

Executive Summary

In 2009 the Washington County Fair Complex retained Scott | Edwards Architecture to evaluate the existing condition of the Fair Complex buildings in regard to general compliance with current codes. The Owner (Washington County Fair Complex) has requested an update of the 2009 Facilities Assessment Report to document: current condition, code compliance, potential upgrades with estimate of construction cost, estimate of replacement cost, and assessment of remaining useful life. This study reviews the current general compliance of the existing facilities with the 2014 Oregon Structural Specialty Code in relation to fire/life safety, accessibility, seismic, lateral and electrical systems.

Process / Criteria:

This study is based on general visual observations conducted during a site visit October 18, 2017 and conversations and descriptions from the Fair Complex personnel and available drawings (see appendix). The size of each building listed is estimated based on aerial photos or available drawings, no field measurements were taken. Construction drawings were not available at the time of our visits and it is unlikely that original construction documents exist. Concealed problems with the construction of the buildings may exist that cannot be revealed through our review. All the buildings are assumed to be currently used for their originally constructed purpose. Occupancy Classification for the barns is based on the email from City of Hillsboro, dated March 2, 2009 (see appendix). The Occupancy Classification and Construction Type for all other buildings shown are based on descriptions from Fair personnel along with the visual inspection and will require further evaluation to be verified.

Additional Upgrades:

In addition to code compliance issues, this report contains a list of potential maintenance and facility upgrades to several of the buildings. This list is based on our observations and discussions with the Fair staff. These items are outlined in Section 5: Estimated Improvement Costs.

Applicable Codes:

2014 Oregon Structural Specialty Code
2014 Oregon Electrical Specialty Code

Facilities included in this study (See Key plan in Section 4 for locations):

Main Exhibit Hall	Dairy Barn East
Cloverleaf Building	Restroom Building
Poultry Barn	Goat Barn
4-H Barn: North	Sheep Barn
4-H Barn: South	Show Ring
Dairy Barn West	Auction Ring
Milking Parlor	Friendship Hall

Executive Summary (con't)

Conclusion:

The purpose of this investigation was to determine the condition of each building in comparison to minimum fire / life safety, accessibility, structural / seismic and electrical performance levels as prescribed by the currently adopted codes. Observations, conclusions, and recommendations contained in this report reflect our best professional judgment based on limited visual observation.

Each of the buildings reviewed have numerous issues in regards to meeting current code. In some cases, it is our opinion they represent a severe hazard to occupants.

In regard to required upgrades and improvements to meet current code, if the building's use is not changing, improvements are not required to bring it into compliance with current code unless deemed unsafe by the local jurisdiction.

The findings are as follows (See Section 4: Building Evaluations for more detailed evaluations and recommendations on each building):

Main Exhibit Hall

Based on our visual investigation, we believe this building represents a severe life safety hazard to the public based on significant structural and seismic design deficiencies of the building structure. The deficiencies include inadequate roof diaphragm for transfer of seismic loads to the exterior walls, inadequate attachment of the walls to the roof and inadequate reinforcing in the CMU walls. Interior structural columns have been removed without properly modifying the roof structure to accommodate the longer spans. The roof framing is inadequate for design level snow and wind events. In addition, the wood roof structure is significantly overstressed and does not have the FS [factor of safety] required to maintain the minimum safety standard for the building. This represents a severe hazard to occupants. We recommend no occupancy until the required structural upgrades are complete. Vertical and lateral structural upgrades to the building, complying with current code requirements, should be implemented prior to its use.

Estimated Useful Life: The Main Exhibit Hall represents a severe hazard and is not recommended to be occupied without necessary upgrades. With the necessary improvements made, we would anticipate that the building would be usable for another 20 years. However, it is our understanding that the building will be demolished when the new exposition building is completed in 2020.

Cloverleaf Building

This building is in relatively good shape with the exception of the interior unreinforced masonry portion of the building which represents a severe life safety hazard to the public based on seismic design deficiencies. Lateral structural and seismic upgrades to this building, complying with current code requirements, should be implemented prior to its occupancy.

Estimated Useful Life: With the necessary repairs and proper maintenance and upkeep, we anticipate the building should be usable for another 20 years.

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Poultry Barns & 4-H Barns

These buildings are in general non-compliance with current code requirements and vertical and lateral structural and seismic upgrades to the buildings, complying with current code requirements, should be implemented prior to their use.

Estimated Useful Life: These buildings are in fair condition with an estimated useful life of 7 years. With the necessary improvements and repairs, we would anticipate the useful life would be extended for another 30 years.

Show Ring & Auction Ring

Based on our visual investigation, we believe these buildings to be in good condition if classified as an agricultural building but in general non-compliance with current code requirements for a public use classification. If the classification changes, structural upgrades would be required to meet current seismic design requirements.

Estimated Useful Life: These buildings are in fair condition with an estimated useful life of 10 – 15 years.

Goat Barn

Based on our visual investigation, we believe this building to be in fair condition if classified as an agricultural building but in general non-compliance with current code requirements for a public use classification. If the classification changes, structural upgrades would be required to meet current seismic design requirements.

Estimated Useful Life: This building is in fair condition with an estimated useful life of 7 years. With the necessary improvements and repairs, we would anticipate the useful life would be extended for another 30 years.

Sheep Barn

Based on our visual observations, this building is in very poor condition and represents a severe hazard to occupants due to significant structural and seismic design deficiencies. This building should not be used until all necessary repairs are complete. The repairs will be extensive and will require a significant financial investment. It is our opinion that it is not worth the investment and the building should be removed and replaced.

Estimated Useful Life: This building has reached it's useful life and we recommend removal and replacement.

An alternative to consider in lieu of replacement would be to build a new concrete slab the same size as the building and rent a tent for use during the Fair. This would likely be a more cost effective option over the next 20 years.

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Dairy Barns West & East and Milking Parlor

Based on our visual investigation, we believe the Milking Parlor represents a severe life safety hazard due to significant structural and seismic design deficiencies and should be repaired prior to occupancy. Based on our visual investigation, the Dairy Barns appear to be in fair condition if classified as an agricultural building but in general non-compliance with current code requirements for a public use classification.

If the classification changes, structural upgrades would be required to meet current seismic design requirements.

Estimated Useful Life: These buildings are in fair condition with the exception of the Milking Parlor. We would estimate a useful life of 7 years. With the necessary improvements and repairs, we would anticipate the useful life would be extended for another 30 years.

Restrooms

Based on our visual investigation, we believe this building represents a severe life safety hazard to the public due to significant structural and seismic design deficiencies. Vertical and lateral structural upgrades to the building, complying with current code requirements, should be implemented prior to its use.

Estimated Useful Life: This building is in poor to fair condition with an estimated useful life of 7 years.

Friendship Hall

This building's infrastructure is in relatively good shape. Recommend immediate structural / seismic upgrade at the roof. The exterior envelope (roof) needs replacement in the near future.

Estimated Useful Life: This building is in good condition with an estimated useful life of 15 years.

Site Work

The condition of the existing driveways are in fair condition with some cracking and spalling. We recommend replacement in the next 5-10 years or add a top coat that will need to be maintained on a 5-7 year basis.