





**Oregon State**  
**University**

**University Facilities, Infrastructure  
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The following is a preliminary design report for the siting of a proposed fire testing facility on the campus of Oregon State University (OSU).

**C.1. Description of project components**

The proposed fire testing facility will require the construction of a new, one story, approximately 1,050 square-foot building on a 1,500 square foot slab, designed to meet current state structural codes to accommodate the furnace and associated equipment. The building will likely be of concrete block construction on concrete footings and slab and will include a restroom and service plumbing, fire sprinklers and alarms, HVAC and service electrical. The building will also contain appropriate exhaust for the furnace and other safety systems. The portion of the slab not occupied by the building itself (approx. 450 square feet) will be used to place the chimney/stack and dust collector/baghouse equipment.

Appropriate land use codes for building setbacks and building materiality as determined by design guidelines shall be followed. Per OSU building development requirements, the building will be required to follow current OSU Construction Standards (<https://fa.oregonstate.edu/cpd-standards>), which require the building to be fully accessible, must include accessible toilet facilities, and appropriate space within the building to accommodate staff overseeing use of the facility. The proposed facility must include a drive lane to accommodate materials delivery to the facility which must meet current campus standards for width, turning radius, material depth to accommodate proposed truck delivery, and signage.

**C.2. EDA Investment Project Description**

The project components in this engineering report are consistent with the EDA investment priorities relevant to this application, as described in Section 3 (Proposed Solution) of the project narrative. The key elements from the narrative are reiterated below:

“Research and testing activities at OFTF will directly address Oregon’s goal of reducing future wildfire risks by informing best-practices for landowners, forest managers and public stewards of the land. Simultaneously, they will enable researchers at OSU and private-sector partners to produce data on fire safety of mass timber buildings that is vital for expansion of the industry. This data will be used by: developers, architects and structural engineers to validate design assumptions and obtain permits for mass timber building designs; mass timber manufacturers to assist with product development efforts and technical sales, and; by code officials to evaluate building code changes. Fire safety testing is vital for the permitting and delivery of the modular affordable housing that is at the core of our Coalition’s cluster strategy. Higher demand for mass timber will increase employment in sawmills and mass timber manufacturing facilities, supporting recovery and revitalization of rural timber-dependent communities that saw employment in Oregon’s wood products industry fall from over 80,000 in 1980 to 29,000 by 2016. The use of mass timber in place of more energy-intensive materials such as reinforced concrete will reduce carbon emissions in our buildings and support environmentally-sustainable development.”

### C.3. Drawings

A site location map and proposed plan of the fire testing facility are shown below.



Figure 1: OFTF Proposed Site (red) and Alternative Site (blue)

