Mendocino County Museum
Building Condition Assessment Report
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Final Report September 16, 2022

COMBINED EXECUTIVE SUMMARY OF COLLECTIONS AND BUILDING ASSESSMENTS.

The CAP Program Survey of the Mendocino County Museum, Willits, California, comprises two assessments, one covering the collections and the other the institution's building. This document represents the report on the building's assessment. However, included in this Combined Executive Summary are the primary recommendations of the collection's assessor, J. Claire Dean, Dean and Associates Conservation Services, Portland Oregon, to provide context and continuity between the two reports. Details of the collections assessment can be found in J. Claire Dean's report which has been submitted separately.

Collections Assessment Primary Recommendations:

The following are the Collection Assessor's primary recommendations provided in order of priority. The body of the full report contains numerous other recommendations in addition to these priority suggestions:

- Add an additional full-time, professional collections person to the museum staff.
- Continue the general reorganizing of the collections and storage areas.
- Continue efforts to inventory and catalogue the collections.
- Continue transfer of data from analog collections records to the Past Perfect database.
- Photo document the collections.
- Work to increase the accessibility of the collections to the public and researchers.
- Gradually work to improve storage and display practices.
- Design a long-term plan for refreshing and/or replacing the existing permanent displays.
- Replace lighting throughout the facility with dimmable LED fixtures.
- Address the conservation and preservation of the Mark Walker folk-art installation adjacent to Hwy 101.

Building Assessment Primary Recommendations:

The following are the Building Assessor's primary recommendations in suggested priority order. The body of the full report, which follows, contains numerous other recommendations in addition to these priority suggestions:

- Take care of ongoing exterior maintenance issues, including:
    - Investigate and repair current roof leaks in the flat roof area above the Classroom wing.
    - Install site drainage system along the west and east walls of the Exhibits and Collections Storage buildings.
    - Repair siding and trim and repaint and/or reseal all structures.
    - Remove the curved sloping walkway to the second floor, and restore the site area landscape.

    - Improve signage, parking, and path of travel to the rear classroom entry. (Until south façade access plan is created).
- Take care of interior repair and maintenance issues, including:
    - Investigate and repair flickering lights at the track lighting above the central display area.
    - Install supply air ducts and vented returns for the currently enclosed display areas including the Dentist Office, Store, and Creamery
    - Replace and upgrade display lighting to LED in the Exhibits Building to improve energy efficiency and to enhance the presentation of the exhibits.
    - Remodel the existing restrooms in the Administration building to meet CBC accessibility requirements.
    - Install an elevator in the existing copy room to provide accessibility to the upper level. In the interim, identify a potential staff office area on the ground floor to provide accessible work space in the event of a disabled employee.
- Undertake Design and Planning studies to inform the future development and long term use of the Museum building and site, including:
    - Develop a comprehensive accessibility plan for the building and site, including paths of travel, restroom, and elevator design.
    - Investigate the feasibility of independent access and use of the Classroom Building's south entrance.
    - Develop a conservation plan for the Walker Folk Art Collection, including the feasibility/appropriateness of relocation to the Mendocino County Museum Site
    - Evaluate the Collection Storage Building's HVAC requirements and outline parameters for future replacement of the existing HVAC units.
    - Conduct further investigation into the existing wall/roof assemblies of the various buildings, and develop strategies for improving the insulation performance, converting to all electrical HVAC systems, and developing a roof mounted photovoltaic electricity generation system.

1. Introduction:

The following Building Condition Assessment Report is a summary of findings and recommendations for the structures housing the Mendocino County Museum in Willits, California. It is based on a two day site visit, meetings and discussions with Museum staff and volunteers, and review of a limited collection of past reports, documents, and drawings. In conjunction with this report on the building fabric, a parallel assessment, focused on the care of the collections is being prepared by Conservator J. Claire Dean, of Dean and Associates Conservation Services, Portland, Oregon.

The Mendocino County Museum is a museum of local history founded in 1972. It has a wide ranging collection which includes archeological artifacts, vehicles, objects, textiles, baskets, photographs, archival materials, and artwork, all relevant to Mendocino County history. In the early 2010's the museum went through a difficult period of poor management, culminating in a crisis around 2015 which included internal disorganization and leadership, loss of staff, extensive building leaks and pest infestations, and degradation of the collection. Since 2017, the museum has reorganized with new leadership, staff and volunteers. It has made great strides in returning the building to a water tight and maintainable condition, and conserving and reprioritizing the care of the collection. At the same time it has worked to re-establish the museum as a community resource through new programs and connections to the local community. The overall goal of the institution is to continue this progress of high quality museum management with a focus on increasing the value of the museum to the community. The museum is in the process of developing a strategic plan.

The assessors' site visit was conducted on May 4-5, 2022. It began with an initial meeting with museum staff and volunteers to orient the assessors to the museum facilities, review its recent history, outline goals, and objectives that the museum staff have for the institution, and identify specific issues that the assessors should look at during the site visit. Tasks identified for particular focus for this building assessment included:

- Review the history of building leaks and damage and assess the current condition of the roofs and drainage systems.
- Assess the condition of the overall building envelope.
- Review the condition and current capacity of the HVAC systems.
- Outline any current egress or code issues, including disabled access compliance.
- Suggest ideas for further programs to connect with the local community, and potentially increase income.
- Visit the Walker Folk Art Site and discuss potential conservation treatments including potential relocation to the museum.

2. Site Description:

The Mendocino County Museum sits on a flat site fronting East Commercial Street, in downtown Willits, California. It connects with other community facilities including the Library on an adjacent parcel to the west and the Recreation Grove Park across East Commercial St. The museum shares the site with the non-profit, Roots of Motive Power, who lease and manage the Engine House connected to the east end of the museum's Classroom wing.

3. **Building Description:**

The Mendocino County Museum consists of four distinct but connected structures, constructed in three separate building campaigns, described as follows:

a) Administration Building: Approximately 2800 square feet, Constructed 1972. Two story, wood framed gable roofed, slab on grade structure, with a two story porch across the front (south) façade. This structure houses the Museum's main entrance, lobby, restrooms, store, and children's room on the ground floor. The second floor houses the Museum's administrative offices, connected to the lobby by a straight run stairway. The Lobby of the Administration Building connects directly into the main exhibit galleries of the Museum.

Figure 1. Administration Building East Elevation

b) Exhibit Building: Approximately 9900 square feet. Constructed 1972, at the same time as the Administration Building. The Exhibits Building is a one-story, timber-framed, slab on grade structure, with a simple rectangular floor plan. The shallow-pitched roof structure consists of a framework of exposed glue-laminated beams with exposed tongue and groove ceiling. Mechanical and lighting systems are exposed below the ceiling in the interior spaces of the building. In addition to publicly accessible display areas, this building includes back of house areas for staff lounge and work areas, and some collection storage.

Figure 2. Administration, Exhibit, and Collections Storage Buildings, West Elevation

c) Collections Storage Building: Approximately 9800 square feet. Constructed circa 2002. The Collections Storage Building is a one story steel-framed, slab on grade structure, with metal-framed roof and wall systems attached to the primary steel frames. It is a simple rectangular plan. This structure was described by Museum staff anecdotally as having been "value engineered" in the process of its construction. It is not clear what is meant by this, but the building is certainly lightly built, as a pre-manufactured "Butler building" type of construction. The perimeter walls are metal framed with nominal batt insulation and an exterior finish of plywood with wood battens and an interior finish of gypsum board. The roof assembly originally was constructed with built up roofing, over ¾ insulation board, over plywood sheathing, with metal joists at 24" on center. Foil-faced rigid insulation boards are laid between the roof joists, and provide the interior finish throughout the open storage areas. Lighting, mechanical and electrical systems are run exposed below the insulation in the open areas of the Storage Building. Enclosed areas within the Archives suite of rooms have finished gypsum board ceilings hung from the roof structure. The Collections Storage Building houses large open areas for collections storage, a separate workshop area, an enclosed room dedicated to textiles, and a suite of enclosed rooms, for delicate collections referred to as the Archives suite. The building is built just to the north of the Exhibit Building and is seismically separated from that structure, with a seismic isolation joint along the south wall of the Collections Storage Building/north wall of the Exhibit Building. Large paired doors along this wall provide access between the two structures.

Figure 3. Collections Storage Building, North Elevation

d) Classroom Building: Approximately 2400 square feet. Constructed circa 2003. The Classroom Building, constructed at approximately the same time as the Collections Storage Building, has a very different character and level of quality. It is actually part of a larger structure which includes the Engine House, (managed separately by the Roots of Motive Power, a non-profit organization, and not included in this study). The Classrooms building is a one-story wood-framed, slab on grade structure. It connects to the eastern wall of the Exhibits Building, with a long gallery space running east, connecting to the Engine House. Three classrooms open off of the Long Gallery. The classrooms are placed on 45 degree angle to the gallery, creating a crenellated floor plan. Each of the classrooms opens also to the north connecting with the northern rear area of the site. Two of the classrooms currently are leased to Mendocino College which uses their northern doors as primary entrances. The Classrooms building also houses the Roots Library, and restrooms and utility spaces. The roof of the Classroom building is a mixture of Corten steel corrugated metal gable roofs around a central flat-roofed area. The Engine House, a larger gable roofed volume, is located at the eastern end of the Classroom Building.

Figure 4. Classroom Building, South Elevation

4. History of Building Performance Issues:

The building has a history of substantial leaks, dating from the construction of the Collections Storage Building, which have led to structural damage, development of mold, and collateral damage to the collections. Some of these problems have been addressed and appear to have been repaired, but others remain and must be corrected. These past and current issues are described below:

a) Leaks in and around the rooftop mechanical units located above the Exhibits Building. These leaks, which were extensive according to reports, appear to have been resolved through the recent re-roofing of this part of the building and replacement of the mechanical units above the Exhibits Building. No evidence of on-going leaking was observed.

b) Leaks along the seismic joint between the Exhibits Building and the Collections Storage Building. These leaks were also extensive and appear to have been caused by poorly designed waterproofing at the seismic joint connection between the structures. A series of reports from 2014-16 document the wide extent of damage to structure, sheathing, and gypsum board finishes. The high humidity from the leaks also caused mold conditions throughout the building. These conditions appear to have been resolved through removal of damaged and compromised materials, the recent re-roofing of both buildings and the reconstruction of the parapet and seismic joint between the buildings. There were no as-built drawings available to review the exact details of the re-roofing, so this conclusion is based on the observation that there does not appear to be any current or recent leaking. This line of the building should continue to be observed closely for any future leakage.

c) Related to this major leak, one assessment report from 2016, suggested that some of the water problems were due to condensation on the steel roof joists of the Collections Storage Building. This condensation might have been possible

given the difference between inside and outside temperature and humidity and the lack of substantial insulation above the roof sheathing and the lack of a vapor barrier separation to the interior. The recent re-roofing probably included more robust insulation above the roof deck, which would resolve this problem. Since there were no as-built drawings to review, it is not possible to comment on how much insulation was installed. Although this condensation does not appear to be a current problem, the exposed steel structural members should continue to be observed for any signs of condensation. Also further investigation into the actual as-built conditions of the roof assembly should be conducted to verify this condition before proceeding with any new intervention.

d) Mold in ducts serving the exhibit areas, and mold in selected areas of exhibits, caused by the roof leaks. This problem seems to have been addressed through comprehensive replacement of the ducts serving these areas, along with the new HVAC roof top units. However, the enclosed exhibits in the exhibit area, which include the dental office, general store, and creamery were observed to have a noticeable smell of mildew. These areas do not have air supply and return, and therefore have no ventilating air movement. The existing duct systems for the open exhibit areas should be extended to provide supply air into these enclosed spaces, along with installing new vent openings in the walls to allow the air to be returned directly to the larger open space. The resulting air movement should greatly improve the problem, but this should also be monitored to evaluate the success of the intervention. The Hippy Van exhibit has an air supply, but it has been closed off, because of existing mildew and moth problems inside the exhibit. This problem should be evaluated and resolved by the conservators prior to revising the air distribution system.
e) Leaks along the base of the western walls of the Exhibits and Collection Storage Buildings. Past and present leaking along this wall is caused by the existing roof drain downspouts along this wall discharging to grade, and the fact that the grade in some areas slopes back to the building. Because of the size of the roof area, there is a very large amount of water being discharged along the base of these building walls This problem has not been resolved, and is actually causing settlement at the Exhibits building at the staff lounge area. This problem needs to be resolved with an improved site drainage system, described later in this report.
f) Current leaks above the Roots Library space in the Classroom Building. This is an active leak, and it was not possible to pinpoint the exact source of the leak, (there may be several sources), but it is noted that the flat roof above this area was not replaced during the recent roof projects. This flat roof area has numerous flashing and HVAC penetrations and is near the end of its life. Recent efforts with elastomeric coatings have failed. The flat roof of the Classroom building needs to be replaced.

5. **Structural Conditions:**

The buildings of the Mendocino County Museum appear to be structurally sound. The structural settlement observed along the west wall of the Exhibits Building is almost certainly due to roof drainage water retained adjacent to the building foundation wall. The free-standing curved sloped walkway to the second floor is in poor structural condition, and should be removed rather than repaired. See further discussion later in this report for both of these issues.

Figure 5. Curved Ramp to Second Floor

6. **Site Conditions:**

Overall the site is in fair condition. Site drainage is a major issue as described below. Other issues include path of travel for accessibility. In addition, there are many opportunities for improving the building's connections to the exterior, raising its profile to the community and providing improved exterior programming.

a) Site Drainage: Roof downspouts on all sides of the building simply drain onto the grade adjacent to the building wall. This is a major problem on the west side of the building, where the grade in some areas actually slopes back toward the building. This drainage water is causing foundation settlement along the west side (northern end), and is also responsible for past water leaks into the building along this wall. At a minimum, all downspouts along the west wall should be extended to drain onto the parking lot adjacent. The preferred solution would be to install a new storm drain pipe running along the west wall, connecting to all of the downspouts and discharging the storm water either to an existing storm drain in the parking lot, or to a low point away from the building. While the western façade drainage is the most critical to attend to, drainage along all of the facades should be extended away from the building and preferably into a new perimeter drainage pipe taking the water to adjacent storm drains. This work has already been done along the south facades of

the Exhibits and Classroom Buildings, and provides a model for other building facades.

Figure 6. Drainage at West Elevation

Figure 7. Drainage Detail

b) Main South Façade: The site area facing the front of the building and facing East Commercial Street is in fair condition. Cracking and uneven surfaces along the sidewalk need to be reworked for accessibility and walking safety, and the curved sloping egress ramp to the second floor is in poor condition and should be removed. This frontage is the Museum's visual connection to the community and there are opportunities for improving its appearance and increasing the Museum's exterior visual interest. The existing banners and landscaping are a good first step in that direction. Once the curved sloped ramp is removed, the southwest corner of the site may provide a perfect setting for the relocation of the Walker folk art sculptures from their current location along Highway 101, (discussed and visited during the assessment site visit). This suggestion will need further discussion with museum staff

and evaluation of the most appropriate conservation treatments for the folk art pieces.

Figure 8. Curved ramp at southwest corner of site

Figure 9. Walker Folk Art Collection, (off site)

Related to this area of the site, is the need for discussion with appropriate tribal representatives regarding the placement of the petroglyph stone; (a well-intentioned, but perhaps ill-conceived gift to the museum); whether and where it should be relocated, and how or if it should be interpreted to the public. This discussion is an opportunity to engage with local tribal representatives about the petroglyph stone as well as other museum interpretation of local Native American history.

The front porches of the building provide opportunities for additional interpretation, as well as sheltered outdoor places for people to rest, the public at the ground floor,

and staff at the upper porch level. Recycling and garbage boxes need to be managed in an improved manner, screened from public view. Along the eastern end of the south façade of the building, new entry pathways to the entrance doors into the Long Gallery can provide an improved entry to that wing, independent of the Museum entry, (discussed further below). This eastern area of the site can become more of an entry and gathering area, perhaps with greater interpretation of the industrial artifacts on display. Because there are so many ideas, issues and possibilities for this front area of the building, a concept plan should be developed to integrate all of the ideas into one coordinated design.

c) Northern site: The north side of the building also has opportunities for outdoor activities, especially related to the three classrooms. The long path of travel for Mendocino College students using the classroom, runs all along the north side of the building from the Library parking lot. It is a long, not particularly attractive walk, with limited signage, lighting, and security. Relocating the classrooms' main entry to a shared entrance on the south side (discussed later in this report), would provide better, direct, and more attractive, accessible environment for arrival.

Figure 10. North Elevation, Rear entry to Classroom Building

7. Building Exterior Envelope: Overall, the physical fabric of the building's exterior envelope is in fair condition. There are, however, a number of pressing current maintenance issues, as well as additional ongoing maintenance which needs to be scheduled for the near future.
   a) Roof:
      - Administration Building: The existing sloped gable roof is a composition shingle roofing system, in fair condition. It has a few more years of life, but replacement should be planned in the next 5 years or so. The gutter and

downspout system are painted steel gutters, in fair condition. The gutters and fascia have a few areas of damage from ladders or other causes. They should be repaired or replaced when the building façade is painted or when the roofing is replaced.

Figure 11. Composition shingle roof at Administration Building

- Exhibits Building: The Exhibits Building roof is a shallow slope gable roof form sloping to integral gutters and drains on the west and east. The existing roof is a modified bitumen roof in very good condition, recently installed. There were no records on site of the installation details, especially as regards whether additional insulation was installed below the new roof. In the course of the roof work, the three HVAC units on this roof were also replaced. They appear to be well installed and watertight. Utility lines, electrical and gas are run across the roof, set off on blocks. In the course of the work, the north parapet wall with the Collections Storage Building, was reclad with metal siding and new flashings and copings. It is also in good condition.

Figure 12. New roof and new HVAC units at Exhibit Building Roof

Figure 13. Parapet at seismic joint between Exhibit Building and Collections Storage Building

- Collections Storage Building: This structure has a near flat (1/4”/ft.) roof, sloping to roof drains along the west and east facades. It has also been reroofed recently with the same roofing system as the Exhibits Building. The roof is in very good condition. As with the Exhibits building roof, it is not known whether or how much rigid insulation was installed under the new roof. The rooftop HVAC units above the Collections Storage Building were not replaced. It appears that they were reinstalled in their original locations with new curbs and flashing. Roof drains drain to metal downspouts which discharge onto grade along the west and east walls of the building. They are in fair condition. The parapet wall and seismic joint with the Exhibits Building, has been reclad with plywood, and flashing replaced. It appears to be functioning adequately.

Figure 14. New roof and old rooftop HVAC units at Collections Storage Building

- Classrooms Building: The Classrooms Building (and adjacent Engine House), are primarily roofed with a collection of steeply pitched gable roofs, which conceal a central flat-roofed area, which houses a collection of mechanical units. The steeply sloped roofs are roofed with corrugated Corten steel. The steel roofing itself appears to be in good condition, but penetrations through the roofs have been altered in the past and may still be potential areas of leaks. Also, roof patches were not made with weathering steel to match the existing. Future alterations should take care to match the original weathering steel.

Figure 15. Corten steel roof with patched roof areas

The central flat-roofed "well" still has its original built up roof, which is in poor condition, with a recent elastomeric coating, attempting to seal ongoing leaks. Multiple mechanical units and penetrations exist in this flat roofed area. There are current and ongoing leaks into the Roots Library

below. The exact source for these leaks is not possible to determine, but could be from any number of penetrations or roof transition areas. The roof is at the end of its life and should be replaced in a comprehensive manner, incorporating new or re-installed HVAC units, addressing penetrations and all flashing conditions to the surrounding steep metal roofs. In addition, the plywood sided parapet wall along the north edge of the flat roofed area, is in poor condition, and needs repair and replacement at the same time as the re-roofing project.

Figure 16. Classroom Building Flat-roofed "well"

Figure 17. Detail, plywood deterioration and failed past roof patching

b) Walls/Siding/Trim: The exterior walls of the Museum vary by building age and type, but all are wood or plywood surfaces, and all are in need of limited repair and painting.
    - Administration Building: The Administration Building is sided with 8" beveled wood horizontal siding. There are a number of split or damaged boards, but in general the siding is in fair condition. Flat 1x wall trim exist at

openings and corners. Trim damage was noted at a number of locations and should be repaired when the entire building is painted.

Figure 18. Detail, split siding boards at Administration Building

- Exhibits Building: The Exhibits Building is sided with plywood siding, with vertical wood battens applied at 16" centers. The plywood and trim is in serviceable condition, in need of maintenance and painting.
- Collections Storage Building: The Collections Storage Building is sided with plywood siding and wood battens to match the Exhibits building. As with that building, the walls are in need of maintenance and painting.

Figure 19. Plywood with batten siding at Exhibit and Collection Storage Buildings

- Classrooms Building: The Classroom Building is sided with vertical 1x redwood boards and redwood battens, unpainted. Flat trim and roof fascia are also all unpainted redwood. These surfaces are generally in good condition, but are weathering. In conjunction with repair and repainting the

wood surfaces of the adjacent buildings, the Classroom Building should be evaluated in greater detail, and treated with a clear sealer or other appropriate surface coating to extend the life of the wood surfaces.

Figure 20. Untreated and weathered redwood siding and trim at Classroom Building

c) Windows and Doors: The windows of the Administration and Exhibits Buildings are aluminum single-glazed windows in fair condition. The windows of the Classroom Building are anodized aluminum dual glazed windows in good condition. The doors of all buildings are in serviceable condition

8. **Building Interior:**

The interior finishes of the Museum are generally in good, well-maintained condition. A few comments are presented below:

a) The open areas of the Collections Storage Building have an unfinished (exposed foil-faced insulation). Once the question of the roof insulation and condensation has been resolved, the open storage areas would greatly benefit from fully insulating the roof cavities and installing gypsum board ceiling with improved lighting.

Figure 21. Interior Collections Storage area

b) The Tall and Long Gallery spaces of the Classroom Building are very nice spaces, but without any daylight. They would both benefit from skylighting and/or installation of a few windows. If the proposed south entry is developed, consideration should be given to additional daylight into these spaces.

Figure 22. Tall Gallery at Classroom Building

c) In the Exhibit Building, the recently-installed exposed metal ductwork was installed unpainted. It has a very sculptural appearance, but takes some focus away from the exhibits. Consideration should be given to painting the ductwork to be less distracting.

Figure 23. New ductwork at Exhibit Building

9. Building Systems:

a) HVAC Systems: Heating and cooling to the various spaces of the building are provided by a collection of roof-mounted gas-fired furnaces with electric cooling coils, and by a couple of electrical split system heat pumps, all of varying ages. There are no humidification/dehumidification capabilities in these systems, other than by regulating the air temperature. The Museum has kept HOBO Datalogger temperature and humidity readings monitored in different areas of the building. Records provided to the assessment team for 2019, 2020, and 2021 from all of the logs indicated that all of the areas being monitored have managed to stay within a temperature range of 60-70 degrees F, and a humidity range of 35-55% RH. There were no significant spikes or anomalies in any of the spaces monitored over that time. A conclusion from this is that the HVAC systems are working adequately at this time for the collection.

However, the ages and conditions of the units vary, and many of them are nearing the end of their lives. The three units located above the Exhibits Building, which serve the Exhibits and Administration Buildings, are relatively new (circa 2019). The five units located on the roof of the Collections Storage Building all date from 2003, and are nearing the end of their lives. The units located on the flat roof area of the Classrooms Building, mostly date from the original construction, except for a recently installed (2019) Daikin heat pump (which serves the Wonacott Classroom.) Existing controls are generally one control point per unit, rudimentary zoning provided by the service areas of the separate units.
As these older units, particularly those serving the Collection Storage Building are changed out, they should be re-evaluated based on the areas of the collection that they are serving. Although the existing straightforward HVAC systems appear to be serving the collection adequately, more sophisticated zoning, control and humidification systems may be desired in selected areas of particular sensitivity within the collection. This question should be discussed and developed further with

museum staff, collections conservator and a qualified mechanical engineer. In addition to the capacities of the units, further consideration should be given to the location and sizing of supply and return ductwork to assure that all spaces are appropriately ventilated.

b) Electrical Systems: A comprehensive survey of the capacity and condition of the electrical and low voltage systems are beyond the scope of this report, and the qualifications of the assessor. The following observations were made from the site visit.
    - The overall building is served by a 600 amp main service located in the southwest corner of the Administration Building. The switchgear appears to be original to the building, and may be past its useful life. There are three subpanels located in the three separate structures of the Museum; all are of recent vintage and appear to be functioning adequately:
        - 200 amp panel located off the Administration Building lobby serving the Admin and Exhibits building
        - 200 amp panel located at the entry to the Archives area serving the Collections Storage Building
        - 150 amp panel serving the Classroom Building
    - The display and general lighting of the Exhibits area are a mixture of incandescent and halogen lights, with a few replacement LED lamps. These older lighting systems are all due to be replaced with more energy efficient LED systems. In addition to energy savings, this replacement will also provide an opportunity to rethink lighting levels and intensities throughout the displays. Rather than reinstating the current overall bright level of lighting, consider a lower overall ambient lighting with stronger accent lighting at appropriate locations in the various exhibits. Implementation of this improvement should involve an exhibit designer and lighting engineer. Lighting control systems should be included and upgraded at the same time, with appropriate dimmer systems, and occupancy sensitive switching.

Figure 24. Main Gallery displays at Exhibit Building

- Lighting in the Collections Storage Building: In the open storage areas of this building, widely spaced 2x4 fluorescent lighting provides an unequal level of illumination. This lighting should be evaluated to provide improved levels of illumination, perhaps coordinated with the installation of a finish ceiling. Lighting controls should be upgraded to be motion sensitive.
- Flickering light track: The light track above the central exhibit area in the Exhibits Building has a noticeable flicker when people are walking on the roof. This issue may be a safety concern and needs further investigation into the cause and location of the loose connection.
- Nitrate negatives are stored in a freezer in the Collections Storage Building. This freezer needs a generator back up system in case of loss of power to the building. The simplest way to meet this need would be to install a transfer switch and outlet on the exterior of the building near the location of the freezer and purchase a portable generator to power the freezer during emergencies.
- Opportunities for photovoltaic energy generation: The flat roofs of the building are very well-suited for installation of photovoltaic panels. This installation will greatly reduce the museum's energy cost and carbon footprint.

c) Fire Alarm and Suppression System: There is a fully automatic fire sprinkler system and fire alarm system in the building, which appears to be in good condition.
d) Server and IT System: Not evaluated. Located in the electrical room of the Classroom Building
e) Security System: Not evaluated

10. Building Code Considerations:

a) Egress and Fire Safety: Although the original 1972 building has been added on to twice, the egress paths and number of exits are adequate from all spaces and clearly identified. The overall building has full sprinkler and fire alarm systems. No significant egress life safety hazards were observed. The following items are addressed regarding code-related issues:

- The second floor administrative offices currently have two means of egress: one from the curved exterior ramp, the other an interior straight-run stair connected directly to the building's lobby. As mentioned earlier in this report, the exterior ramp is in poor condition, has an excessively steep slope for disabled access, and has numerous other code violations for the handrail and guardrail conditions. Rather than attempt to repair and upgrade this structure, it is recommended that it be removed, and disabled access to the second floor be provided by an elevator. This would mean that the second floor would have only one means of egress. Regarding the requirement for a second means of egress, The California Building Code (CBC), allows for one

means of egress from a second floor business use providing the following conditions are met:

- Occupant load of the second floor area is less than 49.
- Overall travel distance to an exit is less than 100'.
- Building has an automatic sprinkler system.

The conditions of the existing second floor are:

- Per CBC Table 1004.5, the occupant load of the second floor is 10, (1440 sf/150 sf/occupant.
- The travel distance from the farthest corner of the second floor to the Lobby (exit passageway) is approximately 77'
- The building has an automatic sprinkler system.

Based on this rough code analysis, it appears that the existing second floor can be served by only one exit stairway connected to the building's entry lobby. Therefore, the exterior curved ramp can be removed without adding another replacement exit stair. This issue should be reviewed with the County Fire Marshall for concurrence.

- Handrail on stair to second floor should be brought up to current code with extensions top and bottom.
- The guardrail at the second floor porch is below the 42" required for guardrail height. An additional rail should be added above the top rail of the existing guardrail to bring it up to current code requirements.

b) Disabled Access:

A highly detailed survey of all access deficiencies was conducted in 2003. Other than provisions for disabled parking, signage, and path of travel to the building's entry, it appears that very few of the deficiencies that were noted have been addressed. A comprehensive survey and listing of all accessibility deficiencies is not in the scope of this study, and should be conducted. However, below is a list of major areas of non-compliance:

- Restroom Facilities at Lobby: The existing restroom facilities at the main lobby are not compliant on many levels. They do not meet door opening clearances or path of travel requirements, do not provide accessible toilet or sink facilities, etc. Although there is one family accessible toilet room in the Classroom Building, there is not signage or direction for how to get there from the lobby. In addition, the lobby is the point of arrival for all public users of the museum, and should provide equal facilities in this location for disabled visitors. These restrooms will require fairly comprehensive remodeling, reconfiguration, and new fixtures in order to comply with current code requirements. This reconfiguration will result in a couple of fewer fixtures, but the total fixture count of the building should be adequate. This solution will require long term budgeting and will take time to implement. An interim solution to mitigate and manage the problem might be to provide signage in the main lobby leading disabled visitors to the accessible family toilet room in the Classroom Building.

- Access to the Second Floor: There is no disabled access to the second floor administration areas. The existing curved sloping ramp, constructed in 1972 may have been intended to provide access at that time, but accessibility code requirements have changed dramatically since that time. It is far steeper and of a configuration that is not allowable under current code. There is no convenient or cost effective way to make this structure capable of providing disabled access to the second floor. The most efficient way to provide access to this floor will be with a Limited Use, Limited Access (LULA) elevator. This type of elevator will meet code requirements for this situation, and takes up less space than a full size access elevator. The best location for this elevator is in the Copy Room adjacent to the main lobby. The elevator would extend up through the roof of the Exhibits Building and provide access through a new opening on the north wall of the administration space. This proposed solution will require long term budgeting, and will take time to implement. An interim solution will be to provide an accessible office area for any disabled employees, probably located in the back of house areas. A disabled accessible toilet room exists in the Archives Suite in the Collections Storage Building.
- Path of travel to entrance: The sidewalk areas leading to the front porch are uneven and a source of tripping hazards.
- Path of travel to east side of front porch and to outdoor exhibits: Currently the existing outdoor industrial artifact exhibits do not have an accessible path of travel. This area needs a path of travel from the front porch of the building to the outdoor exhibits and to the south facing doors of the Classroom Building.

11. Space Utilization and Programmatic Needs:

The building complex appears to have adequate floor area to meet all of its current needs. No additional large scale development of additional space is proposed, although with land to the north, it would be possible to add onto the Collection Storage Building, if needed in the future. However, each of the areas of the building would benefit from a certain amount of reprogramming to improve and fine tune the utilization of those spaces. These alterations and improvements can be developed independently and incrementally over time or in conjunction with other projects which might be funded by the County such as building systems upgrades or code related alterations.

- Administration Building: The entry, arrival lobby and support spaces of the first floor seem to function adequately, but would benefit from some minor alterations. When the restrooms are remodeled to bring them up to CBC accessibility standards, the lobby might be refreshed with improved lighting and orientation information.

Figure 25. Lobby

In addition, the store which is relegated to a small, unsupervised space at the front of the building might be relocated to the current children's area, which seems to be underutilized. (This needs further programming discussion and evaluation with museum staff). If an opening were cut in the lobby wall, the reception desk person could also supervise, visually secure, and manage the check out for the store operation. A more robust museum store can not only add revenue to the museum, but can also be an additional connection to the community. The small front area facing the porch could serve as a children's area (although this may be too small), or as an additional area for interpretation information about the Walker Folk Art collection, (if it is relocated to the front area of the building). If it is not relocated, other similar connective and interpretive exhibits could connect the inside with the outside. If none of the above ideas seem appropriate, the area could be used as a space to connect with the County Tourism Board, orienting visitors to other cultural resources of the County.

Figure 26. Children's Area

Providing disabled accessibility to the second floor administrative level of the building requires that an elevator be installed. The existing copy room at the rear wall of the Administration Building first floor has adequate space for a limited use/limited access elevator and small lobby area to serve the elevator. The shaft would project up through the roof of the Exhibits Building and connect through the north exterior wall into the second floor of the Administration Building. In this way no space is lost from the second floor. A small copy area can be provided in the upstairs office area.

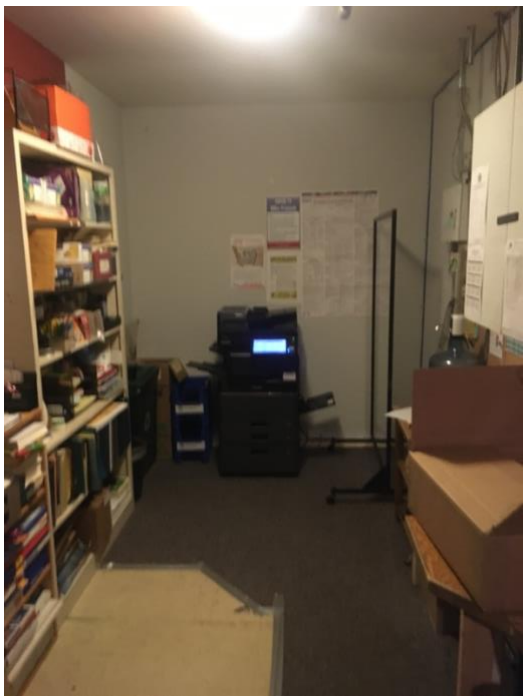

Figure 27. Copy Room, proposed elevator area

The second floor office area seems to function well with a couple of private offices and open area for additional work stations. The porch is underutilized. Especially in these Covid- constrained times, having access to exterior areas is very important. Consider furnishing the porch to allow for small informal meetings or individuals' ability to sit outside. It may be necessary to add a few electrical outlets and improved lighting appropriate to using the porch for office-related functions.

Figure 28. Second Floor office area

Figure 29. Second Floor porch

- Exhibit Building: The Exhibit Building houses all of the primary permanent exhibits of the museum. The exhibits are all engaging and well presented. On the assessment site visit, it was mentioned that visiting or changing exhibits were part of the museum's program, but it was unclear where this function occurred in the Exhibits Building. It might be useful to dedicate a selected amount of area somewhere in the space for special visiting or

changing local exhibits. This idea needs further discussion with museum staff, where it might go, how much space to allocate to this function, and how to manage staff time needed for changing exhibits. However, having changing exhibits and special events are proven ways to further engage with the community and to encourage local residents to return to the museum multiple times to see what's new.

Figure 30. Exhibit Building, Back of house work area

- Collections Storage Building: Of all of the various areas of the Museum, the Collections Storage Area seems to be a work in progress; still recovering from disastrous leaks and mold infestations, returning to best practices for collections care and storage. Therefore, it is a little hard to prescribe spatial solutions while staff work is still in development. In addition, the collections conservator will have many more specific thoughts on this area. However, a few observations about the organization and allocation of spatial use: A need for an area for collections arrival, quarantine, and processing was mentioned. It might be possible to place these functions toward the western side of the building in such a way that they could utilize the existing double doors to the exterior. Similarly, the need for an exhibit prep area might be located adjacent to the shop. There seems to be adequate space in the storage building to add these interior spaces. The larger, less sensitive objects are located throughout the general open space of the storage area in a manner that does not seem to be particularly efficient. These storage areas might be better organized and consolidated somewhat toward the north and center of the storage area. The areas which have been enclosed serving archives and more sensitive special collections seem to be very clean, well-lighted and orderly. They might all benefit from compact shelving and other organizing furniture and equipment.

Figure 31. Shop area, Collections Storage Building

- Classroom Building: The Classroom Building presents opportunities for increased public use, enhanced revenue, and improved connection to the community. Currently the Museum leases two classrooms to Mendocino College for their use, while the Museum retains use of the central classroom, The Wonacott Room, for Museum functions. The college-leased classrooms utilize the northern side doors to enter the classrooms with a long path of travel from the Library parking lot. In this way, the space is leased without not creating any security or complex user-interface issues with the Museum. This use pattern, creates some income for the Museum, while apparently functioning adequately for both parties. However, if a different type of sharing agreement were worked out with the College, and perhaps other partners, the classrooms could become a museum oriented and managed education center. The Long Gallery and Tall Gallery spaces could serve as public exhibit spaces and also as lobby and circulation spaces connecting the three classrooms, as well as the existing Roots Library. By developing one of the two existing south facing exterior doors as an entrance, and utilizing the doors to the Exhibit Building to securely close off the Exhibits Building after hours, the Classroom Building could function independently of the Museum Exhibits areas, and could significantly increase its times of use, revenue, and community connection, with very little investment or remodeling needed. The appropriateness and potential of this idea needs further discussion with museum staff.

Figure 32. Mendocino College Classroom

Figure 33. Potential entry to Classroom Building from south side of building.

12. Recommendations:

Below are a summary of recommendations, listed in order of priority. Since some of the recommendations will require additional planning and development, they are listed separately from the repair and maintenance recommendations.

a) Exterior Repair and Maintenance Recommendations:

- Investigate the as-built construction of the new roofs over the Exhibits Building and Classroom Storage Building.
- Replace the flat roof over the Classroom wing. This work should include all flashings to the existing corrugated sloped roofs, as well as repair and replacement of deteriorated plywood parapet walls. Remove and reset existing mechanical units. (note some of these units are at the end of their lives and could be replaced at the same time, depending on budget). If this roof replacement work cannot be implemented immediately, temporary measures should be implemented to locate and seal existing leaks.

- Install site drainage system along the west and east walls of the Exhibits and Collections storage buildings. Tie all downspouts into this drainage system.
- Repair siding and trim and repaint all structures, (Natural finished wood of the Classroom wing should be treated with clear sealer).
- Improve signage, parking, and path of travel to the rear classroom entry. (Until south façade access plan is created).
- Remove the curved sloping walkway to the second floor, and restore the site area landscape.
- Implement south side improvements including separate public access path to the Long Gallery entrance, south area public courtyard development, enhance interpretation of industrial artifacts.

b) Interior Repair and Maintenance Recommendations:
   - Investigate wiring to the track display fixtures above the central display area. Resolve and repair source of flickering light.
   - Install supply air ducts and vented returns for the currently enclosed display areas including the Dentist Office, Store, and Creamery. This will require a mechanical engineer to size the ducts and balance the overall HVAC air systems in the Exhibits Building.
   - Seal wall areas of the workshop space to prevent dust and contaminants from entering the Collections storage areas.
   - Remodel the existing restrooms in the Administration building to meet CBC accessibility requirements.
   - Replace and upgrade display lighting to LED in the Exhibits Building to improve energy efficiency and to enhance the presentation of the exhibits. This may require a lighting designer to size and direct lighting requirements.
   - Install an elevator in the existing copy room to provide accessibility to the upper level. In the interim, identify a potential staff office area on the ground floor to provide accessible work space in the event of a disabled employee.

c) Planning and Design Studies: In order to achieve a number of the longer term recommendations, further investigations, design studies, and budgeting will be necessary as described below;
   - Develop a comprehensive accessibility plan, integrating paths of travel, lobby restroom remodel, elevator location, and potential public entrance options for the Classroom Building. This should include conceptual budget, potential phasing, and other considerations such as electrical capacity to support the elevator.
   - Evaluate the feasibility and prepare a concept plan for the enhanced public access and use of the Classroom Building, including path of travel and entry into the Long Gallery, security issues and connections to the Exhibits Building, potential users, partnerships, community educational events, relationships for special events into the Engine House, potential income to the Museum, and conceptual budget to implement the changes.

- Conditions assessment of the Walker Folk Art collection and evaluation of their potential relocation to the Museum. This would include evaluation of their condition, potential for relocation, appropriateness and possible fit into the south entrance landscape to the Museum, as well as ancillary conceptual planning issues for this area including removal of the curved walkway, relocation and interpretation of the petroglyph stone, visitor path of travel, all resulting in a conceptual site plan budget.
- HVAC systems upgrade analysis: Anticipating the future replacement of the HVAC systems of the Collections Storage Building, conduct further discussions with staff, collections conservator, architect and mechanical engineer to coordinate the next generation of mechanical systems with the programmatic needs and development of this area of the building.
- Sustainability and Energy Conservation studies: Conduct further investigation into the existing wall/roof assemblies of the various buildings, develop strategies for improving the insulation performance, converting to all electrical HVAC systems, and for the potential development of roof mounted photovoltaic electricity generation.