of a truss on the west portion of the building has been broken. It is recommended that this chord either be replaced or an engineering fix be found. The broken truss chord is located along the west side of the western portion of the building approximately halfway down the west wall.
- **Broken Diaphragm Bracing.** Several diaphragm braces are broken on the east end of the east portion of the building. It is assumed that these braces failed due to collision with equipment and not from normal loading. These braces must be replaced.
- **Bolted Truss Connection Member Splitting.** The second truss in from the east end of the cantilevered portion of the building contains a connection near the south support post which shows the bottom chord of the truss splitting along the upper bolt line the bolts can be seen slipping from their original position because of the splitting. It is recommended that steel plating be added, or the bottom chord of the truss be replaced in this area.

In addition to these structural repairs, the building will need the following tenant improvements prior to receiving a new certificate of occupancy:

- **Concrete repair and replacement.** The concrete slab in the east building will need to be repaired or replaced; sections along the southern portion where only footings exist will need to be broken up and a new slab poured in that area.
- **ADA-accessibility.** ADA parking spaces and bathrooms will need to be installed.
- **Electrical and lighting upgrades.** Some of the original electrical conduit and lighting fixtures in the east building may be reused, but new wiring and additional lighting fixtures will be required throughout the building along with an updated electrical plan for transformer placement and a new meter for the facility.
- **Roof repairs.** The roof will need to be assessed for leaks and repairs made.
- **Exterior paint.** The wood posts and beams will need to be cleaned and repainted.



These tasks will be addressed in four project components:

- Component 1 – Main Pavilion Renovation (14,155 sf)**
- Component 2 – West Building Renovation (5,488 sf)**
- Component 3 – Restrooms**
- Component 4 – Parking and Exterior Improvements**

COST ESTIMATE

Text

ADAPTIVE REUSE CONCEPT

Landscape Architecture firm Walker Macy (Portland, OR) developed an initial site plan for the future adaptive reuse of the planar shed following its restoration. The conceptual plan consists of an open community space in the east building that includes modular food and beverage service stations (i.e. food carts) and market booths with utility connections for public markets. The western building would become an open gallery/event space with a potential art studio and storage spaces.



Gallery and Art Space



The two wood frame buildings to the west of the community pavilion will be converted into an unconditioned gallery and art space. The large opening between the community pavilion and the gallery will be maintained to allow events to flow from one space to another. The large opening on the west elevation will be retained and will provide framed views of the sawmill and water gardens proposed to the west. Additional large openings will be created to capture views of the river, site and surrounding mountains while also providing views of the activities within. Large sliding doors will be incorporated to allow the building to be secured at night and during the winter season. The raised platform will be removed to provide universal access to all spaces. A new concrete slab on grade will be provided throughout. Storage spaces will be provided for the main pavilion and the art center. New industrial exterior cladding and roofing materials will be incorporated.

Public Restroom Facilities

A new 740 SF restroom facility will be constructed in the northwest corner of the main pavilion. It will be designed to withstand flooding events. The restrooms will be accessible from the main pavilion and the outdoor event space.



Pavilion Building Exterior

Paved pedestrian plazas will be provided at both the north and south elevations of the main pavilion structure to allow for a flexible indoor/outdoor use for a variety of events including farmers markets, performances, food festivals or large community gatherings. These areas will highlight views to mountains to the south and to future event lawn and John Day River to the north. A large lawn space to the north of the building is envisioned for events and flexible use. Vegetation around the structure and adjacent to pedestrian zones are to consist of native and climate adaptive plants for long term viability, minimal irrigation water use, and to provide a visually appealing experience. The building will be serviced at the northeast corner of the structure



by an asphalt paved driveway leading from adjacent parking lot which will provide 72 parking stalls for the public. A two-way asphalt driveway will be constructed connecting to Highway 26 at the south. This driveway will provide two-way access for public, staff, and emergency vehicles for the Pavilion, the Greenhouse and Public Works facility to the north.

Connection to Existing Greenhouse

Three of five proposed greenhouse bays are being constructed currently. The hydroponic facility will be an interpretive visitor attraction which intends to highlight the City's vision of providing fresh produce to the local community in a highly sustainable manner. The greenhouses will provide public access from the south and will be serviced at the north. A parking lot consisting of 10 stalls will be located to the east of the structure for staff and public use. A pedestrian pathway will be provided between the greenhouses and pavilion, with pedestrian and vehicular connections provided to Public Works facility to the north.

Project Constraints and Challenges

The project area is well accessed and easily redeveloped given its open character and flat terrain. The existing structure has been structurally reviewed and can be renovated into a park pavilion through upgrades. The City has begun investment on the site with the construction of new hydroponic greenhouses and utility upgrades. The following summarizes project constraints and challenges:

1) Floodplain elevation in relationship to existing pavilion

FEMA has reviewed flood conditions in the area and updated mapping of the hundred year flood extents and elevations in October 2019. The existing Planar Shed floor is below the flood elevation. Given that the shed will be converted into an open air pavilion, it will be developed to allow occasional flooding and therefore meet current building codes. The restroom component will also be developed to enable flooding with minimal impact. Challenges will include development of the building to accommodate periodic flooding without significant cost of clean-up

2) Existing condition of west buildings

The west buildings were constructed as additions to the Planar Shed and have their own structural systems. Given the potential flooding issues, the raised floor will be removed and a new floor installed at the Planar Shed elevation. Potential challenges may be found in unforeseen conditions



during demolition and redevelopment.



EXISTING SORTER SHED

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