

State of Nevada  
Department of Cultural Affairs  
State Library and Archives Division  
Nevada State Library and Archives  
Facility Condition Analysis

# NEVADA STATE LIBRARY AND ARCHIVES

100 North Stewart Street  
Carson City, Nevada 89701

**Site Number: 9866**  
**STATE OF NEVADA PUBLIC WORKS BOARD**  
**FACILITY CONDITION ANALYSIS**



Report Printed in March 2011

State of Nevada  
Department of Cultural Affairs  
State Library and Archives Division  
Nevada State Library and Archives  
Facility Condition Analysis

The Facility Condition Analysis Program was created under the authority found in NRS 341.201. The State Public Works Board develops this report using cost estimates based on contractor pricing which includes materials, labor, location factors and profit and overhead. The costs of project design, management, special testing and inspections, inflation and permitting fees are not included. Cost estimates are derived from the R.S. Means Cost Estimating Guide and from comparable construction costs of projects completed by SPWB project managers.

The deficiencies outlined in this report were noted from a visual survey. This report does not address routine maintenance needs. Recommended projects do not include telecommunications, furniture, window treatments, space change, program issues, or costs that could not be identified or determined from the survey and available building information. If there are buildings without projects listed, this indicates that only routine maintenance needs were found. This report considers probable facility needs for a 10 year planning cycle.

**This report is not a guarantee of funding and should not be used for budgeting purposes. This report is a planning level document for agencies and State Public Works Board to assess the needs of the Building and/or Site and to help support future requests for ADA upgrades / renovations, Capital Improvement Projects and maintenance. The final scope and estimate of any budget request should be developed by a qualified individual. Actual project costs will vary from those proposed in this report when the final scope and budget are developed.**

**Establishing a Facility Condition Needs Index (FCNI) for each building**

The FCA reports identify maintenance items and establish construction cost estimates. These costs are summarized at the end of the report and noted as construction costs per square foot. A FCNI is commonly used by facility managers to make a judgment whether to recommend whole replacement of facilities, rather than expending resources on major repairs and improvements. The FCNI is a ratio between the proposed facility upgrade costs and facility replacement costs (FRC). Those buildings with indices greater than .50 or 50% are recommended to be considered for complete replacement.

**Class Definitions**

**PRIORITY CLASS 1 - Currently Critical (Immediate to Two Years)**

Projects in this category require immediate action to return a facility to normal operation, stop accelerated deterioration, correct a fire/life safety hazard, or correct an ADA requirement.

**PRIORITY CLASS 2 - Necessary - Not Yet Critical (Two to Four Years)**

Projects in this category include conditions requiring appropriate attention to preclude predictable deterioration or potential downtime and the associated damage or higher costs if deferred further.

**PRIORITY CLASS 3 - (Four to Ten Years)**

Projects in this category include items that represent a sensible improvement to existing conditions. These items are not required for the most basic function of a facility; however, Priority 3 projects will either improve overall usability and/or reduce long-term maintenance.

Site number: 9866

## Facility Condition Needs Index Report

Index #	Building Name	Sq. Feet	Yr. Built	Survey Date	Cost to Repair: P1	Cost to Repair: P2	Cost to Repair: P3	Total Cost to Repair	Cost to Replace	FCNI
1675	NEVADA STATE LIBRARY & ARCHIVES 100 N. Stewart Street Carson City	130000	1992	1/11/2011	\$385,500	\$2,349,550	\$290,000	\$3,025,050	\$39,000,000	8%
9866	NEVADA STATE LIBRARY AND ARCHIVES SITE 100 N Stewart Street Carson City		0	1/6/2011	\$0	\$0	\$0			0%
<b>Report Totals.....:</b>		<b>130,000</b>			<b>\$385,500</b>	<b>\$2,349,550</b>	<b>\$290,000</b>	<b>\$3,025,050</b>	<b>\$39,000,000</b>	<b>8%</b>

SPWB Facility Condition Analysis

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<b>Building Name</b>	<b>Index #</b>	
NEVADA STATE LIBRARY AND ARCHIVES SITE	9866	No Current Projects
NEVADA STATE LIBRARY & ARCHIVES	1675	

**NEVADA STATE LIBRARY & ARCHIVES  
BUILDING REPORT**

The Nevada State Library and Archives is a statewide research library and provides library services for Nevada State Government and the public. The State Historical Preservation Office is also located in this facility in the older portion which dates to about 1885. It contains conference and meeting rooms, offices, library and research space, archive storage and law library, an art gallery, and storage space. The facility's HVAC system consists of hot water boilers, a chiller, cooling tower, and air handlers. At the time of the 2011 survey, the cooling tower was non-operational and was scheduled for replacement. There is a fire sprinkler and alarm system throughout and is in good operational condition. The building is mostly ADA compliant and is well maintained.

**PRIORITY CLASS 1 PROJECTS**

**Total Construction Cost for Priority 1 Projects: \$385,500**

**Currently Critical**

**Immediate to Two Years**

**Project Index #: 1675ADA1**

**Construction Cost \$12,000**

**ACCESSIBLE DRINKING FOUNTAIN INSTALLATION**

This building contains four water fountains, one on the basement floor, two on the first floor and one on the second floor. Section 4.1.3 (10) of the Americans with Disabilities Act Accessible Guidelines (ADAAG) states where one water fountain is provided on a floor it shall be accessible and where more than one is provided on a floor, 50% of those shall be accessible. This project would provide funding for the purchase and installation of three new accessible fixed high/low ADA drinking fountains. NRS 338.180, IBC - 2006, ICC/ANSI A117.1 - 2003 and the most current version of the Americans with Disabilities Act Accessible Guidelines (ADAAG) were used as a reference for this project.

**Project Index #: 1675ADA2**

**Construction Cost \$15,000**

**ADA RESTROOM UPGRADES**

The designated ADA restrooms on the first floor of the Library are not compliant. The doors do not meet space requirements, the flush handles are on the wrong side of the water closets and the pipes under the sinks are not protected. This project would provide for an automatic door opener for each door, automatic flush valves for the water closets and pipe protection. A survey by an ADA professional should be conducted to verify these findings and determine whether any additional work is required. NRS 338.180, IBC - 2006, ICC/ANSI A117.1 - 2003 and the most current version of the Americans with Disabilities Act Accessible Guidelines (ADAAG) were used as a reference for this project.

**Project Index #: 1675ADA4**

**Construction Cost \$5,000**

**ADA SIGNAGE**

Americans with Disabilities Act (ADA) regulations pertaining to building access has established building signage criteria for permanent spaces in buildings. The criteria includes: sign mounting heights and locations; character heights and proportions; raised and Braille characters/pictograms; and sign contrast and finish. The signage in this facility does not comply with this criteria. It is recommended that applicable signage be installed where required. NRS 338.180, IBC - 2006, ICC/ANSI A117.1 - 2003 and the most current version of the Americans with Disabilities Act Accessible Guidelines (ADAAG) were used as a reference for this project.

**Project Index #: 1675ENR1**

**Construction Cost \$250,000**

**COOLING TOWER REPLACEMENT**

The building is cooled by a chiller and cooling tower system. The cooling tower and its associated equipment is non-operational and should be scheduled for replacement. Rust and water freezing in the pipes has greatly reduced the efficiency of the equipment. Three incidents of the heat transfer coil freezing have occurred since the tower was installed. This project provides for disposal of the existing equipment and replacement with a new cooling tower, heat exchanger and piping including connections to utilities. This project is currently funded under CIP 09-M01 but the contract had not been executed at the time of the survey of 2011..

**FUME HOOD / VENTING MODIFICATIONS**

**Project Index #: 1675SFT4  
Construction Cost \$2,500**

The existing fume hood is non-operational and the existing venting for the microfiche machine does not work properly. This project will provide funds for the repair of the fume hood exhaust fan and microfiche venting system.

**JANITORS CLOSET REPAIRS**

**Project Index #: 1675INT8  
Construction Cost \$1,000**

The mop sink in the basement Janitors Closet is mounted adjacent to gypsum board and is showing signs of water damage. This project would provide fiberglass reinforced panels (FRP) to be installed on the walls adjacent to the mop sink. The FRP shall extend two feet beyond the edge of the sink and a minimum of 54" above the floor finish.

**LOADING DOCK REPAIR**

**Project Index #: 1675SIT1  
Construction Cost \$100,000**

The existing loading dock on the west side of the building is damaged. There is exposed rebar and severely cracked concrete including the stairs and side retaining walls. This project would provide for the removal and replacement of the damaged steel, concrete walls, sidewalk and handrails. The existing lift is not included in this estimate.

**PRIORITY CLASS 2 PROJECTS**

**Total Construction Cost for Priority 2 Projects: \$2,349,550**

**Necessary - Not Yet Critical Two to Four Years**

**FM 200 SUPPRESSION SYSTEM**

**Project Index #: 1675SFT2  
Construction Cost \$60,000**

The building has Halon extinguishing systems for the Microfilm, Archives and Rare Documents rooms. The EPA banned manufacture of Halon in 1998, and this project addresses the replacement of the system. A water-based fire suppression system is not recommended for this location due to building contents. This project will provide for the design and installation of an FM 200 or equivalent system and disposal of the existing equipment and chemicals. The existing Halon could be sold to help offset the cost of this project. The current area appears to be constructed of fire resistive components but should be field verified prior to installation of this system.

This project or a portion thereof was previously recommended in the FCA report dated 07/25/2003. It has been amended accordingly to reflect conditions observed during the most recent survey date of 01/11/2011.

**CARPET REPLACEMENT**

**Project Index #: 1675INT3  
Construction Cost \$1,050**

The carpet in the Records Management Office is showing signs of extreme wear. It is recommended that the carpet be replaced with heavy duty commercial grade carpet in the next 2-3 years.

**DOOR HARDWARE REPLACEMENT**

**Project Index #: 1675INT7  
Construction Cost \$86,500**

The interior wood doors are in good shape, but staff has had continuous problems with the hardware. The handles, tumblers and locks on the doors are damaged from age and general wear and tear and have reached the end of their useful life. This project would provide for the replacement of the hardware on 173 doors. Removal and disposal of the existing hardware is included in this estimate.

**ELECTRICAL UPGRADE, CONFERENCE ROOM**

**Project Index #: 1675ELE1  
Construction Cost \$7,000**

The electrical outlets in Conference Room A are located on a single breaker. This results in frequent tripping of the breaker when several pieces of equipment are in use. This project will provide additional capacity for branch circuits for the outlets.

This project or a portion thereof was previously recommended in the FCA report dated 07/25/2003. It has been amended accordingly to reflect conditions observed during the most recent survey date of 01/11/2011.

**Project Index #: 1675EXT2**  
**Construction Cost \$260,000**

### **EXTERIOR FINISHES**

It is important to maintain the finish, weather resistance and appearance of the building. This project would provide funding to protect the exterior of the building excluding the roof. Included in the cost are cleaning and sealing the brick masonry, caulking of the windows, flashing, fixtures and all other penetrations and removing all of the climbing vines from the walls. It is recommended that the building be sealed and caulked in the next 3-4 years and that this project be scheduled on a cyclical basis to maintain the integrity of the structure. Re-pointing of the sandstone masonry on an as needed basis is included in this estimate.

**Project Index #: 1675ENR6**  
**Construction Cost \$45,000**

### **HUMIDIFICATION SYSTEM REPLACEMENT - ARCHIVES**

The Archives/ Records Center has six individual humidifiers mounted on the wall. They are original to the building, require frequent maintenance and only two or three of them are currently operating. The humidification system should be scheduled for replacement. It is recommended to re-engineer the entire system and install a new system based on the new design. The new design may include integration with the existing HVAC system or utilizing evaporative cooling for increased energy efficiency.

This project or a portion thereof was previously recommended in the FCA report dated 07/25/2003. It has been amended accordingly to reflect conditions observed during the most recent survey date of 01/11/2011.

**Project Index #: 1675ENR4**  
**Construction Cost \$130,000**

### **LIGHTING UPGRADE**

The existing lighting fixtures are older T-8's, T-12's and sodium vapor HID's, and are not energy efficient. This project will upgrade T-8 lamps to super T-8 lamps with electronic ballasts and upgrade the HID (high intensity discharge) lamps to current standards, resulting in increased efficiency and reduced costs associated with illumination and HVAC load. Occupancy sensors will be installed in restrooms, conference rooms, individual offices and other low occupancy areas for additional savings. Any electrical wiring upgrades are not included in this estimate.

**Project Index #: 1675INT9**  
**Construction Cost \$1,100,000**

### **SHELVING REPLACEMENT**

The static shelving in the State Records Center and in the State Archives room is reaching capacity and will no longer be able meet storage demands. In order to maintain control and security of the records it is recommended to replace the existing shelving with a new compact shelving system as opposed to utilizing offsite storage facilities. The new system will store twice as much material in the same amount of space. The estimate includes removal and disposal of existing shelving and purchase and installation of new compact shelving.

**Project Index #: 1675ENR3**  
**Construction Cost \$650,000**

### **TEMPERATURE CONTROLS UPGRADE**

The existing temperature control system is obsolete and the manufacturer is no longer in business. Spare parts are no longer available, it is increasingly more difficult to maintain the equipment and it is not compatible with current computer operating systems. It is recommended to schedule replacement of the temperature control system in the next 2-3 years. This project provides for disposal of the existing equipment and replacement with a new temperature control system including connections to utilities. This project is currently funded under CIP 09-M14 but the contract had not been executed.

**Project Index #: 1675PLM1**

**Construction Cost \$10,000**

### **WATER HEATER INSTALLATION**

The building's process hot water is supplied by the two boilers. The main purpose of the boilers is to heat the conditioned spaces during cold weather. The boilers run year round to support this configuration. It would be more economical and energy efficient to install a separate water heater for the process hot water supply. This would enable the boilers to be shut down when building heat is not necessary, reducing utility costs and extending the life of the boilers.

There is a 73 gallon electric water heater in the building. The average life span of a water heater is eight to ten years.

With the passage of time and constant use, this unit is showing signs of wear and should be scheduled for replacement in the next 2-3 years. It is recommended that a new gas-fired water heater be installed for more efficient use of energy. This estimate includes: 100 feet of gas pipe, fittings, couplers, and labor for installation. Removal and disposal of the existing equipment is included in this estimate.

This project or a portion thereof was previously recommended in the FCA report dated 07/25/2003. It has been amended accordingly to reflect conditions observed during the most recent survey date of 01/11/2011.

### **PRIORITY CLASS 3 PROJECTS**

**Total Construction Cost for Priority 3 Projects: \$290,000**

**Long-Term Needs**

**Four to Ten Years**

**Project Index #: 1675ENR5**

**Construction Cost \$90,000**

### **BOILER REPLACEMENT**

There are two hot water boilers that provide heating and process hot water to the building. They are original to the building and were manufactured in 1991. The life expectancy of these units is 20 to 25 years with proper maintenance and water treatment programs. Replacement parts for performing routine and emergency maintenance are hard to find for this old equipment. The controls and mixing valves should be replaced for the same reasons. This project would provide for the removal and disposal of the existing boilers, controls and mixing valves and replacement with new equipment including all required connections to utilities and equipment. The estimate is based on a 2,000 MBH output steel, natural gas fired, packaged water tube heating boiler. The existing chemical water treatment system will need to be tested and adjusted once equipment is operational. \$2,000 is included in this estimate for testing of the chemical water treatment system.

This project or a portion thereof was previously recommended in the FCA report dated 07/25/2003. It has been amended accordingly to reflect conditions observed during the most recent survey date of 01/11/2011.

**Project Index #: 1675ENR2**

**Construction Cost \$200,000**

### **CHILLER REPLACEMENT**

The building is cooled by a chiller and cooling tower system. The chiller is original to the building and is reaching the end of its useful life. It is recommended to schedule replacement of the chiller in the next 9-10 years. This project provides for disposal of the existing unit and replacement with a new 400 ton water cooled centrifugal chiller including connections to utilities.



**BUILDING INFORMATION:**

Gross Area (square feet): 130,000  
Year Constructed: 1992  
Exterior Finish 1: 75 % Brick Masonry  
Exterior Finish 2: 25 % Sandstone Masonry  
Number of Levels (Floors): 2 Basement? Yes  
IBC Occupancy Type 1: 70 % B  
IBC Occupancy Type 2: 30 % A-3  
Construction Type: Masonry, Stucco and Glass  
IBC Construction Type: I-B  
Percent Fire Supressed: 100 %

**PROJECT CONSTRUCTION COST TOTALS SUMMARY:**

Priority Class 1:	\$385,500	Project Construction Cost per Square Foot:	\$23.27
Priority Class 2:	\$2,349,550	Total Facility Replacement Construction Cost:	\$39,000,000
Priority Class 3:	\$290,000	Facility Replacement Cost per Square Foot:	\$300
Grand Total:	\$3,025,050	FCNI:	8%

**NOTES:**

The deficiencies outlined in this report were noted from a visual survey. The costs do not represent the cost of a complete facility renovation or maintenance needs. Recommended projects do not include telecommunications, furniture, window treatment, space change, program issues, relocation, swing space, or costs that could not be identified or determined from the survey and available building information.

Individual projects and costs noted herein may be impacted by new construction materials or methods, agency projects, and pending or proposed Capital Improvement Projects (CIP).

This report was created under the authority found in NRS 341.201 by the State Public Works Board and should be utilized as a planning level document.

**REPORT DEVELOPMENT:**

State Public Works Board	515 E. Musser Street, Suite 102	(775) 684-4141 voice
Facilities Condition Analysis	Carson City, Nevada 89701-4263	(775) 684-4142 facsimile



Nevada State Library & Archives - Building #1675  
Description: Loading dock in need of rehabilitation.



Nevada State Library & Archives - Building #1675  
Description: Public entrance off of Stewart Street.



Nevada State Library & Archives - Building #1675  
Description: Exterior of the SHPO offices.



Nevada State Library & Archives - Building #1675  
Description: ADA unisex restroom, note flush handle on wrong side.



Nevada State Library & Archives - Building #1675  
Description: Non-operational fume hood.



Nevada State Library & Archives - Building #1675  
Description: ADA signage in wrong location.



Nevada State Library & Archives - Building #1675  
Description: Ammonia processing machine in need of venting modifications.



Nevada State Library & Archives - Building #1675  
Description: Lobby entrance threshold in need of replacement.



Nevada State Library & Archives - Building #1675  
Description: Non-operational cooling tower.



Nevada State Library & Archives - Building #1675  
Description: Archive storage area.