## State of Nevada National Guard Facility Condition Analysis

# **ELKO ARMORY SITE**

1375 13<sup>th</sup> Street Elko, Nevada 89801

## Site Number: 9937 STATE OF NEVADA PUBLIC WORKS DIVISION FACILITY CONDITION ANALYSIS



Report distributed in May, 2018

## State of Nevada National Guard Facility Condition Analysis

The Facility Condition Analysis Program was created under the authority found in NRS 341.128. The State Public Works Division 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 SPWD 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 the State Public Works Division 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 num	lber: 9937	<b>Facility Condition Nee</b>	ds Index I	Report		Cost to	Cost to	Cost to Cost to	Total Cost	Cost to	
Index #	<b>Building Name</b>	_	Sq. Feet	Yr. Buil	<b>Survey Date</b>		Repair: P2	Repair: P3	to Repair	Replace	FCNI
0677	HAZARDOUS WASTES	TORAGE #1	252	1990	8/23/2016	\$60,000	\$504	\$0	\$60,504	\$50,400	120%
	1375 13th St.	Elko									
0674	ARMORY		10404	1961	8/23/2016	\$156,348	\$283,080	\$105,000	\$544,428	\$4,161,600	13%
	1375 13th St.	Elko									
1490	STORAGE BUILDING		2160	1992	8/23/2016	\$5,000	\$21,600	\$0	\$26,600	\$540,000	5%
	1375 13th St.	Elko									
9937	ELKO ARMORY SITE				8/23/2016	\$30,000	\$170,895	\$0	\$200,895	\$0	0%
	1375 13th St.	Elko									
		Report Totals:	12,816	5		\$251,348	\$476,079	\$105,000	\$832,427	\$4,752,000	18%

Tuesday, May 01, 2018

# **Acronyms List**

Acronym	Definition		
Building Codes, Laws, Regulations and Guidelines			
AWWA	American Water Works Association		
IBC	International Building Code		
ICC	International Code Council		
IEBC	International Existing Building Code		
IECC	International Energy Conservation Code		
IFC	International Fire Code		
IFGC	International Fuel Gas Code		
IRC	International Residential Code		
NFPA	National Fire Protection Association		
NEC	National Electrical Code		
OSHA	Occupational Safety and Health Administration		
SAD	Standards for Accessible Design		
SMACNA	Sheet Metal and Air Conditioning Contractors		
	National Association		
UMC	Uniform Mechanical Code		
UPC	Uniform Plumbing Code		
State of Nevada			
CIP	Capital Improvement Project		
FCA	Facility Condition Analysis		
FCNI	Facility Condition Needs Index		
FRC	Facility Replacement Cost		
NAC	Nevada Administrative Code		
NDEP	Nevada Department of Environmental Protection		
NRS	Nevada Revised Statutes		
SFM	State Fire Marshal		
SHPO	State Historic Preservation Office		
SPWD	State Public Works Division		
Miscellaneous			
DDC	Direct Digital Controls		
FRP	Fiberglass Reinforced Plastic		
GFCI	Ground Fault Circuit Interrupter		
LED	Light Emitting Diode		
PRV	Pressure Regulating Valve		
TDD	Telecommunications Device for the Deaf		
VCT	Vinyl Composite Tile		

This is a generic acronym list of commonly used terms throughout the Facility Condition Analysis report.

## **SPWD Facility Condition Analysis**

## **Table of Contents**

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STORAGE BUILDING	1490
HAZARDOUS WASTE STORAGE #1	0677
ARMORY	0674

State of Nevada / Military ELKO ARMORY SITE SPWD Facility Condition Analysis - 9937

**Survey Date:** 8/23/2016

## **ELKO ARMORY SITE** BUILDING REPORT

The Elko Armory Site is located at 1375 13th Street in Elko, Nevada. There are five structures at the site which is approximately 2 acres. The site is primarily asphalt pavement, with xeriscaping at the front of the building.

PRIORITY CLASS 1 PROJECTS

\$30,000 **Total Construction Cost for Priority 1 Projects:** 

**Currently Critical** 

Immediate to Two Years

ADA ACCESSIBLE PATH OF TRAVEL

**Project Index #:** 9937ADA1 **Construction Cost** \$30,000

Site number: 9937

The ADA provides for accessibility to sites and services for people with physical limitations. A concrete parking area, passenger loading area and path of travel to the office are necessary to comply with ADA accessibility requirements. This project would provide for a concrete van accessible ADA parking and loading space and concrete walkway to the existing sidewalk. This will require regrading, placement of P.C. concrete, signage, striping and any other necessary upgrades. The 2012 IBC, ICC/ANSI A117.1 - 2009, NRS 338.180 and the most current version of the ADA Standards for Accessible Design were used as references for this project. 750 square feet of concrete was used for this estimate. It is recommended that this project coincide with the paving project.

This project or a portion thereof was previously recommended in the FCA report dated 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

PRIORITY CLASS 2 PROJECTS

Total Construction Cost for Priority 2 Projects: \$170.895

**Necessary - Not Yet Critical** 

Two to Four Years

EXTERIOR LIGHTING

Project Index #: 9937SEC1 **Construction Cost** \$80,000

The Elko NNG site has minimal site lighting, which affects the ability to mobilize during hours of darkness and has security implications. This project would provide funding for the purchase and installation of ten LED light fixtures, 30 foot tall light poles including 30" diameter raised concrete bases, electrical trenching, conduit, wiring and connections to existing utilities.

This project or a portion thereof was previously recommended in the FCA report dated 08/19/2002 and 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

#### SLURRY SEAL ASPHALT PAVING

Project Index #: 9937SIT2 **Construction Cost** \$90,895

It is important to maintain the asphalt concrete paving on the site. This project would provide for minor crack filling and slurry sealing of the paving site wide. Striping is included in this estimate. This project should be scheduled on a 5 year cyclical basis to maintain the integrity of the paving and prevent premature failure. 72,716 square feet of asphalt area was used to generate this estimate.

This project or a portion thereof was previously recommended in the FCA report dated 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

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## PROJECT CONSTRUCTION COST TOTALS SUMMARY:

\$200,895

Priority Class 1: \$30,000 Priority Class 2: \$170,895 Priority Class 3: \$0

**Grand Total:** 

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State of Nevada / Military STORAGE BUILDING

SPWD Facility Condition Analysis - 1490

**Survey Date:** 8/23/2016

## STORAGE BUILDING BUILDING REPORT

The Storage Building is an uninsulated engineered steel building located on the south side of the site. This facility is used as general storage by National Guard personnel. There is electrical power and lights but the building is lacking a HVAC system.

PRIORITY CLASS 1 PROJECTS

**Total Construction Cost for Priority 1 Projects:** 

\$5,000

**Currently Critical** 

**Immediate to Two Years** 

EXTERIOR LANDING INSTALLATION

Project Index #: 1490SFT2 **Construction Cost** \$5,000

Site number: 9937

There are two out-swinging exterior doors on the building, which swing out over a step that does not have a landing. This does not comply with 2012 IBC Section 1008.1, which requires a proper landing and for the landing to not be more than 1/2" below the threshold. This project would provide for the installation of compliant landings.

PRIORITY CLASS 2 PROJECTS

**Total Construction Cost for Priority 2 Projects:** \$21,600

**Necessary - Not Yet Critical** 

Two to Four Years

1490EXT1 Project Index #: **Construction Cost** \$4,320

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 is the caulking, sealing of the flashing, fixtures and all other penetrations. It is recommended that the building be caulked and sealed in the next 2-3 years and that this project be scheduled on a cyclical basis to maintain the integrity of the structure. This project or a portion thereof was previously recommended in the FCA report dated 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

LIGHTING UPGRADE

**Project Index #:** 1490ELE2 **Construction Cost** \$17,280

The existing lighting fixtures are the older fluorescent type, and are not energy efficient. This project will upgrade fixtures to higher efficiency units with a longer life cycle. 5,000K LED lamps, without the ballasts, are suggested, and new tombstones (if needed). Occupancy sensors will be installed in low occupancy areas for additional savings. Any electrical wiring upgrades are not included in this estimate.

This project or a portion thereof was previously recommended in the FCA report dated 08/19/2002 and 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

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### **BUILDING INFORMATION:**

Gross Area (square feet): 2,160

Year Constructed: 1992

Exterior Finish 1: 100 % Metal Siding

Exterior Finish 2: %

Number of Levels (Floors): 1 Basement? No

IBC Occupancy Type 1: 100 % S-2 IBC Occupancy Type 2: %

Construction Type: Engineered Steel Building

IBC Construction Type: III-A
Percent Fire Suppressed: 0 %

### PROJECT CONSTRUCTION COST TOTALS SUMMARY:

\$12.31	<b>Project Construction Cost per Square Foot:</b>	\$5,000	Priority Class 1:
\$540,000	<b>Total Facility Replacement Construction Cost:</b>	\$21,600	<b>Priority Class 2:</b>
\$250	Facility Replacement Cost per Square Foot:	\$0	<b>Priority Class 3:</b>
5%	FCNI:	\$26,600	Grand Total:

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Site number: 9937 State of Nevada / Military

**HAZARDOUS WASTE STORAGE #1** SPWD Facility Condition Analysis - 0677

**Survey Date:** 8/23/2016

## **HAZARDOUS WASTE STORAGE #1 BUILDING REPORT**

The Hazardous Waste Storage #1 is an engineered steel building resting on a concrete foundation which has spill containment. The interior walls are covered in a fire resistant blanket.

PRIORITY CLASS 1 PROJECTS **Total Construction Cost for Priority 1 Projects:** \$60,000

**Immediate to Two Years Currently Critical** 

Project Index #: 0677SFT1 **BATTERY STORAGE Construction Cost** \$25,000

Section 608 of the 2012 IFC explains the requirements for stationary storage of battery systems. This project will provide funding for the proper way to store, charge and/or use batteries indoors. IFC Section 608 states batteries shall have safety caps, spill control and neutralization, mechanical ventilation and/or cabinet ventilation, supervision over the mechanical ventilation, building or cabinet signage, seismically braced, and a smoke alarm. This project would provide funding for the requirement of Section 608 of the 2012 IFC.

**Project Index #:** 0677SFT2 HAZARDOUS MATERIALS STORAGE **Construction Cost** 

The Hazardous Waste Storage #1 building contains hazardous materials (i.e. gasoline, herbicides and pesticides). Per IFC 2012 Hazardous Materials, and in accordance with NFPA; where hazardous materials are stored, dispensed or used, Section 5003 states the proper use and application is to have mechanical exhaust and ventilation, and hazard identification signs shall be installed. Refer to Section 5004 and 5005 for the proper use and setup. It is important to comply with all applicable codes. This project would provide for all requirements in IFC 2012, to include Section 105 permits and inspections through the State Fire Marshal's Office and the State Public Works Division.

\$30,000

**Project Index #:** 0677SFT3 SAFETY CABINETS **Construction Cost** \$5,000

The building contains many different paints, stains, gasoline, herbicides, pesticides and other hazardous products located on open shelves and on the floor. This does not meet OSHA standards or IFC for hazardous materials containment. This project would provide a self-closing hazardous storage container in the building and install placards on the building exterior in accordance with OSHA 1910.106 (d) and IFC Chapter 57 Section 5704.3.2.1.3.

PRIORITY CLASS 2 PROJECTS **Total Construction Cost for Priority 2 Projects:** \$504

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

0677EXT1 **Project Index #:** EXTERIOR FINISHES **Construction Cost** \$504

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 is the caulking, sealing of the flashing, fixtures and all other penetrations. It is recommended that the building be caulked and sealed in the next 2-3 years and that this project be scheduled on a cyclical basis to maintain the integrity of the structure. This project or a portion thereof was previously recommended in the FCA report dated 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

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### **BUILDING INFORMATION:**

Gross Area (square feet): 252

Year Constructed: 1990

Exterior Finish 1: 100 % Metal Siding

Exterior Finish 2: %

Number of Levels (Floors): 1 Basement? No

IBC Occupancy Type 1: 100 % S-1 IBC Occupancy Type 2: %

Construction Type: Engineered Steel Building

IBC Construction Type: II-B

Percent Fire Suppressed: 0 %

### PROJECT CONSTRUCTION COST TOTALS SUMMARY:

\$240.10	<b>Project Construction Cost per Square Foot:</b>	\$60,000	<b>Priority Class 1:</b>
\$50,000	<b>Total Facility Replacement Construction Cost:</b>	\$504	<b>Priority Class 2:</b>
\$200	Facility Replacement Cost per Square Foot:	\$0	<b>Priority Class 3:</b>
121%	FCNI:	\$60,504	Grand Total:

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State of Nevada / Military Site number: 9937

ARMORY

SPWD Facility Condition Analysis - 0674

**Survey Date:** 8/23/2016

# ARMORY BUILDING REPORT

The Armory building is a concrete masonry unit structure on a slab on grade foundation with a low slope single-ply roofing system. The building contains support offices, restrooms and a large gymnasium area for physical activities. It sits on approximately two acres of fenced land with a parking area at the main entrance to the facility.

PRIORITY CLASS 1 PROJECTS Total Construction Cost for Priority 1 Projects: \$156,348

Currently Critical Immediate to Two Years

#### ADA SIDEWALK REPLACEMENT

The concrete sidewalks around the building are in need of replacement. The sidewalks have cracks and are spalling. This project would provide for the removal and replacement of the concrete sidewalks. 1500 SF of 4" thick concrete was used for this estimate. The 2012 IBC, ICC/ANSI A117.1 - 2009, NRS 338.180 and the most current version of the ADA Standards for Accessible Design were used as references for this project.

Project Index #:

**Construction Cost** 

0674ADA1

0674SFT2

\$4,000

\$22,500

# MECHANICAL ROOM HEATER INSTALLATION Project Index #: 0674HVA1 Construction Cost \$5,000

The mechanical room does not have any heating or automatic louvers. The extreme weather has caused the pipes to freeze and burst in the past and resulted in portions of the plumbing system to be shut down. This project would provide for the room to be fitted with a natural gas fired unit heater as well as automatic wall mounted louvers to regulate the temperature in the room.

This project or a portion thereof was previously recommended in the FCA report dated 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

# ROOF REPLACEMENT Project Index #: 0674EXT2 Construction Cost \$124,848

The roof on this building was in fair condition at the time of the survey. The statewide roofing program has set the useful life of an average roof at 20 years. The roof warranty expires at the end of the same time frame. The temperature fluctuations throughout the year, consistent wind which blows sand and dirt on to the roof membrane, and constant exposure to the sun are contributing factors to wear and deterioration. The current roofing system was installed in 1997. It is recommended that this building be re-roofed in the next 1-2 years to be consistent with the roofing program and the end of the warranty period.

This project or a portion thereof was previously recommended in the FCA report dated 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

# SEISMIC GAS SHUT-OFF VALVE INSTALLATION Project Index #: Construction Cost

This project would provide for the installation of a seismic gas shut-off valve on the main gas service piping just prior to entering the building. This estimate is based on the manufacturer Pacific Seismic Products or approved equal, equipped with the optional Model MS remote monitoring switch (to be interfaced with the direct digital control system and/or with an audible alarm). The gas piping immediately adjacent to the seismic gas valve shall be secured to the building utilizing unistrut channel brace.

This project or a portion thereof was previously recommended in the FCA report dated 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

PRIORITY CLASS 2 PROJECTS Total Construction Cost for Priority 2 Projects: \$283,080

Necessary - Not Yet Critical Two to Four Years

# Project Index #: 0674CUL1 DISHWASHER REPLACEMENT Construction Cost \$9,000

The commercial dishwasher in the kitchen appears to be original to the building and is troublesome and problematic to operate. Considering the age of the dishwasher and the evolving needs of the facility it is recommended to be replaced. This project provides for removal and disposal of the existing dishwasher and replacement with new unit.

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Project Index #: 0674EXT1
EXTERIOR FINISHES Construction Cost \$104,040

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 is painting the concrete masonry unit walls and caulking of the windows, flashing, fixtures and all other penetrations. It is recommended that the building be painted and caulked in the next 2-3 years and that this project be scheduled on a cyclical basis to maintain the integrity of the structure.

This project or a portion thereof was previously recommended in the FCA report dated 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

INTERIOR FINISHES

Project Index #: 0674INT1 Construction Cost \$104,040

It is recommended to paint the interior walls and ceilings at least once in the next 2-3 years and that this project be scheduled on a cyclical basis to maintain the integrity of the structure. Prior to painting, all surfaces should be repaired and prepped. An epoxy-based paint should be utilized in wet areas for durability.

This project or a portion thereof was previously recommended in the FCA report dated 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

VCT REPLACEMENT

Project Index #: 0674INT3 Construction Cost \$58,500

The VCT flooring in the building is damaged and reaching the end of its useful life. It is recommended that the VCT flooring be replaced. This project would provide for removal and disposal of the VCT and installation of new 12x12 VCT with a 6" base.

This project or a portion thereof was previously recommended in the FCA report dated 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

WATER HEATER REPLACEMENT

Project Index #: 0674PLM1 Construction Cost \$7,500

The average life span of a water heater is eight to ten years. The existing 250 gallon gas water heater in the building has reached the end of its expected life and is not energy efficient. This project would provide for the removal and disposal of the old water heater and installation of a new 250 gallon gas water heater.

This project or a portion thereof was previously recommended in the FCA report dated 11/08/2007. It has been amended accordingly to reflect conditions observed during the most recent survey date of 08/23/2016.

PRIORITY CLASS 3 PROJECTS

Total Construction Cost for Priority 3 Projects: \$105,000

Long-Term Needs

Four to Ten Years

HVAC EQUIPMENT REPLACEMENT

Project Index #: 0674HVA2 Construction Cost \$75,000

The five HVAC roof top units were installed in 2006. They are not energy efficient and will soon reach the end of their expected and useful life. This project would provide for installation of five new HVAC packaged units and cleaning of the existing duct work and grilles. This project includes removal and disposal of the existing equipment and all required connections to utilities.

WINDOW REPLACEMENT

Project Index #: 0674EXT3
Construction Cost \$30,000

The windows are original, single pane construction in metal frames. These older windows are drafty and not energy efficient. This project recommends replacing the windows with dual pane, higher efficiency units. This estimate is for the replacement of 20 units. Removal and disposal of the existing windows is included in this estimate.

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#### **BUILDING INFORMATION:**

Gross Area (square feet): 10,404

Year Constructed: 1961

Exterior Finish 1: 90 % Painted CMU

Exterior Finish 2: 10 % Glazing

Number of Levels (Floors): 1 Basement? No

IBC Occupancy Type 1: 60 % B IBC Occupancy Type 2: 40 % A-3

Construction Type: Concrete Masonry Units, Wood and Steel

IBC Construction Type: V-N
Percent Fire Suppressed: 100 %

#### PROJECT CONSTRUCTION COST TOTALS SUMMARY:

\$52.33 **Priority Class 1:** \$156,348 **Project Construction Cost per Square Foot:** \$4,162,000 **Priority Class 2: Total Facility Replacement Construction Cost:** \$283,080 \$400 **Priority Class 3:** \$105,000 Facility Replacement Cost per Square Foot: 13% **FCNI: Grand Total:** \$544,428

#### **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 341.128 by the State Public Works Division and should be utilized as a planning level document.

#### REPORT DEVELOPMENT:

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

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Elko Armory - Site #9937 Description: Slurry seal asphalt paving needed.



Elko Armory - Site #9937 Description: Exterior lighting needed.



Elko Armory - Site #9937 Description: ADA parking stall striping needed.



Armory – Building #0674 Description: Window replacement needed.



Hazardous Waste Storage #1 - Building #0677 Description: Safety Cabinets needed.



Storage Building - Building #1490
Description: Exterior landing installation needed.



Storage Building - Building #1490 Description: View of interior finishes.