

# EAGLE CREEK RESORT ASSESSMENT

FOR

## ILLINOIS DEPARTMENT OF NATURAL RESOURCES

DNR PROJECT 3-15-006

May 9, 2016



PREPARED BY:

**GLOBETROTTERS ENGINEERING CORP.**  
CHICAGO, ILLINOIS

# **SECTION 1**

## **GENERAL**

## PROJECT DIRECTORY

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**IDNR Project #3-15-006**  
**EAGLE CREEK RESORT ASSESSMENT**  
**EAGLE CREEK STATE PARK**

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## EAGLE CREEK ASSESSMENT REPORT

### Assessment Scope of Work:

The following document (3-15-006) is the scope of work design services used by GEC, and prepared by IDNR for the Eagle Creek Assessment Report that follows.

# EAGLE CREEK RESORT ASSESSMENT SCOPE OF WORK

**FILE# 3-15-006**

## **PURPOSE / HISTORY:**

The Illinois Department of Natural Resources (IDNR) requires professional services of an architectural/engineering (A/E) firm to provide a thorough assessment of the Eagle Creek Resort building (including Eagle's Landing) and supporting infrastructure.

The Eagle Creek Resort and Conference Center complex and Golf Course is located on the shores of Lake Shelbyville, four miles southeast of Findlay, Illinois, in Shelby County. The 25-year old facility has been closed for the past 5 years. Mold has been detected in the resort building and remediation efforts were only partially completed.

## **SCOPE OF WORK:**

The assessment shall evaluate the existing facilities, structures, amenities, site conditions and utilities as specified for consideration as to necessary repair, upgrade or replacement. This assessment shall contain a detailed estimation of probable cost.

The scope of services shall include, but are not limited to:

### Resort (including Eagle's Landing)

- Evaluate condition of exposed foundations.
- Evaluate condition of floor structural members.
- Evaluate condition of resort flooring.
- Evaluate condition of exterior walls, fascia, trim, doors & hardware and windows.
- Evaluate condition of interior walls.
- Evaluate condition of roof sheathing, shingles, gutters, downspouts and flat roof.
- Evaluate condition of steps and railings.
- Evaluate condition of elevators.
- Evaluate operational and physical condition of all plumbing fixtures, mechanical and electrical devices, hot water tanks, all food service equipment, including coolers, refrigerators and freezers, and commercial exhaust hoods.
- Evaluate utility lines; water supply (hot and cold) and sanitary.
- Evaluate if existing conditions comply with applicable accessibility code.
- Assess adequacy of lighting and power.
- Examine loads at panels, including feeders back to main panel, considering possible new power demands (i.e. Internet, Wi-Fi)
- Assess fire alarm systems compliance and evaluate notification requirements.

### Swimming Facilities

- Evaluate physical and operational condition of all equipment in dressing locker areas.
- Evaluate plumbing backflow prevention and drainage requirements.

### Swimming Pools (indoor & outdoor)

- Evaluate physical condition of pool deck.
- Evaluate physical condition of security measures (fencing and gates).
- Evaluate physical condition of pool shell.
- Evaluate physical and operational condition of pumps and filter systems.

### Site

- Evaluate physical condition of all concrete sidewalks.
- Evaluate physical condition of all curbs and curb cuts.
- Evaluate if current conditions comply with applicable accessibility code.
- Evaluate site grading with regard to erosion and drainage deterioration.
- Evaluate conditions of landscaping beds and mini golf.

### Site Utilities

- Evaluate fire suppression systems.
- Evaluate gas service.
- Evaluate electrical service.
- Identify existing land-line phone service and evaluate options for upgrades.
- Evaluate sewer line from Resort building to Berry Pond lift station. Consider the addition of man holes in order to scope the line.

### **REPORTS:**

The contracted A/E shall provide a final draft report (10 copies). This comprehensive document shall be submitted in six (6) months. This final draft will be reviewed and commented upon by IDNR staff. After resolution of the IDNR comments, the A/E shall issue a final report.

The final report shall be a bound document (20 copies) and in electronic format. The A/E shall provide a CD labeled with the park site location, project title, file number and software utilized. (IDNR uses Microsoft Excel in the development of its spreadsheets, Microsoft Word in the development of its word processing and AutoCAD in the development of its drawings.)

**CONTRACT:**

- The term of the resulting contract shall be for nine months.

*There are no MWE/FBE/VBE goals applied to the A/E team, but participation is encouraged.*



## **SECTION 2**

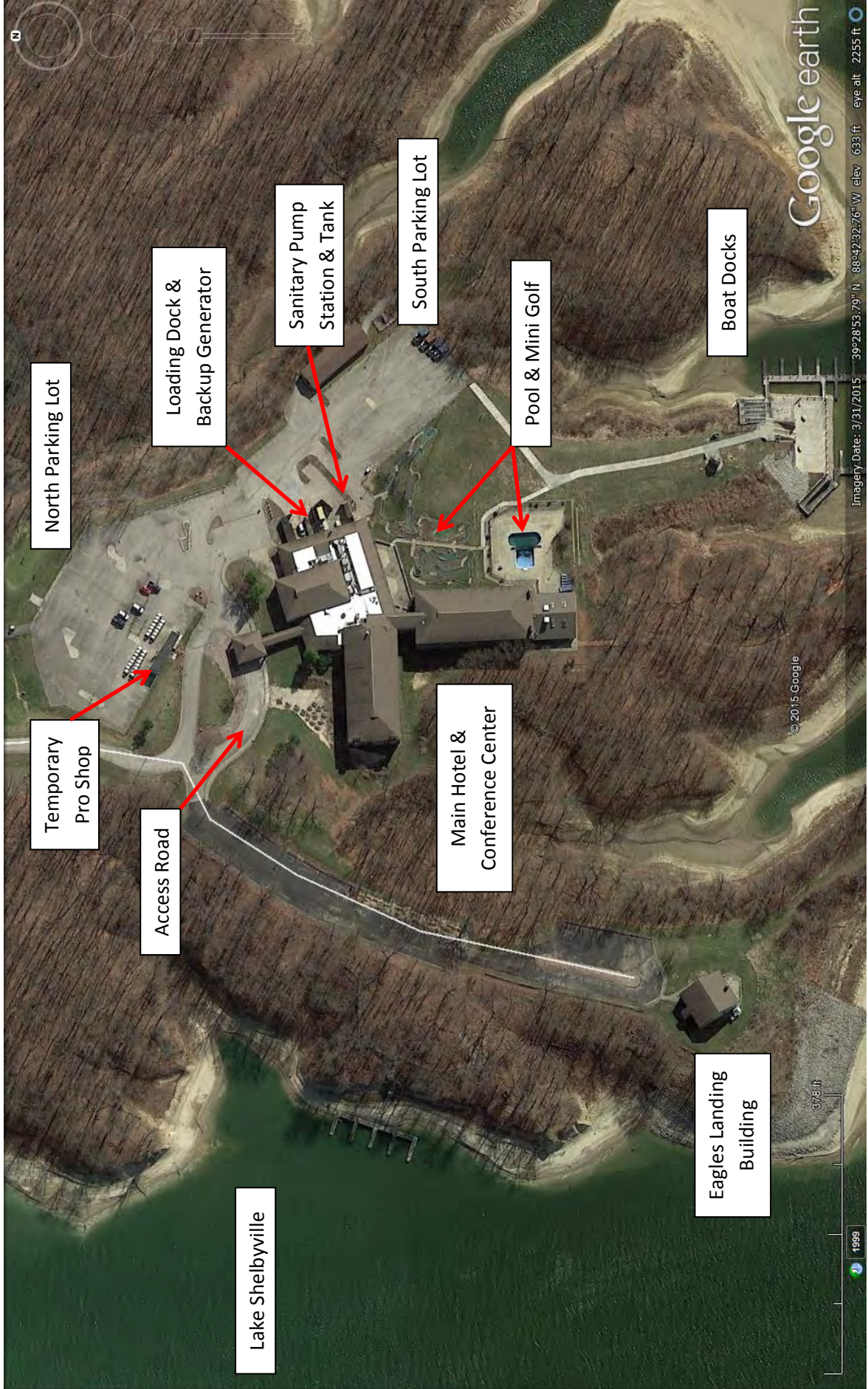
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Eagle Creek Resort Assessment

## **SECTION 4**

### **EXECUTIVE SUMMARY**

## EXECUTIVE SUMMARY

The Eagle Creek Resort and Conference Center complex and Golf Course is located on the shores of Lake Shelbyville as part of Eagle Creek State Park, four miles southeast of Findlay, Illinois, in Shelby County. The 27-year-old facility has been closed for business for the past 6+ years. The hotel was constructed in 1989, and has been closed since 2009.

At the request of the Illinois Department of Natural Resources (IDNR), Globetrotters Engineering Corporation, Inc. (GEC) was contracted to perform a walk-through assessment of the physical conditions of the surrounding site, building envelope, and related systems and components of the Eagle Creek Resort complex. The assessment was performed to document observed deficient conditions, and develop repair / upgrade or replacement recommendations and associated costs. The Property Condition Report consists of the following sections:

- Main Resort Building and Eagle's Landing Building:
  - Building Envelope (Exterior and Interior)
  - Structure (where exposed)
  - Roof
  - Windows and Doors
  - Interior Finishes
  - Mechanical Systems
  - Plumbing Systems
  - Electrical / Fire Alarm / Emergency Generator / Telephone / Cable / PA / Lighting Systems / Security
  - Fire Protection Systems / Life Safety Systems
  - Kitchen Support Area and Equipment
  - Passenger Elevators
  - ADA / Accessibility Compliance (General Overview)
  - Equipment and Furniture
  - Environmental
- Swimming Facilities and Swimming Pools:
  - Locker Rooms
  - Pool Shell and Deck
  - Security
  - Pumps and Filters
- General Site and Grounds:
  - Site / Civil
  - Concrete Sidewalks
  - Pavement and Curbs
  - Erosion and Drainage
  - Landscaping
  - Mini-Golf Area
- Site Utilities:
  - General Site Drainage and Stormwater Systems
  - Sanitary Sewers and Pump Stations



## GENERAL DESCRIPTION

The Eagle Creek Resort property consists of a 138-room hotel, conference center and adjoining amenities, and two separate parking lots on the northeast and west sides of the complex with a vehicle drop-off at the main hotel building entrance on the north. Total parking capacity is approximately 300 cars. On the south side of the property are an outdoor mini-golf course and an outdoor pool as a later addition. There is a concrete walkway leading from the hotel to a boat marina south of the property on Lake Shelbyville.

At the south end of the west parking lot is a separate resort building consisting of 8 hotel rooms and a shared community space called the Eagle's Landing.

Currently the northeast parking lot is used for patrons of the golf course and a temporary pro shop has been set up as support for the golf course. Golf Course use is active.

The main hotel/conference center complex is a three-story wood framed and steel structure on a concrete slab-on-grade foundation. The primary building entrance and hotel reception area is on the second level at the north end of the building. There are a total of 138 hotel rooms divided into two (2) separate wings (east and south - Wing A and Wing B) on each of the three stories. In addition to hotel functions there is one (1) large banquet room off the main entry lobby. This room can be divided into three (3) separate rooms. There are two (2) connected restaurant spaces also off the main entry lobby which share kitchen and storage spaces with the banquet rooms. There is a smaller café space and retail shop on the first level both of which exit to an exterior patio and recreation area on the south side of the building. Additionally, the first level contains office and conference spaces, as well as men's and women's public locker and toilet rooms serving outdoor recreational functions.

At the far end of the south first floor hotel room wing is an indoor pool room with adjoining exercise space, locker and toilet rooms, and saunas. The indoor pool exits directly to the adjacent outdoor pool recreation area.

Mechanical and electrical spaces are throughout and primarily located on the first level, as well as laundry, maintenance rooms and kitchen support areas. Administration spaces for the resort are located on the second level adjacent to the lobby reception.

At the request of the Illinois Department of Natural Resources (IDNR), Globetrotters Engineering Corporation, Inc. (GEC) has performed an on-site walk-through condition assessment study of the conditions of the Eagle Creek Resort. The assessment was performed to document observed conditions with emphasis upon noting deficient, deteriorated, environmental and potential life safety conditions. The walk-throughs were performed on May 4 and 5, 2015, and February 22, 2016.

The Report Guidelines are based upon the ASTM – Standard Guide for Property Condition Assessments.

## PURPOSE

The purpose of this assessment is to evaluate and obtain a general understanding of the physical condition of the property, identify items requiring rehabilitation and develop order of magnitude cost estimates to restore the buildings and site to as close to original working condition. The intent is to provide information for condition assessment, recommend general items of reconstruction / rehabilitation and estimate construction costs that would be required to restore the facility to its former use.

The report describes items, components, and systems which may be observed visually during the walk-through survey without: intrusion, relocation or removal of materials, exploratory probing, use of special protective clothing, or use of any equipment (hand tools, meters of any kind, telescope instruments, ladders, lighting devices, etc.).

A suggested repair may be preliminary and does not preclude alternate methods or schemes that may be more appropriate to remedy the deficiency or that may be more appropriate with IDNR's requirements.

## EXCLUSIONS AND LIMITATIONS

This assessment report focuses on identifying and documenting building materials and systems condition that are deficient, deteriorated or generally not meeting functional, safety or environmental building standards relating to safe occupancy and use. The findings of this report are based on representative visual observations of the site as well as discussions with IDNR staff and review of documents provided by IDNR. Unless specifically listed in the report testing of materials, environmental hazards or equipment were not performed. Prior observation indicates mold is likely present throughout.

In accordance with the contract scope of work, no destructive testing was performed, no portion of walls or ceilings were removed, thus, concealed deficiencies were not identified. The assessment excluded the golf course and related facilities, camp sites, dock facilities, non-concrete walking paths and bridges. (Reference "EXCLUSIONS" in Appendix.)

## EXCLUSIONS AND ASSUMPTIONS

The following items were excluded from the scope of work for this Assessment Report.

**The condition assessment was conducted in 2015 and early 2016, and the physical condition observed at those time periods are noted and described in the report. It is very probable that building and site conditions will continue to deteriorate moving forward. The estimated costs provided are reflective of the conditions observed during this period of time.**

1. Pest Reporting

Evidence of pests was observed during the walk-throughs of the building, but no formal investigation was performed.

2. Measurements and Counts

Field measurements and counts were not taken to verify any drawings or information provided for reference or otherwise confirm dimensions.

3. Subterranean Condition Reporting

Reporting on subterranean conditions, systems and elements was not undertaken, except as noted for specific utilities, such as sanitary service, gas, electric.

4. Floor Structural Members

Structural floor and roof members were inspected where exposed to view. The floor structural framing (primarily wood) is concealed but evidence of conditions such as floor sagging, excessive floor bounce or depressions in the floor were noted where observed. The nature of these conditions are not known.

5. Engineering Calculations

Engineering calculations were not performed or prepared to verify capacities or limitations.

6. Extent of Observations

No inspection or investigation behind walls, inside plenums or any other generally inaccessible or concealed areas was performed and observed. The Assessment of the building façade was conducted from grade level, and from vantage points inside the building.

7. Acoustical and Insulating Evaluation

Evaluation of acoustical characteristics and insulating characteristics were not analyzed for any building material, component, system, or space.

8. Environmental Assessment

Tests regarding environmental issues, including water quality, toxic and hazardous materials, and mold were not performed, or are a part of this report

(Mold has been detected in the resort building and remediation efforts were partially completed.)

9. Golf Course

All facilities, site and site access associated with the golf course are not part of this Assessment Report.

10. Site

- Limited to those portions surrounding the resort complex.
- Camp sites and camp site utilities are not included in the report.
- Boat docking facilities are not included in the report.

## DOCUMENTATION REVIEWED

Existing documents provided by IDNR included:

- Plans of the original hotel complex prepared by FGM Architects Inc., dated April 1988 for Shelby County, Illinois. (Excludes the outdoor pool area and mini-golf area.)



## EVALUATION APPROACH

In order to identify and prioritize problems, and project the required budgets needed to address these issues, the following evaluation was prepared.

Generally, most all conditions observed fell into the Class 1 and 2 condition.

### Problem Classification

**Class 1 - Critical** - A condition that requires extensive action to repair, reconstruct or replace in order to restore the system to an original functional condition. All current code required modifications, life safety and ADA requirements are considered critical.

**Class 2 - Recommended** - A condition that while not required to meet code requirements would improve functioning of the facility, bring the facility to meet current expectations of a hotel or conference center and improve aesthetics.

### Implementation Plan

The improvements and corrections recommended in this report are presented at the conceptual level. Cost estimates presented are opinions of probable cost and budgetary, and should be used for planning purposes only.

### Structure of this Report

The following technical assessment sections of this report represent each of the disciplines involved. The sections are listed in the Table of Contents:

The walk-through survey was conducted on May 4 and 5, 2015, and February 22, 2016. Below is the list of attendees

Architectural	Bruce Weber, RA; Michael Hall, RA; Jack Svaicer, AIA
Mechanical / Plumbing	Hynek Dvorak, PE
Electrical	Luis Ferrer, PE; Daniel Curley
Site / Civil	David Handwerk, PE
IDNR	Jim Elzinga and Richard Glazebrook

## SUMMARY OF FINDINGS AND RECOMMENDATIONS

The following tables summarize the general findings of the assessment and investigation, along with recommendations and estimate of probable costs for remodeling.

## SUMMARY

### Overview

The Eagle Creek hotel location is prime and set within a beautiful park environment. An excellent hotel destination and able to take advantage of all that Eagle Creek State Park and Lake Shelbyville can offer to guests. The surrounding hardscape and landscape is in fair to good condition throughout, and easily restored where it is not.

Access to and from the hotel facility is easy once you know where it is located. The lack of adequate roadside signage from I-57 to this destination is in need of upgrading with informational signage.

Vehicle parking numbers appear to be sufficient by today's standards, but would require updates to meet ADA compliance and direct access path to the hotel entry.

No environmental issues were apparent regarding the exterior other than the outdoor pool feature.

### Hotel Facility

Numerous cost and environmental issues are evident within the complex of hotel buildings and can be broken down into several key categories at issue.

The task to document and report on the condition and deficiencies of the property observed is to establish as a base line what efforts would need to be undertaken to re-furbish the facility to its original programmed use. In other words, remodeling the facility, as close as is feasibly possible to retain its original function, appearance and purpose as viable commercial real estate.

Three major issues have become apparent upon completion of the walk through survey. These include addressing the environmental / abatement issues (Interior), meeting current energy compliance codes (2015 International Energy Conservation Code) and complying with current ADA / Accessibility codes.

### Environmental

As the report indicates, numerous areas within the hotel facility, namely the kitchen area, banquet rooms and hotel wings have been observed with mold, excessive waste and general clean-up issues, as well as the deteriorating effects of water infiltration in many locations. All of these areas and more (public toilets and pools, for example) will require complete abatement efforts complying closely with State and Federal guidelines. The resulting abatement will require existing building materials be removed and reconstructed due to environmental contamination.

Note that abatement efforts were conducted in 2011, but not completed. Unfortunately, with the facility sitting idle for many years, initial cleanup incomplete, roof (water) leaks and lack of ventilation have had significant adverse effects upon all areas of the facility.

## **Energy Code Compliance**

One of the greater issues for a remodeling strategy is meeting current building energy codes (2015 Illinois Energy Conservation Code). The extensive renovation task will require current R-value ratings be measured against new standards for energy efficiency for the building envelope; roof areas, wall areas and equipment. The increased insulation may require adjustments in construction for parapets, wall thicknesses, parapet heights at flat roof areas and access to roof framing within attic spaces.

Mechanical, plumbing and other building systems and controls replacement will be required to meet new energy conservation codes as well.

The existing windows and sliding glass doors would require replacement so as to meet current energy performance design guidelines, and can contribute to the overall energy performance rating of this facility resulting from other new building improvements.

## **ADA Code Compliance**

ADA compliance will have the greatest impact upon the required number of hotel guest rooms, path of access to the hotel from the parking lots, replacement passenger elevators and access to all public spaces. Plumbing codes may require additional fixtures in public toilet rooms if not compliant. Pool areas will require specialized equipment. Fire alarm and life safety systems will need to be updated and in compliance with ADA guidelines. Current configuration of designated hotel guestrooms does not meet ADA guidelines.

## **Building Envelope**

As the report indicates the exterior envelope is comprised primarily of wood paneling and face brick. The face brick is stable and fair to good condition, relatively water tight, and should be monitored for further mortar joint deterioration and eventually re-pointed.

The exterior wall wood siding is a T 111 wood panel common for exterior application. It is showing signs of deterioration in many locations due to water infiltration as is various wood trim. Both systems will require repair and replacement where severely water damaged. Both will require a weather resistant stain or paint finish in keeping with aesthetics.

Windows are in fair condition and of older window technology and efficiency. The sliding glass doors will require new weather seals.

The asphalt roof shingles are in need of replacement throughout as are flashings and terminations, which have resulted in water infiltration in many areas. The visible roof patching was poorly executed and has contributed to the problems. The flat roof areas will require replacement membranes.

## CIVIL / SITE

The Civil / Site work includes the main access road / drop off area to the hotel, two parking lots, the hotel loading dock area, sidewalks, general site drainage and landscape, mini golf area, the Eagles Landing site area and the sanitary sewer system (pump stations and force mains). These are summarized below.

### Access Road

The access road is the paved roadway at the entrance to the hotel. This road is an asphalt paved surface with asphalt curbs. In general, the pavement was in fair to good condition. Cracks in the pavement should be sealed to prolong pavement life. The area beneath the canopy at the hotel entrance had significant pavement deterioration that requires replacement. The asphalt curbs were in fair condition with some cracking that will require sealing. Some displaced sections of curb need replacement. Signage at the access road area and generally throughout the site was faded and needs replacement.

There appears to be two water lines running at the surface crossing the exit road to Pro Shop trailer. While this may be adequate for temporary use, a more permanent buried water line should be provided. Sanitary service to the Pro Shop Trailer was not investigated.

### North and South Parking Lot Areas

There are two primary asphalt parking lots in the hotel area. Alligator cracks were apparent throughout the parking lots with some minor rutting. Parking lots should be repaved. The asphalt curbs in the parking lot area were cracked and in fair to poor condition requiring crack repair and replacement in some areas. Parking space striping was significantly faded to non-existent. A complete restriping of both parking lots will be required.

The only marked ADA parking spots were located at the north parking lot adjacent to the temporary Pro Shop. These were signed, but somewhat distant from the main hotel parking lot. Consideration should be given to additional, closer ADA spaces. The path of travel from the ADA spaces to the hotel entrance should be evaluated in detail to ensure compliance with grade requirements. The drawings indicate a total of approximately 220 regular parking spaces plus 10 handicapped accessible spaces in the north and south parking lots. There are an additional 81 spaces along the roadway leading towards the Eagle's Landing Building. A total of 8 handicapped accessible spaces would be required per current ADA standards.

There is a relatively steep, unprotected drop off adjacent to pavement located north of cart building. A guardrail should be added.

A fuel tank located near the hotel entrance area in the south parking lot does not appear to have spill protection. No bollards protecting tank from vehicle impact. Relocate to an area with adequate protection. **This existing condition needs immediate attention.**

### Backup Generator and Loading Dock Area

The backup generator and loading dock area is located in rear of hotel building. This area includes electrical feed and equipment boxes, large backup generator, diesel fuel, feeds, loading dock, trash container and grease bin. The pavement is in fair condition and may require

some resealing to prolong pavement life. The wooden loading dock and wood fencing in this area are in poor condition and should be replaced.

One grated stormwater catch basin adjacent to transformer receives surface drainage. The basin is clogged with debris. No storm sewers are shown on the drawings. Additional sewer investigations are beyond the scope of this study. The drainage for this area should be verified and routed appropriately.

There is a grease tank located in the loading zone area. The tank is leaking fluid into a grated stormwater slot drain. The tank should be removed and the spill cleaned up. If restaurant facilities are rebuilt, a new grease tank should be provided.

### **Sidewalks and Concrete Patios**

Sidewalks are typically concrete with some asphalt adjacent to the main access road. The condition of the sidewalks is generally good with some cracking. Walkways are generally even. Asphalt sidewalks need sealing of cracks typically and minor spot repairs. Slopes need to be verified for ADA compliance.

The patio area pavement adjacent to the former pro shop area of the hotel is in fair condition, but appears to be functional. The outdoor pool concrete patio appears to be in good condition. Some sealing of joints and cracks may be required.

### **General Site Drainage / Erosion / Landscape**

The general site drainage appears good due to the overall slope of the site and soil conditions. No significant evidence of ponding or erosion was identified in the vicinity of the buildings or parking areas. Existing stormwater drainage features were in generally good condition. Overall landscape was in fair condition. One major disturbed area was seen adjacent to the hotel with no vegetation. It appeared that this area was disturbed by construction. This area needs restoration. The brick retaining wall / perimeter fence around the pool area appears in good condition.

### **Mini Golf Area**

The mini golf area is in poor to fair condition. The putting surface carpeting is in very poor condition. There is minimal landscaping or trees in the area. Slopes do not appear to be ADA compliant.

### **Eagle's Landing Area**

This is a smaller conference center with eight separate guestrooms located near the shoreline south of the main hotel area. General sidewalk and concrete patio are in fair to good condition. Railing around patio area is in need of repair. The adjacent parking lot pavement is in fair to good condition. Asphalt curbs are in generally good condition. There are piles of soil and construction debris of unknown origin stockpiled on the parking area.



## **Sanitary Sewer System**

Based on the plans for the site, sanitary waste from the hotel is pumped via a force main to the Berry Pond pump station (near hole 4 on the golf course) and then on to the wastewater treatment plant. Detailed information on the pumps was not included on the drawings provided for the site. A 60-foot long, 6-foot diameter holding tank is located adjacent to the pump station. The drawings indicate that the force main is 2-1/2-inch diameter PVC pipe. The force main is approximately 4,855 feet long.

The pump stations and force mains were tested in March 2016. One pump was missing from each station. Both stations were improperly wired. Recommend complete replacement of the mechanical and electrical components. The force mains were found to be in good condition.

## **ELECTRICAL**

### **Findings and Recommendations**

Aging electrical components are potential hazards in any distribution system. After the expected useful life, the failure of electrical equipment is unpredictable. Electrical equipment failures have been the most common cause of fires in buildings and facilities. All electrical equipment ages at different rates based upon the quality of equipment, maintenance, and its environment

Moisture and dust are sworn enemies of all electrical equipment. Many types of electrical equipment are installed outdoors or in unconditioned spaces where there is no control of temperature and humidity. Even in the case of equipment installed in weather-conditioned spaces, there is a gradual but definite deterioration. Eventually, the equipment will reach a condition in which its reliability becomes questionable.

The following recommendations are based on the review of the existing facility and the overall condition and expected useful life of the electrical equipment and associated power distribution system.

### **Emergency Generator**

The existing 750kW emergency generator has sat idle for several years. However, due its age and overall appearance, the generator manufacturer's service organization should do a complete evaluation of the generator and associated equipment, and determine what repairs will be required to return the generator to safe operating condition. Assuming the cost for refurbishment is less than the cost of a new unit, the generator should be repaired and placed back into service.

### **Utility Power Transformers (By Utility)**

The electric utility power company is responsible for the transformer. It is recommended that the utility:

- Inspects the condition of the transformer.
- Provide new secondary service cables from the transformer to the automatic transfer switch.
- Inspect the utility meters for building, fire pump, and outdoor power pumping station to ensure that they are operating properly.

### **Existing Cable Trench**

The existing metal cable trench is in disrepair and promotes water infiltration into the electrical gear. In addition, cable insulation degradation may be accelerated if the cables are immersed in water. The trench should be replaced and conduits with appropriate seals should be provided to provide required protection for gear and cables.

Provide new feeders going to existing 2500 Amperes Switchboard. Conduit seals are to be provided to prevent condensation from entering electrical equipment.

Provide new service feeders from the generator and the utility transformer.

## **Automatic Transfer Switch (ATS)**

The existing 2500 Amp ATS currently has water sitting in the bottom of its enclosure. Based on the fact that the enclosure has been subject to water infiltration and the enclosure has to be temporarily removed to install new conduits. It is recommended that the ATS be replaced during renovation.

Main Service Switchboard – 2500 Amperes, 277/480 volts, 3 phase, 4 wires, 60 hertz:

The base of the switchboard shows signs of corrosion due to water infiltration and or flooding. In addition, the switchboard and circuit breakers are approaching their useful life. Therefore, it is recommended that the switchboard be replaced.

## **Panelboards and Branch Circuit Wiring**

The main concern with panelboard operation is the overall effectiveness of the overcurrent protection (i.e. circuit breakers and fuses) mounted in the panelboards. Most manufacturers state that the expected useful life for circuit breakers to be about 20 years, assuming they are well maintained. Beyond 20 years it is prudent to replace all molded case breakers of 100A and lower rating. For larger breakers, it may be worthwhile to perform tests to determine satisfactory operation and develop a replacement program.

The condition of the existing panelboards varies based on their location. The recommendations for the various panelboards and branch wiring are as follows:

- All Existing Panelboards for Hotel Rooms, 120/208 volts and 277/480 volts
  - Panelboards are in good condition. Infrared test of the bus should be conducted and all connections shall be tightened per manufacturer's recommendations.
  - All the circuit breakers should be replaced.
- Kitchen Panelboards
  - Provide new panelboards servicing the kitchen equipment. Panelboard construction should be suitable for kitchen area.
- Swimming Pool Panel Boards
  - Provide new panelboards serving indoor and outdoor swimming pools. Panelboard construction shall be rated for NEMA 3R or NEMA 4X based on location and environment.
- The existing branch wiring is not run in conduit. The branch wiring consists of non-metallic-sheathed cable that runs from the ceiling or wall outlets back to a local lighting panelboard. Since all the guestroom walls are currently open, all existing branch wiring should be high-pot tested to confirm the integrity of the cable, and re-used where applicable. Cables tested and found to be bad need to be replaced with new.

## **Lighting Fixtures**

Lighting fixtures throughout the facility are in disrepair and do not meet current energy code. Provide new LED lighting fixtures throughout the facility, including exterior lights. In addition, provide lighting controls in order to optimize overall efficiency.

Provide new light poles and bollards with LED fixtures. Provide new conduit and wiring were needed to ensure continuity of circuits.

### **Wiring Devices**

Existing switches and outlets are beyond their useful life. In addition, new code requirements call for tamper proof receptacles to be installed in all dwelling areas of the hotel. Provide new code compliant receptacles, switches and cover plates throughout the facility.

### **Fire Alarm System**

Existing fire alarm system has not been serviced for several years, it is not an addressable system and devices have been in an environment that would make their operation questionable. A new code compliant system should be provided.

### **Cable TV System**

The existing system is in a state of disrepair and the electronics are missing. Available service providers should be investigated. Provide a new system including electronics, patch panels, splitters and TV outlets in all required areas. The use of existing cables should be investigated and reused, if possible.

### **Telephone System**

The existing telephone system is in disrepair and has reached its useful life. A new voice over IP system should be installed. Provide new wiring and telephone outlets in all hotel rooms, offices, specialty rooms, etc.

### **Public Address (PA) System**

The existing PA system is in disrepair and has reached its useful life. Provide a complete new system including headend equipment, indoor speakers, outdoor speakers and all associated wiring.

### **Security System**

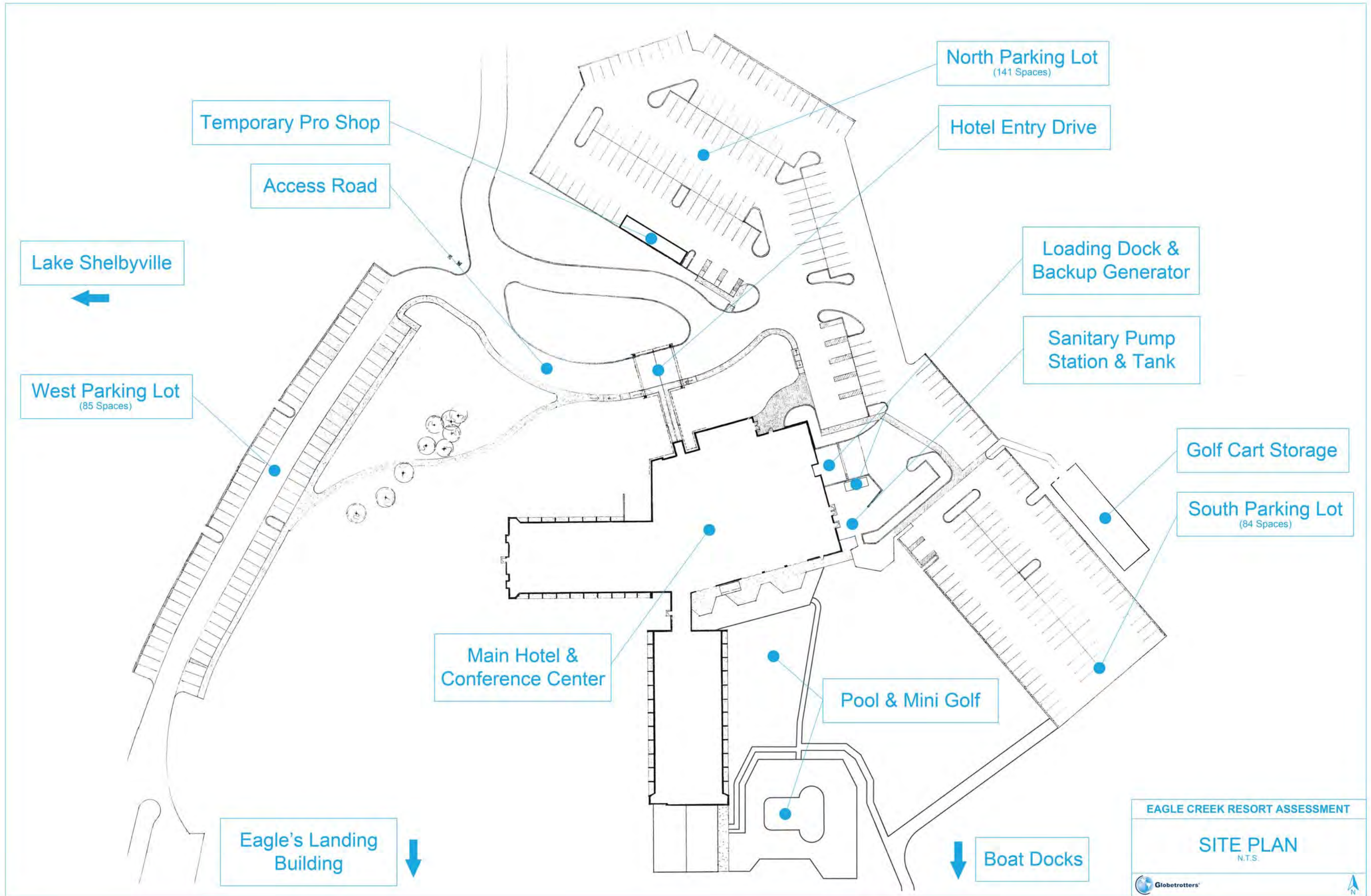
Existing security system does not meet current security requirements for a facility of this kind. Provide a new security system including:

- Video monitor and digital recorder or web based system with cloud storage
- Cameras (pan, tilt or fix) with low light in the entry and exit, perimeter of the buildings and swimming pools to provide adequate security for guests.
- Guest room and public door access control.

## **SECTION 5**

### **REFERENCE DRAWINGS**





Temporary Pro Shop

Access Road

Lake Shelbyville  
←

West Parking Lot  
(85 Spaces)

North Parking Lot  
(141 Spaces)

Hotel Entry Drive

Loading Dock &  
Backup Generator

Sanitary Pump  
Station & Tank

Golf Cart Storage

South Parking Lot  
(84 Spaces)

Main Hotel &  
Conference Center

Pool & Mini Golf

Eagle's Landing  
Building  
↓

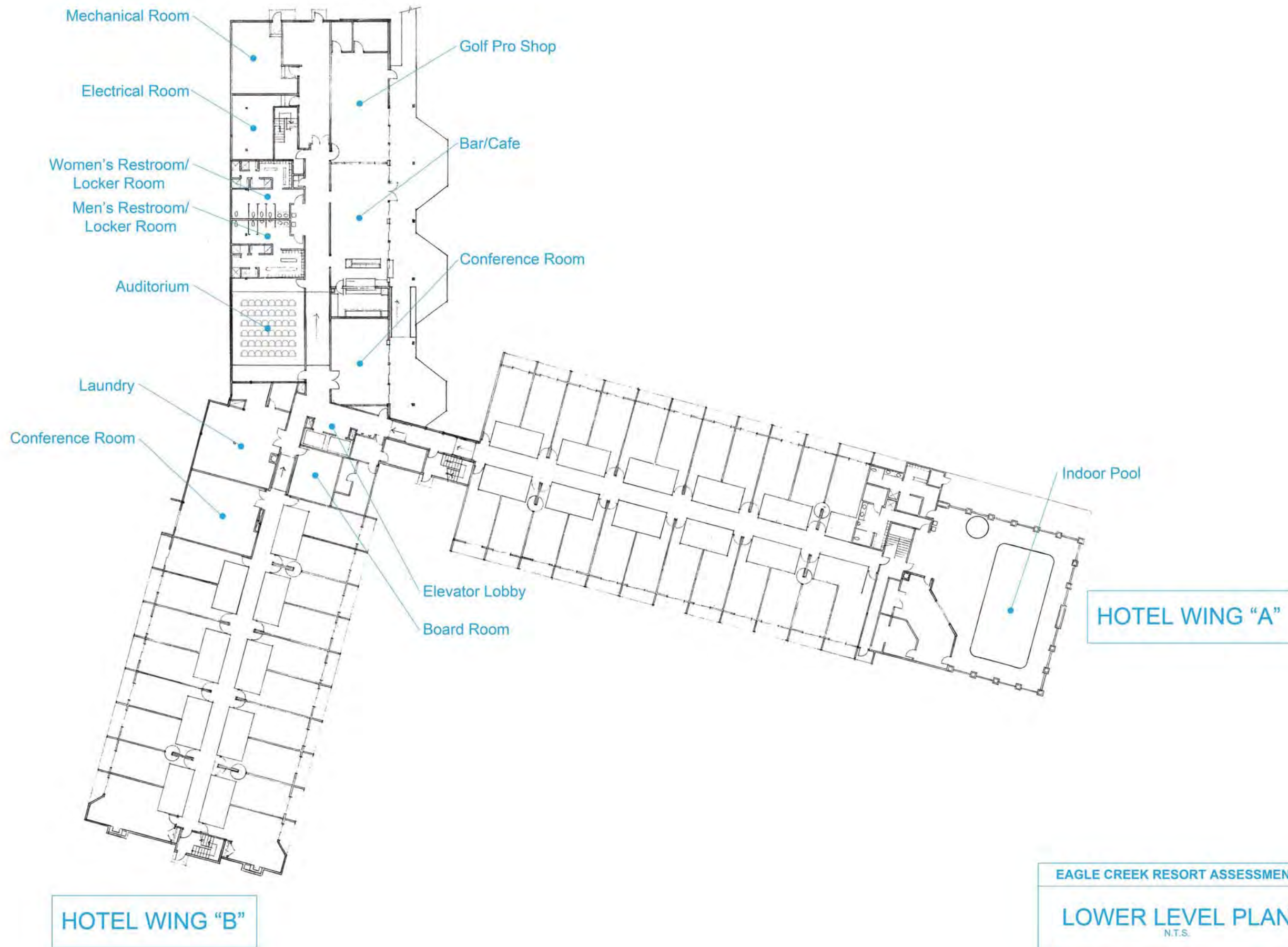
↓  
Boat Docks

EAGLE CREEK RESORT ASSESSMENT

SITE PLAN  
N.T.S.



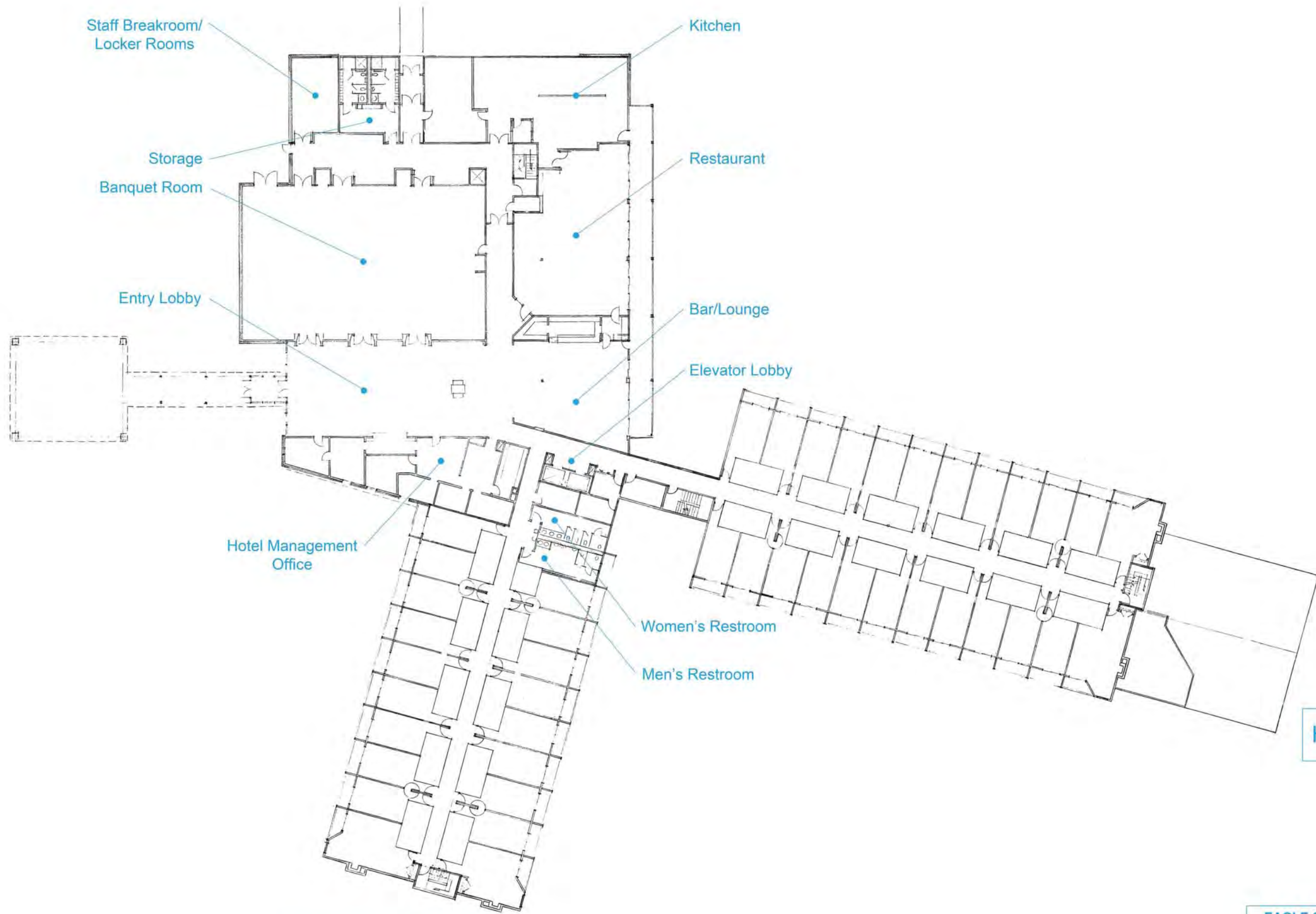




HOTEL WING "B"

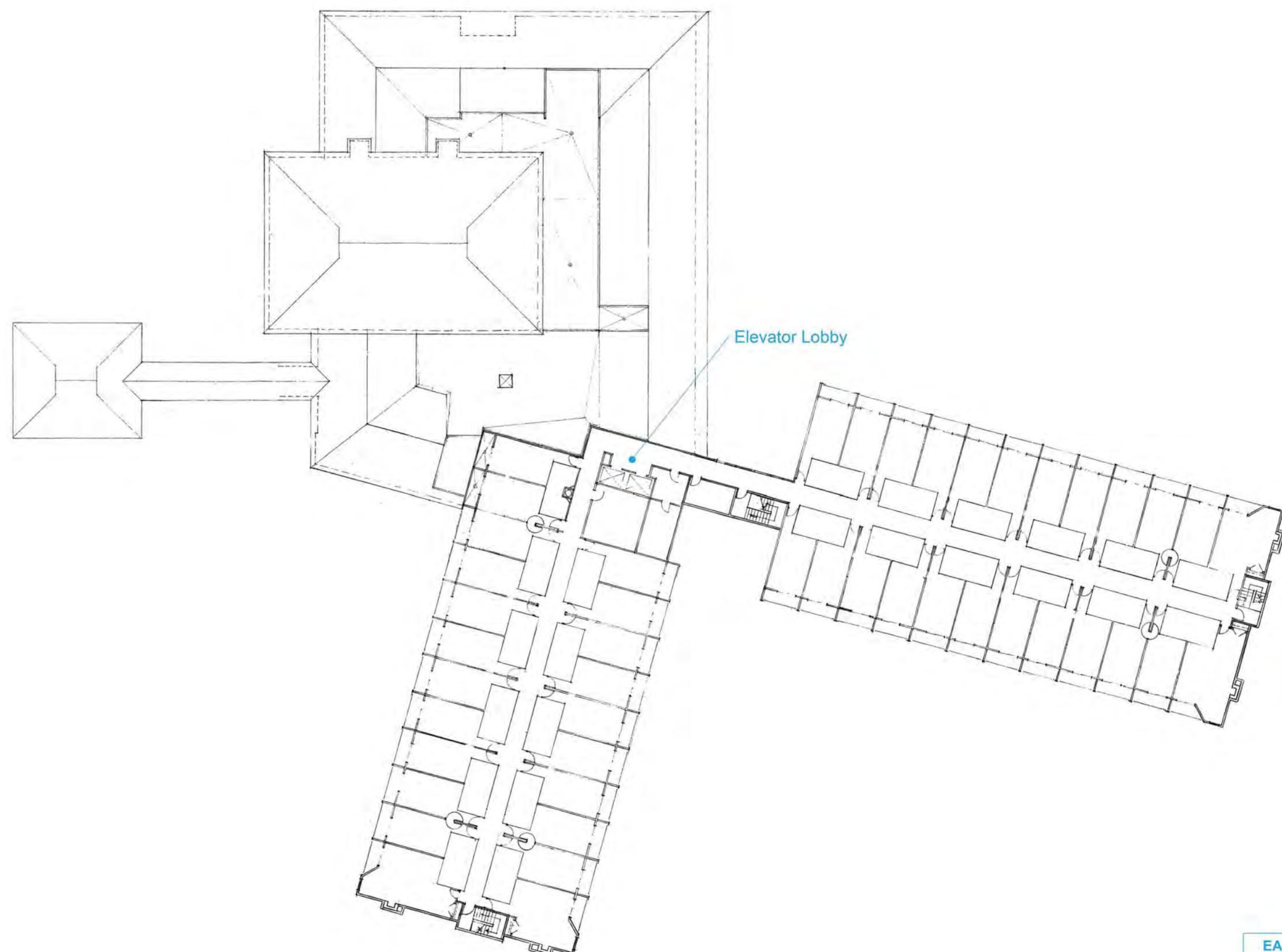
HOTEL WING "A"





HOTEL WING "A"

HOTEL WING "B"



Elevator Lobby

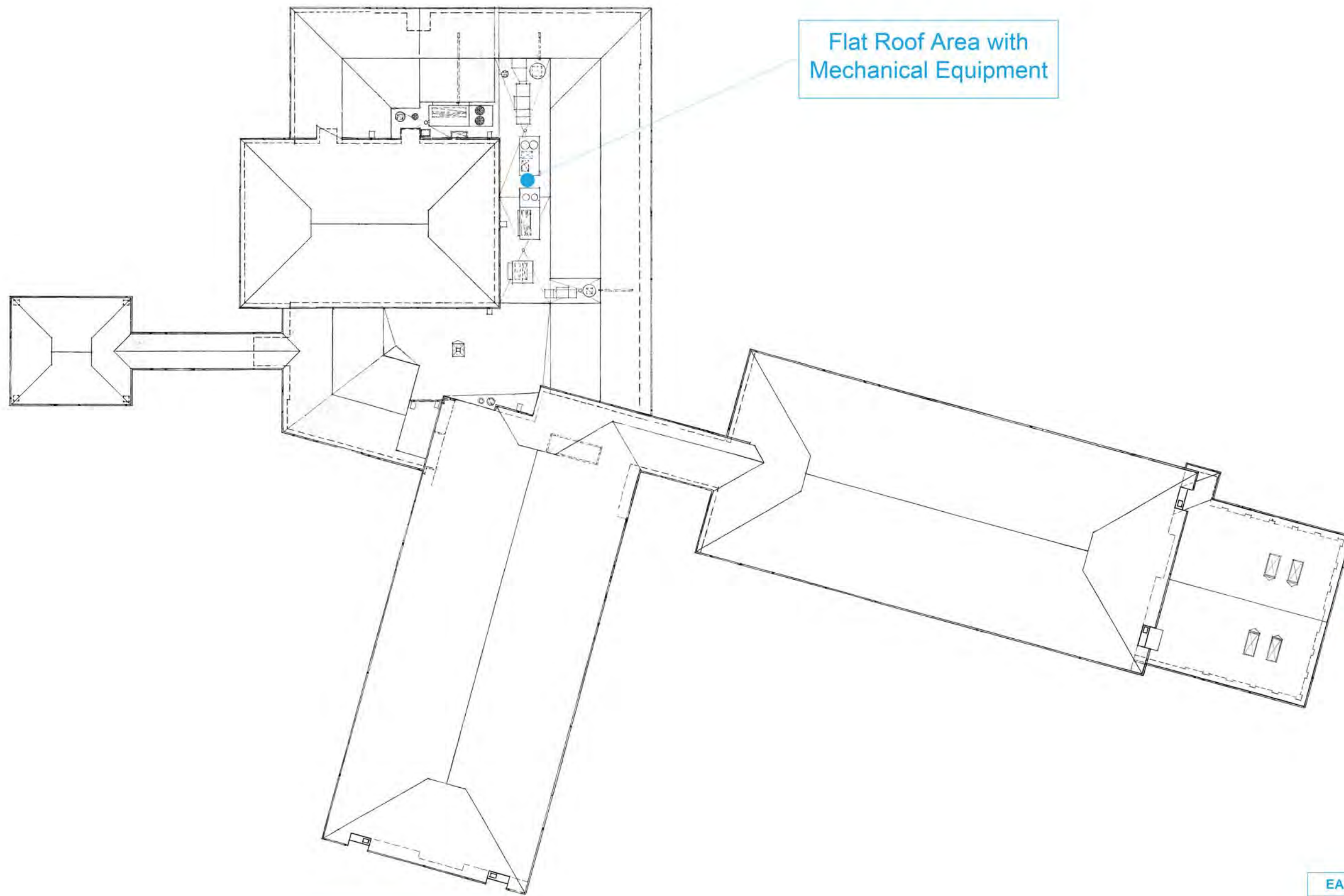
HOTEL WING "A"

HOTEL WING "B"

EAGLE CREEK RESORT ASSESSMENT

UPPER FLOOR PLAN  
N.T.S.





Flat Roof Area with  
Mechanical Equipment

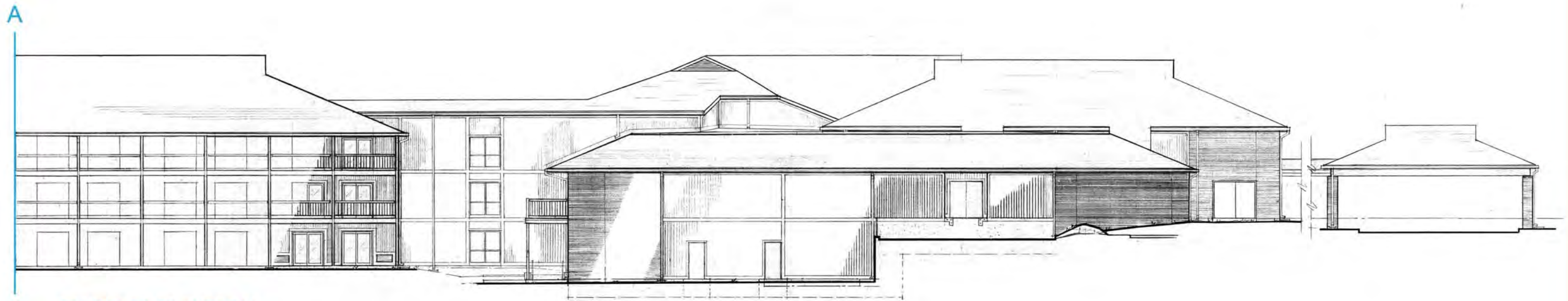
HOTEL WING "A"

HOTEL WING "B"

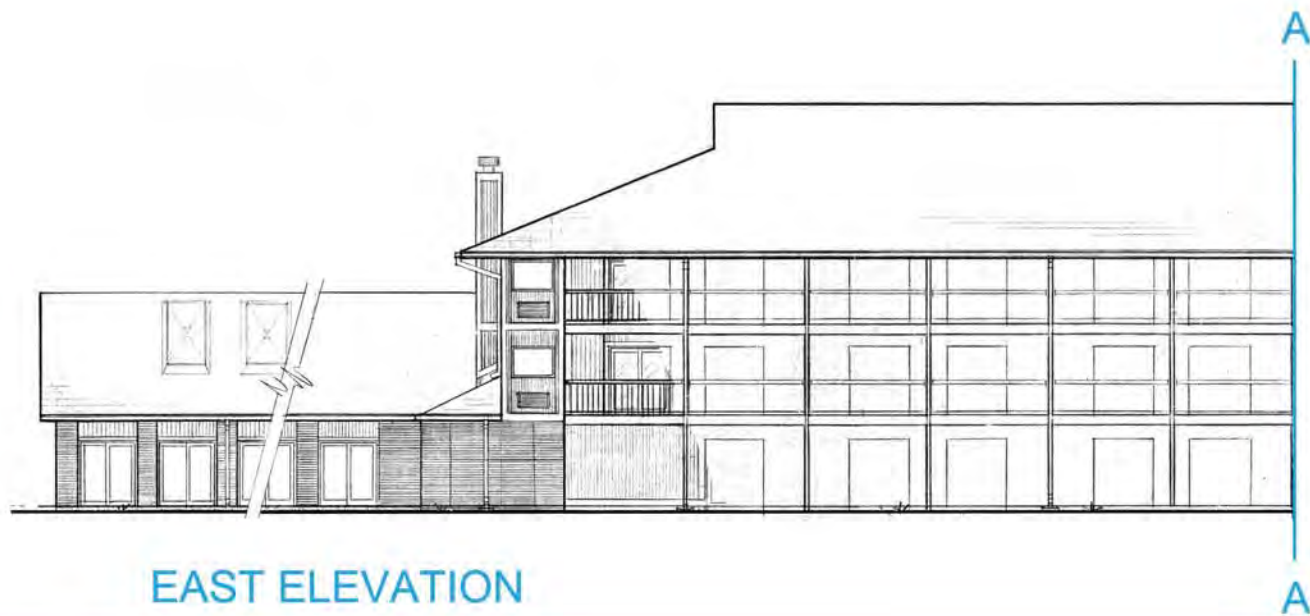




NORTH ELEVATION



A EAST ELEVATION



EAST ELEVATION

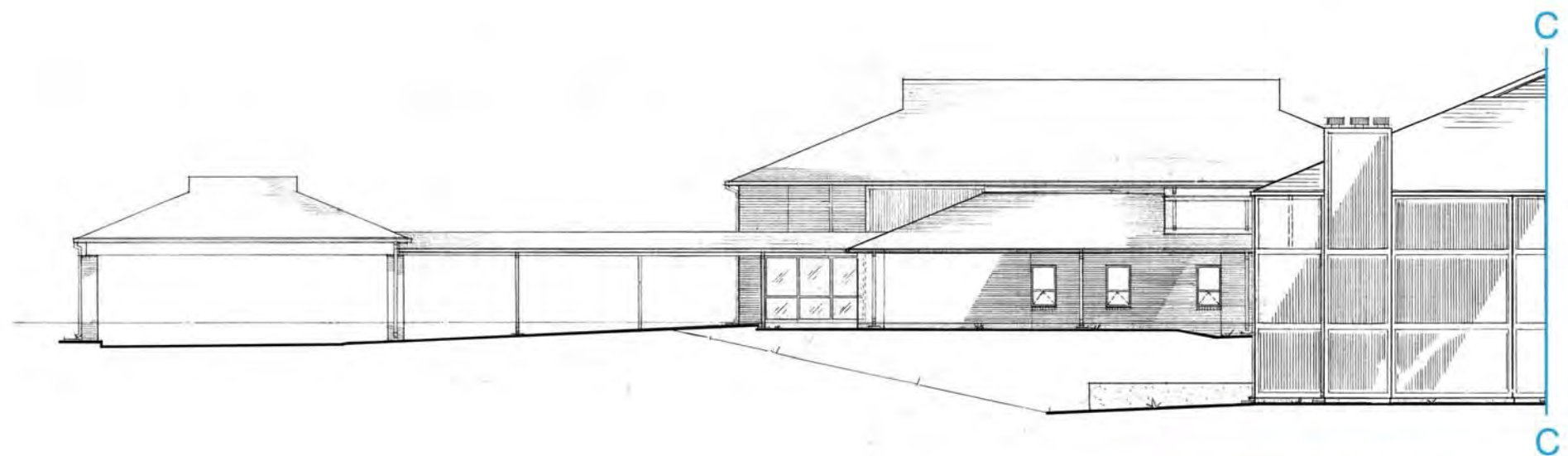




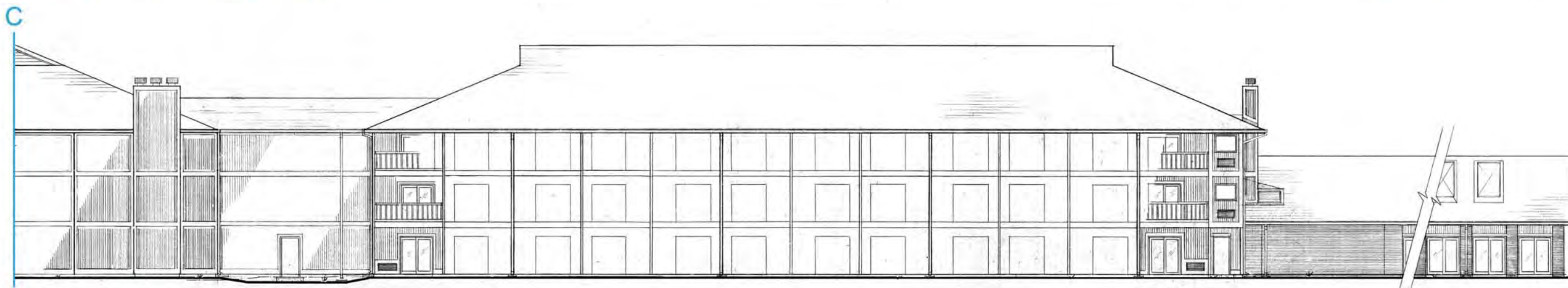
B  
B  
SOUTH ELEVATION



B  
B  
SOUTH ELEVATION



C  
C  
WEST ELEVATION



C  
C  
WEST ELEVATION

**SECTION 6**

**CIVIL / SITE**

## CIVIL SITE FEATURES SUMMARY

### SECTION BREAKDOWN

- Site Plan
- Access Road
- South Parking Lot Area
- North Parking Lot Area
- Back-Up Generator and Loading Dock Area
- Sidewalks and Concrete Patios
- General Site Drainage / Erosion / Landscape
- Mini-Golf Area
- Eagle's Landing
- Sanitary Sewer System

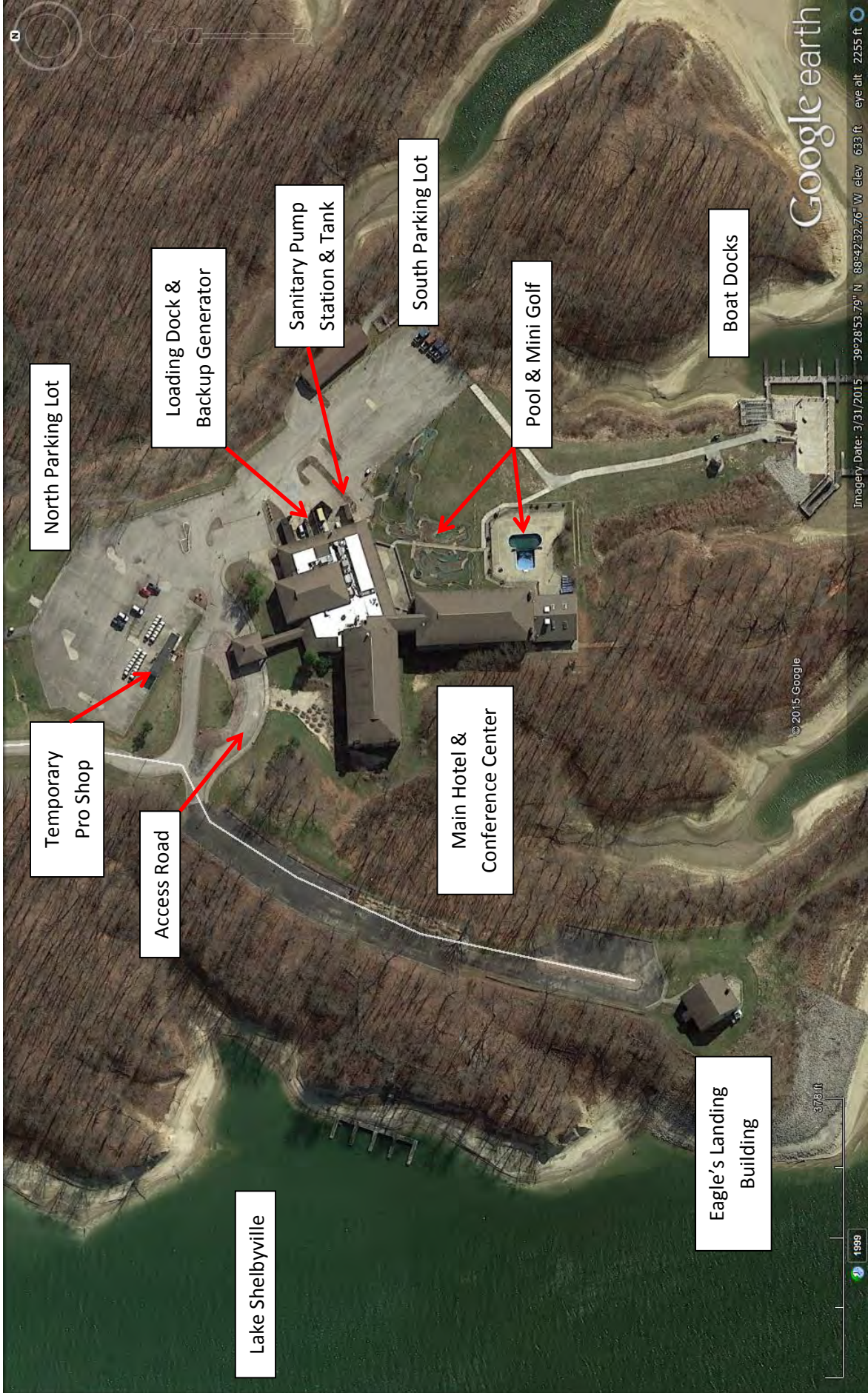


## CIVIL / SITE

### Background

The Civil Site features include the general grounds, roads, parking lots, landscape, paths, sidewalks, and sanitary and stormwater features. The overall condition of each feature is summarized below along with initial recommendations and estimate of probable costs in the Appendix. The assessment is based upon visual observations in the field from a site visit in June 2015 and review of existing drawings. A pressure test was conducted on the sanitary sewer force main. See Sanitary Sewer Section.

The general layout of the site is shown on the figure on the next page.





## Access Road

- General pavement showed some cracking that should be sealed at a minimum.
- Pavement in main hotel drop off area under the canopy had significant cracking / potholes, evidence of prior repairs and needs to be replaced.
- Drainage appeared good. One inlet structure on north side of roadway closest to hotel appeared to be in good condition. Storm sewer leads west to the lake. Manholes were clean and in good condition.
- Asphalt curbs were in fair to poor condition – needs repairs / sealing. Some displaced sections of curb need replacement.
- Signage was faded and needs replacement.
- Adjacent asphalt sidewalk in fair to good condition. Some cracks in need of sealing.
- Appears to be two water lines running at the surface crossing the exit road to the temporary Pro Shop trailer.
- Exit roadway appears in good condition – needs resealing / alligator crack repairs.



Asphalt curb cracks - typical





Asphalt curb cracks / displacement at entrance



Typical Sign





Water line leading to the temporary Pro Shop Trailer



Exit Road

## South Parking Lot Area

- Appears to be used primarily for boat parking.
- Alligator cracks throughout with some minor rutting – Repave with bituminous asphalt pavement.
- Approximately 15' x 15' area near loading dock is gravel – needs repaving.
- Asphalt curbs cracked and in fair to poor condition.
- Parking space striping significantly faded to non-existent.
- Wheel stops in generally good condition.
- No ADA spaces marked.
- Drainage was generally good due to steepness of pavement slope. Drains by sheet flow to south and east. No inlets / catch basins.
- Steep, unprotected dropoff adjacent to pavement located north of cart building – needs fence / guardrail.
- Approximately 500-gallon fuel tank located near hotel entrance area does not appear to have spill protection. No bollards protecting tank from vehicle impact – needs immediate attention or relocation to area with protection.
- Light pole missing near golf cart shed.



Typical pavement conditions south parking lot





Typical pavement in south parking lot



Alligator cracking northwest end of parking lot





Significant pavement deterioration south end of parking lot



Approximately 15' x 15' area of gravel near loading dock





Unprotected fuel tank adjacent to mini-golf



Steep drop off north of cart building

## North Parking Lot Area

- Appears to be used primarily for vehicle parking. Currently also includes golf cart parking, tent and trailer for golf course temporary pro shop.
- Alligator cracks throughout with some minor rutting – repave with bituminous asphalt paving.
- Asphalt curbs cracked and in fair to poor condition.
- Parking space striping significantly faded to non-existent.
- Wheel stops in generally good condition; located in grass in some areas.
- Two ADA spaces marked near trailer. Signage appears to be more recent.
- Drainage is generally fair to good. Drains by sheet flow. Pavement slope is flatter than in south lot. A few areas appear to pond water. No inlets / catch basins.
- Several traffic islands have been removed and paved over. These are typically used to help control traffic flow in parking lots. These should be replaced.



Typical pavement - north parking lot area pavement





Wheel stops on north east side of lot located in grass



Evidence of localized ponding and pavement deterioration





Evidence of localized ponding and pavement deterioration



North side of north parking lot



Parking by temporary Pro Shop – two ADA spaces to left of carts, significant alligator cracking



Golf cart parking / temporary Pro Shop trailer and tent



## Backup Generator and Loading Dock Area

- The backup generator and loading dock area is located in rear of hotel building.
- Area includes electrical feed and equipment boxes, large backup generator, natural gas feeds, loading dock, trash container and grease bin.
- Backup generator includes diesel tank. No external spill protection. Need to verify that tank has adequate internal spill protection. Likely double walled unit with internal leak detection.
- One grated stormwater catch basin adjacent to transformer receives surface drainage. Basin is clogged with debris. No storm sewers are shown on the drawings. Additional sewer investigations are beyond the scope of this study. During renovation phase, the drainage for this area should be verified and routed appropriately to meet current code/stormwater drainage requirements.
- The asphalt pavement in the transformer area is in fair condition. Concrete pads for the electrical equipment appear to be in good condition.
- Two building roof drains discharge to pavement. These could be routed to the sanitary sewer and pumped. Consideration should be given to rerouting to a new storm sewer to reduce pumping costs.
- There is a grease tank located in the loading zone area. The tank is leaking fluid into a grated slot drain. The outlet to the slot drain is unknown. Recommendation is tank should be removed or relocated and the spill cleaned up. Appropriate management of kitchen wastes needs to be re-developed during renovation phase.
- Concrete pavement in the loading dock area is in fair condition.
- There is a missing grate on the stormwater slot drain.
- The wooden loading dock and wood fencing in this area are in poor condition and should be reconstructed during the renovation phase.





Back-up generator with belly tank. Note catch basin.



Debris filled catch basin adjacent to backup generator





Roof drain discharging to pavement



Loading dock area; note wooden dock platform



Leaking grease tank draining to storm drain



## Sidewalks and Concrete Patios

- Sidewalks are typically concrete with some asphalt adjacent to the main access road. The condition of the sidewalks is generally good with some cracking. Walkways are generally even. Asphalt sidewalks need sealing of cracks typically and minor spot repairs.
- Slopes need to be verified for ADA compliance.
- Patio area pavement adjacent to the former pro shop area of the hotel is in fair condition, but appears to be functional.
- Pool area concrete patio area appears to be in good condition. Some sealing of joints and cracks is required.



Typical asphalt sidewalk adjacent to roadways; minor cracking; debris is from roadway.





Main entry concrete walk



Patio area adjacent to original pro shop



Sidewalk adjacent to pool



Pool Area concrete



## General Site Drainage / Erosion / Landscape

- The general site drainage appears good due to the overall slope of the site and soil conditions. No significant evidence of ponding or erosion was identified in the vicinity of the buildings or parking areas.
- Existing stormwater drainage features were in generally good condition.
- Roof drains were typically routed underground via corrugated PVC pipe to storm sewers or low areas draining to the lake in most cases.
- Overall landscape was in fair condition. One major disturbed area was seen adjacent to the hotel with no vegetation. This area should be restored with topsoil and seeding as should any additional areas disturbed during prior restoration.
- Some bare patches of turf area were noticed throughout the site. These can be remedied with minor topsoil placement and seeding.
- There were few trees or shrubbery in the immediate hotel area. Additional site landscaping should be performed to improve the overall aesthetic quality of the site.
- The brick retaining wall / perimeter fence around the pool area appears in good condition.



Disturbed landscape area near front of hotel

## Mini Golf Area

- The mini golf area is in fair to poor condition. The holes are carpeted over concrete. The putting surface carpeting is in very poor condition and requires replacement.
- There is minimal landscaping or trees in the area.
- Generally, slopes do not appear to meet current ADA requirements.
- This area would require a complete rework during reconstruction phase.



Mini golf area – typical condition\*

\*Constructed at a later date, not part of the original hotel program.



## Eagle's Landing Area

- This is a smaller conference center with eight separate guestrooms located near the shoreline south-west of the main hotel area.
- General sidewalk and concrete patio are in fair to good condition. Railing around patio area is in need of repair.
- Adjacent parking lot pavement is in fair condition – somewhat better than the other parking lots. Asphalt curbs are in generally good condition.
- The sanitary sewer pump station appears to be in poor condition. See Sanitary Sewer System Section for additional information and test results.
- Roof drains are to below grade piping and likely directed to lake.
- No significant erosion, landscape or drainage issues were noted.



Eagle's Landing building and sidewalk



Parking lot north of Eagle's Landing building



Eagle's Landing Sanitary Sewer Pump Station





Patio and railing at rear of Eagle's Landing  
(Note missing guardrail)

## Sanitary Sewer System

- Based on the plans for the site, sanitary waste from the hotel is pumped via a force main to the Berry Pond pump station (near hole 4 on the golf course) and then on to the wastewater treatment plant. Detailed information on the pumps was not included on the drawings provided for the site.
- A 60-foot long, 6-foot diameter holding tank is located adjacent to the pump station.
- The drawings indicate that the force main is 2-1/2-inch diameter PVC pipe. The force main is approximately 4,855 feet long.
- It is our understanding the forcemain was pressure tested by IDNR in April 2014. The forcemain was reported to have held pressure at 20 psi with no leaks.
- Manhole covers at both pump stations were removed from the pump station and tank. All manholes appeared to be in good condition. The water level appeared to be near the top of the tank. Water was clear (no solids) and very green. It was unclear if this was from algae or a dye in the tank. No odors were observed. The clarity of the water and lack of odor would be consistent with non-sanitary sources of water. This could be from groundwater, indicating a leaking tank or from surface stormwater sources cross connected with the sanitary sewer.
- Additional testing of the pumps and sanitary sewer force mains were conducted in March 2016. The electrical systems for the two sanitary pump stations (hotel area and Eagle's Landing) were investigated on March 14, 2016. It was found that each pump station was missing one pump. They were both designed to house two pumps. Both stations were found to have been rewired improperly and in poor condition. The electrician was able to temporarily restore power to the pump for testing purposes and the pumps were found to function. The pumps only worked in manual mode. Automatic floats appeared to be inoperable. The pumps did not generate sufficient pressure to flush out the force mains. Recommend a complete rehabilitation or replacement of the electrical and mechanical systems for both pump stations including rewiring, replacement of floats switches, valves and replacement of pumps.
- The force mains were tested on March 17 and 18, 2016. Due to the unreliability of the pumps, the force mains were temporarily connected to the fire main water supply and flushed. A flow test was conducted by flushing the forcemains with water. The hydrant pressure was sufficient to flush out both lines. Water was observed entering the Berry Pond pump station. A pressure test was conducted by installing a pressure gage on the line from the fire hydrant to the force main. The force mains held pressure at 30 PSI for two hours without loss of pressure or evidence of leakage.
- Based on the flow and pressure test, the force mains appear to be in working condition. It is likely that there was some accumulation of solids in the line over time which may have impeded flow at some point. If the force main system is put back in service, recommend periodic flushing of the line to remove solids accumulation. Heavy duty grinder pumps made specifically for sanitary force main systems should be used, particularly with the increased use of "flushable" wipes — a known clogging issue in sanitary sewer systems. Addition of inspection / clean out ports on the force main system is not recommended due to the potential increase in failure points in the system at the junctions. Replacement of the force main is not recommended.





Sanitary Sewage Pump Station near dock area



Pump station interior





Pump and tank manholes



Tank manhole



Berry Pond Pump Station



## Findings and Recommendations:

Below is a summary of recommendations for Civil Site work:

Area	Description	Comments / Notes
General	Site Signage	Replace approximately 20 - 30 small signs
General	Landscaping - large area at front of	Limited to minor regrading, topsoil and seed disturbed & eroded area in front of hotel
General	Landscaping - miscellaneous landscaping	
General	Sidewalk Repairs	Primarily sealing and minor repairs to asphalt sidewalks in front of hotel access road (approximately 400 LF) and Eagles Landing (approximately 150 LF)
Access Road	Repaving / Overlay	
Access Road	Curb Replacement / Repair	Assumes 25% is replaced - Asphalt type curb per existing
South Parking Lot	Repaving / Overlay	
South Parking Lot	Striping per stall	Rough estimate of space count
South Parking Lot	Striping per Handicap stall	Rough estimate of space count
South Parking Lot	Light Pole	Replace pole
South Parking Lot	Fuel Tank Relocation & Spill Protection	Assumes tank is simply relocated and spill protection berm or other minor protection provided.
South Parking Lot	Guardrail by cart building	
North Parking Lot	Repaving / Overlay	
North Parking Lot	Striping per stall	
North Parking Lot	Striping per Handicap stall	
Backup Generator / Loading Dock Area	Loading Dock structure replacement	Includes demo of existing structure
Backup Generator / Loading Dock Area	Repaving / Overlay	
Backup Generator / Loading Dock	Grease tank Removal / Relocation	
Sidewalks and Concrete Patios	General concrete repairs	Minor repairs to patio in back of hotel
Mini Golf Area	Demo and regrade	

<b>Area</b>	<b>Description</b>	<b>Comments / Notes</b>
Eagle's Landing Area	Pavement sealing	
Eagle's Landing Area	Striping	
Sanitary Sewer System	Hotel Pump Station Pump replacement	Replace mechanical and electrical
Sanitary Sewer System	Eagle's Landing Pump replacement	Replace mechanical and electrical

## **SECTION 7**

### **BUILDING ENVELOPE (INTERIOR AND EXTERIOR)**



## EXTERIOR BUILDING ENVELOPE

### Building Exterior (Walls)

#### Material:

The exterior walls are a combination of brick masonry veneer and wood siding and trim veneer on wood stud framing. Soffits are painted wood. As-built drawings indicate fiberglass batt insulation within exterior wall throughout.

#### Features:

Typical first and upper floor hotel guestrooms have outdoor balconies (concrete) and lower floor hotel rooms have outdoor slab-on-grade patios at grade open to the exterior (Figure 1). Exterior trim, walls, and soffits are typically pre-finished wood with a slightly rustic appearance. Balcony rails are pre-finished wood with brown anodized aluminum guardrail supports. Balcony floors are 3 inches of lightweight concrete on top of wood structural framing. There is one continuous outdoor balcony adjacent to the two 2<sup>nd</sup> floor restaurant spaces supported by painted steel posts on raised concrete footings (Figures 1 and 2).



Figure 2 – Outdoor Balcony



Figure 1 – Guestroom Balconies

The single wythe brick veneer throughout the hotel resort is standard brick laid “out of plumb” horizontally and vertically to appear rustic (Figure 3).

Wood siding and trim appear to be pre-finished throughout. Wood siding appears to be T-111 plywood.



Figure 3 – Typical Pier Brick

At the main hotel building the hotel entrance is a covered canopy with a vehicle drop off point leading to the main entry doors via a covered walkway supported by brick clad piers and painted steel posts (Figure 4).



Figure 4 – Main Entrance

**Joints/Moisture Control:**

Brick masonry veneer appears to have adequate vertical expansion joints throughout. Sheet metal downspouts and gutters shed water away from roof typically to an underground storm system (Figure 5). Flashing is visible at the base of the masonry walls in some areas. Flashing appears to be a synthetic vinyl or rubber membrane product (Figure 6).



Figure 5 – Downspout



Figure 6 – Foundation Wall



**Condition:**

Wood siding and trim is typically in poor condition throughout. Holes, cracks, and missing trim pieces appear in numerous areas (Figure 7). These deteriorated conditions have been typically left uncovered and therefore have made the wall cavities susceptible to water infiltration. There is some evidence of water damage from inside the walls (Figure 8). Additionally, the removal of thru-wall air conditioner units without properly covering the wall opening has often left the inside of wall cavities exposed and susceptible to water and moisture damage (Figure 9). There is water damage on the wood trim in numerous areas. The original paint finish on the siding and trim has faded and begun to peel over time leaving the bare wood susceptible to further deterioration (Figure 10). Wood trim is also separating from the façade at various locations.



Figure 7 – Typical Wall Deterioration



Figure 8 – Wood Party Wall at Grade



Figure 9 – Exposed A/C Openings in Wall



Figure 10 – Balcony



Concrete patios at hotel rooms often have significant cracks appearing (Figure 11). This could be partly due to poor drainage around the foundation as there is some evidence of eroding of the subbase beneath the concrete patios (Figure 12).



Figure 11 – Concrete Patio



Figure 12 – Soil Erosion at Patio

The brick veneer is in good condition based on its outward appearance. There is little evidence of cracking, spalling, displacement, etc. However, the rough and unaligned coursing which gives the wall its “rustic” appearance could lend itself to moisture penetration over time. It is not desirable to have more than the outside face of each brick uncovered by mortar and exposed to the elements.

Exposed painted steel posts at both the main entry walkway and south patio have significant rusting at their bases typically (Figures 13 and 14). Significant section loss due to corrosion would require full replacement.



Figure 13 – Steel Supports



Figure 14 – Raised Pier and Steel Support

Missing or damaged downspouts and splash blocks have created conditions where water has not been shedding properly away from the building and has likely caused roof/foundation damage due to erosion (Figures 15 and 16).



Figure 15 – Downspout



Figure 16 – Hotel Entrance Wall

### Building Exterior (Roof)

#### Material:

Roof is typically a sloped Dutch gable style with asphalt shingles on plywood sheathing supported by engineered wood trusses (Figure 17). Drawings indicate fiberglass batt insulation under roof structure throughout. There is an area surrounding the main entry and lobby which has a flat membrane system roof over a plywood deck. This area is used for mechanical equipment (Figure 18).



Figure 17 – Shingled Roof  
(Note Roof Patches)



Figure 18 – Mechanical Equipment on Flat Roof



**Features:**

Gable vents are located at each end of the two hotel wings' roofs as well as the main building roof over the banquet hall (Figure 19). There are fireplace chimneys at each end of the hotel wings and one above the main lobby roof (Figure 20). The south indoor pool roof is a separate asphalt shingled roof with four skylights (Figure 21).

Soffits at roof eaves typically have a continuous vent within the wood siding.



Figure 19 – Roof Vents



Figure 20 – Fireplace Vent



Figure 21 – Roof over Pool Area



Figure 22 – Various Roof Conditions

**Joints/Moisture Control:**

There are typically sheet metal gutters with downspouts installed at roof eaves. The flat portion of the roof has internal roof drains. Aluminum flashing and cant strips are installed at the edges of flat roof portions (Figure 22).



**Condition:**

Asphalt shingles are in poor shape and have presumably outlived their useful life, and are likely original to the hotel. Visual imperfections such as discoloration and sagging at ridges suggest the age and wear of the shingles and substrate (Figures 23 and 24). In numerous areas throughout the shingled portions of the roof substantial holes have appeared, most likely created by animals. These holes have been temporarily covered with stainless steel sheets anchored to the roof through the shingles (Figures 25 and 26). However, it is likely that water has infiltrated the inside of the building and may have caused damage to the roof structure. The plywood sheathing is likely to be damaged and require replacement in some areas. There are numerous areas inside where ceiling tile has sustained water damage.



Figure 23 – Roof



Figure 24 – Roof Detail



Figure 25 – Roof Patching



Figure 26 – Roof Patching

Gutter and downspout system is substantially damaged and is missing pieces throughout. Missing downspouts have caused water to pool and collect in some parts of the flat roof and has caused staining and deterioration to the wood siding, trim, and asphalt shingles (Figures 27 and 28). Some flat roof areas are exhibiting mold.



Figure 27 – Mold at Flat Roof



Figure 28 – Ponding at Flat Roof

## Windows, Glazing, and Louvers

### Material:

Windows are brown or clear anodized aluminum with thermally broken frames and 1” clear insulated glass throughout (Figure 29). At the main building entry is a vestibule enclosed by a brown anodized aluminum storefront system (Figure 30).

There are ventilation and exhaust louvers throughout at attic and mechanical spaces. There are louvered ridge vents at each pitched roof.



Figure 29 – Window



Figure 30 – Main Entrance to Lobby



**Type:**

Windows are a mix of fixed and operable. There are awning type windows at the management office and horizontal sliding type windows at the restaurant patio. There are some double hung windows in the hotel corridors (Figure 31, Figure 32). Floor to ceiling storefront glazing only appears at the front entry and the indoor pool room.

**Condition:**

Window systems all appears to be original to the building. There does not appear to be significant damage to the windows however windows of this age would not be as energy efficient as windows of current technology. General deterioration of weather-seals and gaskets has occurred over time. There are some damaged/missing louvers, as well.

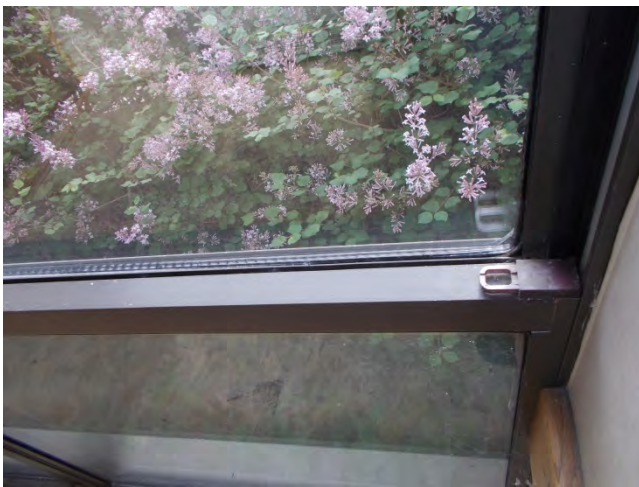


Figure 31 – Double-Hung Window



Figure 32 – Typical Fixed Window

**Doors and Frames****Material:**

Exterior service and egress doors and frames are typically painted hollow metal. Front entry doors are aluminum framed full glass hinged doors. All hotel rooms have sliding glass aluminum framed doors exiting to either a balcony or patio (Figures 33 and 34). The indoor pool room has a series of sliding glass aluminum framed doors around its perimeter with one aluminum framed full glass hinged door for accessibility egress (Figure 35).





Figure 33 – Sliding Glass Doors with Adjacent Patio

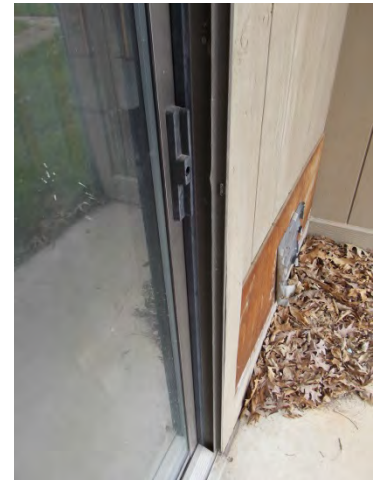


Figure 34 – Sliding Doors

Along the south wall of the first floor restaurant and bar and the lower floor café, golf pro shop, and conference room are a series of painted wood framed sliding glass doors opening to the south patio and mini-golf area (Figure 36).



Figure 35 – Indoor Pool Building



Figure 36 – Sliding Glass Doors

**Type:**

Exterior doors are either hinged or sliding double doors.

**Condition:**

Exterior doors appear to all be original to the building. No significant damage appears to have occurred; however, due to age, general wear, and a long period of disuse most hardware is in fair to poor condition and some hardware is missing completely (Figures 37 and 38). Hollow metal doors and frames have instances of rusting and peeling paint particularly at the base and are in fair to poor condition due to age and wear (Figure 39). Wood framed sliding glass doors are in poor condition due to frame cracking and peeling along the frames (Figure 40). General deterioration of weather-seals and gaskets has occurred over time as well. Exterior hollow metal doors within the kitchen area are in very poor condition likely due to heavy usage and missing weather seal hardware.



Figure 37 – Exterior Door Detail



Figure 38 – Hollow-Metal Door without Hardware



Figure 39 – Hollow-Metal Door



Figure 40 – Wood Window

## BUILDING INTERIOR

### Interior Walls

#### Material:

Most of the building's interior partitions are gypsum board on wood studs finished with either paint or wallcovering. Decorative wood trim is limited mostly to the main lobby and public corridors. There is decorative varnished wood base and crown molding in the lobby as well as decorative wood fabricated false 'beams' under the ceiling. A continuous varnished wood chair rail is present throughout all of the public areas. The first floor restaurant and bar spaces have decorative wood molding and trim throughout.

Ceramic tile wainscoting is present in each of the public toilets and locker rooms. All public toilets have a slightly different color scheme.

The walls within the indoor pool room are a combination of painted gypsum board along with prefinished wood and face brick to match the building exterior.

As-built drawings indicate interior wall cavities are filled with fiberglass batt insulation throughout the hotel.

#### Features:

Ornamental and identification signage exists throughout the hotel. Toilet rooms are fully intact with fixtures, partitions, and accessories. Casework (wood and plastic laminate) is mostly intact throughout hotel including the front desk, restaurant bars, and kitchen counters. A brick clad fireplace matching the exterior brick is present in the main lobby.

The banquet room contains 3 intact moveable wall dividers.

#### Condition:

Water infiltration, age, and lack of proper climate control have left most of the finishes throughout the hotel damaged and unable to be salvaged. Most spaces have visible mold on the wall surfaces on or behind the peeling wallcoverings. Some wood trim has sustained damage and is missing pieces. It is unlikely that any gypsum board or wall insulation will be reusable as mold is likely to be present in wall cavities.

Within the indoor pool room wood finishes and metal fixtures have sustained heavy moisture damage. Most metal items throughout including light fixtures, structural steel connections, vents, and door frames have visible corrosion. Wood wall coverings are warped, cracked, and stained.

A partial mold remediation effort (2011) has occurred in all three floors of hotel wings "A" and "B". Substantial demolition of gypsum board, batt insulation, finishes, casework, and plumbing fixtures has occurred in most of the hotel rooms. For the most part wood studs seem to be in good condition.



## **Doors, Frames, and Windows**

### **Material:**

The interior doors are primarily clear finished solid core stained wood veneer doors. Interior frames are primarily hollow metal painted. A pair of wood fire doors has been installed between the elevator lobby area and hotel wing "A" at each floor.

There is little internal glazing within the hotel building. The entrance to the first floor lounge is a custom built ornamental wood and glass partition.

### **Features:**

Doors throughout are primarily flat slabs with no distinctive ornamental features. The entry doors to the banquet room from the front lobby are 15 panel stile and rail wood double doors and the main entry to the first floor restaurant are wood and glass double French doors.

### **Condition:**

Doors throughout are in fair to good condition with most of the deficiencies occurring on the door surfaces (scuff marks and worn finish). The interior door hardware condition is similar to that of the exterior doors in that some is missing and damaged and must be replaced. A thorough investigation by a qualified testing agency should be performed on required fire doors where proper fire-rating labeling is missing or not present.

## **Ceilings**

### **Material:**

Ceilings, where present, are typically 2 x 4 and 2 x 2 suspended acoustic ceiling tile and metal grid or painted gypsum board throughout the hotel building public areas. Within the first floor restaurant and bar the ceiling is open to painted structural wood trusses and textured wood siding under the roof sheathing. The indoor pool ceiling has a similar condition with bare unfinished wood trusses and siding. Hotel rooms have painted and textured gypsum board ceilings on all floors.

### **Features:**

Decorative "false" wood beams, stained and varnished, span the length of the entry lobby.

### **Condition:**

As with the wall finishes neglect and water infiltration has left much of the ceiling finishes unable to be salvaged. Many acoustic ceiling tiles are missing and the support grid is worn, bent, and damaged in many areas, or collapsed.

Where mold remediation has occurred within hotel wings "A" and "B" much of the gypsum board ceiling has been removed to the studs as well.

Replacement and remediation of electrical, mechanical, and plumbing elements indicated elsewhere in this report will necessitate full replacement of most of the ceilings throughout.

## **SECTION 8**

### **POOLS**

## **POOL SUMMARY**

### **Background**

The resort has two swimming pools: an indoor pool (approx. 1100 SF) and an outdoor pool (approx. 1500 SF) which was not part of the original hotel construction. As the recent assessment report indicates, prepared by Rosebrook Carefree Pools, Inc., neither pool was prepared or winterized for extended non-use, and as a result both pools and equipment have suffered significant damage. Attempts to cover the outdoor pool have failed.

The indoor pool roof is supported by exposed built-up wood trusses with a stained finish.

### **Condition**

The outdoor concrete pool patio and surrounding metal safety fencing is in fair to good condition. The surrounding concrete block retaining wall surrounding the pool is in good condition.

The reconditioning of each pool would require that the current Illinois Department of Public Health requirements be met, and inspected and approved by this same agency.

Any suspect environmental issues would require full abatement within the context of the pool areas.

Due to the prior high humidity levels within the indoor pool area and current lack of ventilation or air movement, the exposed wood trusses will need to be inspected for mold and signs of deterioration due to humidity.

Further, any reconditioning proposed for the pools must meet current ADA and accessibility requirements for the pool area, patio and all adjoining support spaces which serves each public pool area. Some of the ADA improvements are noted.

Testing of the pool equipment and pumps would be the initial stage of determining extent of reconditioning and associated costs as noted. We would assume that the electrical service in place serving the equipment could remain.

It is our professional opinion that given the age of the pools and associated equipment, which appear to be original to the 1989 opening date, would need to be fully replaced with newer equipment.

### **Findings and Recommendations**

Reference Appendix for the estimate of probable costs for details of the recommended repairs and / or replacement specific to the pool areas.



**ROSEBROOK CAREFREE** *the finest* **POOLS, INC.**

29870 N. SKOKIE HWY  
LAKE BLUFF, IL 60044  
PHONE (847) 432-0710  
FAX (847) 432-3911  
www.carefreepools.com



Mr. Bruce Weber  
Globetrotters Engineering Corporation  
300 South Wacker Drive, Suite 200  
Chicago, IL 60606

June 24, 2015

Re: Assessment of the pools & spas at Eagle Creek Resort, Findlay, Illinois

Dear Sir,

I traveled to the resort on Thursday, 6/18/2015 to examine the above facility so as to be able to make the following assessment of what needed to be done to bring the pools and spas up to current Illinois State Department of Health requirements.

I have put all of the estimates of time and costs on succeeding pages, with this exception:

When the facility was closed, none of the pools or spas were winterized. The first price for any work to be done is to pressure check all of the units, and using a leak detection device, listen to find any leaks. I'm quite sure that there will be some. I estimate that it will take two men, two days to accomplish this. Not including travel time from a distant location, I estimate 32 plumber hours @ \$120 per hour, totaling \$3,840. Please note, this does not include anything for leak repairs, as a pure guess, ADD \$4,000 for each of the pools & spas, which brings up the total for leak detection & repair to \$19,840, assume a total of \$20,000 for this phase.

Following are the individual pools & spas in addition to the above:

Outdoor pool: Approx 1500 sq ft surface, need to ADD two skimmers to system	\$8,000
Needs automatic chemical control, ADD .....	4,500
Needs (8) more returns, ADD.....	15,000
Needs automatic chemical control ADD.....	4,500
Needs flow meters & guages ADD.....	700
Needs VGB approved main drains ADD.....	8,000
Needs Handicap Lift ADD.....	8,000
Clean up and repaint the interior ADD.....	4,000
Sub total for the outdoor pool.....	\$52,700

Page 1

Outdoor Spa:	Approx 60 sq ft, 1000 gallons,	ADD two VGB suction lines.....	\$4,000.
	Needs Emergency Shut Off	ADD.....	2,000
	Needs automatic chemical control	ADD.....	4,500
	Needs flow meters and gauges,	ADD.....	700
	Needs Handicap Lift,	ADD.....	8,000
	Clean up spa & equipment area	ADD.....	3,000
	Sub total for the outdoor spa.....		\$22,200

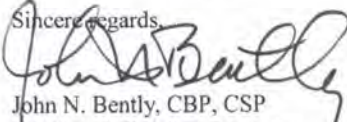
Indoor Pool:	Approx 1100 Sq ft, 38,000 gals.	Add one main drain, modify one....	\$8,000
	Needs automatic chemical control	ADD.....	4,500
	Needs flow meters & gauges	ADD.....	700
	Needs (8) additional returns	ADD.....	15,000
	Needs one more skimmer	ADD.....	7,000
	Needs Handicap Lift	ADD.....	8,000
	Eliminate blisters and refinish	ADD.....	12,000
	Needs new pool heater	ADD.....	4,500
	Sub total for the indoor pool.....		\$59,700

Indoor spa	Approx 40 sq ft, 700 gals.	ADD two VGB suction lines	\$ 4,000
	Needs Emergency Shut Off	ADD.....	2,000
	Needs automatic chemical control	ADD.....	4,500
	Needs flow meters & gauges	ADD.....	700
	Needs Handicap Lift	ADD.....	8,000
	Needs new heater	ADD.....	2,500
	Needs filter repairs	ADD.....	500
	Clean up spa & equipment area	ADD.....	2,000
	Sub total for the indoor spa.....		\$ 24,200

Adding all four repair assessments comes to \$158,800, plus \$20,000 for leak detection and repairs comes to a total of \$178,800.

I have attempted to use my best judgement on time and materials to assess the costs of the above, using union labor and standard materials.

Please get back to me for any questions.

Sincerely regards,  
  
 John N. Bently, CBP, CSP  
 Rosebrook Carefree Pools, Inc.

## **SECTION 9**

### **KITCHEN**



## KITCHEN EQUIPMENT

### Background

The kitchen, food preparation and serving area encompasses approximately 5,000 square feet of space located on the first floor adjacent to the banquet / meeting rooms and dining room, a key amenity to the hotel complex operation given its size and location. Several exterior doors and an exterior loading dock area also serves this space.

### Condition

We observed that all of the original (1989) kitchen – serving – food prep and storage equipment is still in place within the kitchen areas noted. The professional grade stainless steel equipment is heavily soiled and contaminated and likely has rodent and sanitation issues throughout. The utility connections for water and drainage serving the sinks and equipment are still intact, but not tested.

The quarry tile flooring system is damaged in numerous locations and heavily soiled. The suspended ceiling system in many areas is water damaged, heavily stained and requiring replacement. The wall surfaces throughout are damaged and heavily soiled. Lighting was available in this area.

Several exterior hollow metal doors are severely damaged due to usage and deterioration of weather seals.

### Findings and Recommendations

Moving forward, all of the kitchen equipment (movable and fixed), all floor, wall and ceiling finishes, as well as the utility connections would require removal, replacement or refurbishing, and very thorough environmental clean-up. There is no equipment or finish in the kitchen area that can be reused in its current state of condition.

The Illinois Department of Public Health requirements would be a necessary guideline for re-construction.

Reference photos of various areas of the kitchen and equipment.



Kitchen - Cooking Equipment



Kitchen - Food Preparation



Kitchen - Food Preparation



Kitchen - Coolers



Kitchen - Dishwashing



Kitchen – Quarry Tile Flooring



Kitchen – Staging Area



**SECTION 10**

**ELEVATORS**

## ELEVATORS

### Background

The facility has two (2) 3-stop hydraulic elevators original to the 1989 opening service date. The elevator equipment room is located adjacent to the elevator cars, opposite the laundry room.

The elevator cab interior remains complete with original finishes of carpeted floors and plastic laminate wall panels. Power is provided and cab overhead lights were working. The corridor call button illuminated when pressed, but no cars were activated.

The original elevator manufacturer is Dover Elevator Systems with Rota Flow Power System equipment (Model # EP 8025, October 1988). The elevator cab was observed at the lower level stop.

### Condition

The elevator call button controls within the cab may be inoperative due to age and exposure; certainly the age of the elevator system would indicate the electronics and controls are dated and in need of replacement.

The call button and cab positioning system would need updating to meet ADA requirements at each level, both tactile and audible.

Elevator consultants indicated that it would be difficult to find available parts to recondition the elevators at this time and costly to inspect, test and retrofit. It is very likely that the lack of consistent use and age would impact the hydraulic plunger unit and need replacing, as would the plunger oil seals.

The equipment room was relatively clean and free of oil spills, which can be common, but reusable space none the less for a retrofit.

### Findings and Recommendations

It is recommended that both elevator systems and associated equipment be replaced with newer comparable and more efficient elevator equipment provided by current manufacturers with latest controls and electronics, and connected to the facility's Life Safety Systems.

The cab interiors would need to be updated to meet ADA guidelines.

The equipment room layout remains usable and could be adapted to current equipment needs.

The cost of each elevator replacement is estimated at \$100.0K each.

Reference Appendix for the estimate of probable costs for details of the recommended replacement specific to the elevators.

## **SECTION 11**

### **MECHANICAL SYSTEMS**



## MECHANICAL

### Background

Main Hotel and Conference Center:

Multiple mechanical systems serve the main hotel and conference center. Mechanical systems are defined by occupancy usage type and include, cooling and heating comfort, cooling food storage, makeup air and exhaust. All cooling is refrigerant based and heating is either electric or gas fired. All ventilation systems are constant volume with air distributed to spaces by sheet metal ductwork and delivered to spaces via diffusers/grilles/registers. There is no building automated control system. Equipment is controlled by dedicated unit controls.

The lower level consists of hotel wings, common areas, mechanical, electrical and a laundry room.

The lower level common areas are served by a rooftop unit with 20 ton cooling capacity and 400 Mbtuh gas fired heating capacity. Additionally, there are four inline duct electric heating coils for supplementary zone heating. There are five small inline duct or wall mounted exhaust fans located and serving various lower level spaces.

The laundry room is also served by a supplementary floor mounted 3 ton split system cooling unit. A dedicated gas fired hot water heater provides hot water for the laundry room equipment.

The mechanical and electrical rooms are served by a common ventilation duct.

The first floor consists of hotel wings, administrative, lobby, banquet room, restaurant, bar/lounge, kitchen and back of house areas.

The first floor lobby and administrative areas is served by a rooftop unit with 15 ton cooling capacity and 300 Mbtuh gas fired heating capacity. The administrative area is also served by a supplementary outdoor grade mounted split system air handling unit with gas fired heating. There are six small/medium sized exhaust fans of various styles serving first floor spaces.

The banquet room is served by a rooftop unit with 30 ton cooling capacity and 400 Mbtuh gas heating fired capacity.

The restaurant and bar/lounge area is served by a rooftop unit with 33 ton cooling capacity and 500 Mbtuh gas fired heating capacity.

Kitchen Area:

Kitchen hood makeup air is provided by a rooftop makeup air unit with 1100 Mbtuh gas fired heating capacity. Kitchen hood exhaust is provided by a 17,000 cfm rooftop exhaust fan.

Kitchen and coffee shop makeup air is provided by a rooftop makeup air unit with 300 Mbtuh gas fired heating capacity. These spaces are exhausted by a 5800 cfm rooftop exhaust fan.

The dishwasher area is served by a 600 cfm rooftop exhaust fan.

There are two walk-in coolers located in the first floor kitchen back of house. The associated condensing unit is located below on grade. All name plate information is faded off and there is no information about this unit on the construction documents.

#### Hotel Wing:

Hotel wing guest rooms are served by individual wall mounted PTAC units with 1 ton cooling capacity and 3.7 kw electric heating capacity. Numerous PTAC units have been removed and are being stored in various locations inside the building, as well as on exterior balconies (Figures 1 and 2). For each wing toilet exhaust risers are provided for each back to back guest room tier and tied into a common exhaust header in the attic and discharged to the outside by a 2200 cfm inline ceiling hung exhaust fan. In addition, each attic space is provided with a 2200 cfm inline ceiling hung exhaust fan.



Figure 1 – PTAC units stored in open space



Figure 2 – Guestroom PTAC unit stored on balcony

There are numerous electric unit heaters, wall heaters and cabinet unit heaters located throughout the main resort building that provide supplementary heat.

#### Pool Area:

The indoor pool area is served by a 100% outdoor air gas fired duct furnace with 300 Mbtuh heating capacity and ventilated by two 7500 cfm rooftop exhaust fans. The ancillary spaces are served by a 6 ton split system air handling unit with 100 Mbtuh gas fired heating capacity. A 2000 cfm rooftop exhaust fan serves the health club. Both supply units are ceiling hung in an interstitial space above the pool ancillary areas.

The indoor and outdoor pools each have a dedicated gas fired water heater plant to provide tempered pool water.

#### Gas Service:

The building gas service meter and pressure assembly is located on the east side on the building in the generator bay. Building gas service is listed at 10,543 cfh per construction documents. The 4" gas main enters the building in the mechanical room and is routed to serve various equipment including, air handlers, hot water heaters, dryers and kitchen equipment.

Eagle's Landing:

The Eagle's Landing building common areas are served by a grade mounted air handling unit with electric heat. All name plate information is faded off and there is no information about this unit on the construction documents.

### Findings and Recommendations

All air handling and rooftop units have not operated or been maintained for the past 7 years. All components requiring lubrication have most likely dried out. All cooling units utilize the refrigerant R-22 which has been phased out. It is not known if refrigerant has been disposed of (Figure 3).

The lower level common areas rooftop unit appears to be original and is in poor condition. The unit has exceeded its useful service life. This unit is a Class 1 item.

Recommendation is to replace the rooftop unit with a new unit compliant with 2016 IECC.

The laundry room supplementary split system cooling unit and gas fired hot water heater appear to be original and in poor condition. These units have exceeded their useful service life. These units are Class 1 items (Figure 4).



Figure 3 – Makeup air handling units in rooftop mechanical courtyard



Figure 4 – Laundry room cooling unit

Recommendation is to replace the split system cooling unit and hot water heater.



The first floor administrative supplementary split system cooling unit appears to be original and is in poor condition. The unit has exceeded its useful service life. This unit is a Class 1 item.

Recommendation is to replace the split system cooling unit.

The first floor lobby and administrative area rooftop unit appears to be original and is in fair condition. The unit has exceeded its useful service life. This unit is a Class 1 item.

Recommendation is to replace the rooftop unit with a new unit compliant with 2016 IECC.

The banquet room rooftop unit appears to be original and is in fair condition. The unit has exceeded its useful service life. This unit is a Class 1 item.

Recommendation is to replace the rooftop unit with a new unit compliant with 2016 IECC.

The restaurant and bar/lounge rooftop unit appears to be original and is in poor condition with heavy evaporator fin damage. The unit has exceeded its useful service life. This unit is a Class 1 item (Figure 5).

Recommendation is to replace the rooftop unit with a new unit compliant with 2016 IECC.

The kitchen hood makeup air unit appears to be original and is in fair condition. The unit has exceeded its useful service life and is a Class 1 item.

Recommendation is to replace the makeup air handling unit with a new unit compliant with 2016 IECC.

The kitchen and coffee shop makeup air unit appears to be original and is in poor condition. The unit has exceeded its useful service life and is a Class 1 item (Figure 6).



Figure 5 – Restaurant and bar/lounge mechanical rooftop unit



Figure 6 – Kitchen and coffee shop makeup air unit

Recommendation is to replace the air handling unit with a new unit compliant with 2016 IECC.

The walk in coolers cooling system appears to be original. The in cooler evaporators are in fair condition and are class 2 items. The condensing unit is in poor condition. The unit has exceeded its useful service life and is a Class 1 item (Figure 7).

Recommendation is to replace the condensing unit and test the evaporators for operation and replace as needed.

The two indoor pool area air handling units located in the interstitial space were not observable. Based on the other building field observations, these units are most likely original and have exceeded their useful service life and are Class 1 items.

Recommendation is to replace both units with new units that are compliant with 2016 IECC.

The Eagle's Landing air handling unit appears to be original and is in poor condition. Sections of the housing have been removed exposing interior components to the elements. The unit most likely utilizes the phased out refrigerant R-22, and has exceeded its useful service life. This unit is a Class 1 item (Figure 8).



Figure 7 – Walk-in cooler condensing unit



Figure 8 – Eagle's Landing air handling unit

Recommendation is to replace the air handling unit with a new unit compliant with 2016 IECC.

PTAC units appear to be original and in poor to fair condition. These units have exceeded their useful service life and are Class 1 items.

Recommendation is to replace all PTAC units.

Exhaust fans appear to be original and in poor to fair condition. Guest room and attic fans were not observable. These appear to be Class 1 and Class 3 items (Figure 9).

Recommendation is to test all exhaust fans for proper operation and repair or replace as needed.

Ductwork appears to be original and in poor to good condition. Interior condition of ductwork was not observed. These are Class 2 and Class 3 items (Figure 10).



Figure 9 – Rooftop exhaust fans



Figure 10 – Mechanical room ductwork corrosion

Recommendation is to replace all equipment that is physically damaged, rusted or has mold damage. All ductwork should be tested for leakage and thoroughly cleaned per NADCA ACR standards.

Observed diffusers, grilles and registers appear to be original and in poor to good condition. These are Class 1 and Class 3 items (Figure 11).



Figure 11 – Supply diffuser mold



Recommendation is to replace all equipment that is physically damaged, rusted or has mold damage. Clean all other equipment.

Observed indoor pool plumbing system components including gas fired water heater, pumps, expansion tank and PVC distribution piping appear to be original and in fair to poor condition. These are Class 1 and Class 2 items. Pool water heater has exceeded its useful service life (Figure 12).

Recommendation is to test all equipment for proper operation and repair or replace as needed. Replace pool water heater and all broken PVC piping.

Observed outdoor pool plumbing system components including two gas fired water heaters, pumps, expansion tank and PVC distribution piping appear to be original and in good condition. These are Class 3 items.

Recommendation is to test all equipment for proper operation and repair or replace as needed.

Observed electric unit heaters, wall heaters and cabinet unit heaters appear to be original and in fair to good condition. These are Class 2 and Class 3 items.

Recommendation is to test all heaters for proper operation and repair or replace as needed.

Observed inline duct heaters appear to be original. Coils were not observed and most likely have experienced some degree of corrosion while being exposed to untampered conditions for the past 7 years. These are Class 2 items.

Recommendation is to test all heaters for proper operation, visually inspect coils and repair or replace as needed.

Observed black iron gas distribution piping appears to be original and is in poor to good condition with some piping having varying degrees of rust. These are class 1 and 3 items. Recommendation is to provide a pressure leak test. Brush off surface rust and replace piping sections that are heavily corroded with rust (Figure 13).



Figure 12 – Indoor pool gas fired water heater

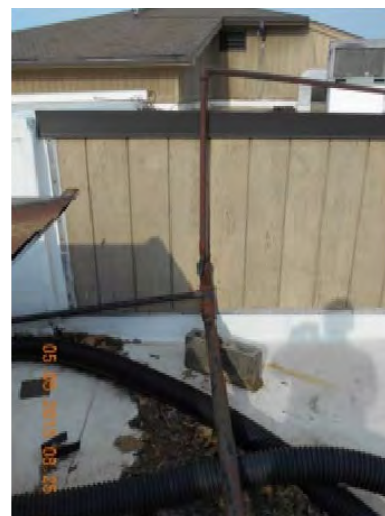


Figure 13 – Gas pipe routing to rooftop mechanical units

Observed gas valves and regulators appear to be original and in fair to good condition. These are Class 2 and Class 3 items.

Recommendation is to test all valves and regulators for proper operation and repair or replace as needed.

## **SECTION 12**

### **PLUMBING SYSTEMS**



## **PLUMBING TABLE OF CONTENTS**

- Building Plumbing System – General
- Laundry Room Plumbing System Components
- Indoor Pool Plumbing System Components
- Outdoor Pool Plumbing System Components
- Exterior Plumbing System Components
- Eagle’s Landing Plumbing System Components

## PLUMBING

### Background

Water service to the main hotel and conference center is provided by a 4" underground cold water (cw) line which enters the building in the mechanical room and into a meter and reduced pressure backflow assembly. From there the 4" cw main enters a 500 gallon surge tank and exits to serve the building. A 3" cw branch line is routed to the domestic hot water plant, which includes, two 200 gallon, 1826 MBH input, gas fired domestic water heaters, 300 gallon storage tank, brine tank, water softener and recirculation pump. A 3" hw main and 3" hwr main exit the hot water plant to serve the building. No domestic water booster pump was observed.

Observed domestic water distribution piping is copper.

Observed sanitary and vent piping is PVC. As-builts indicate an 8" underground sanitary main and a 4" kitchen waste main exit at the north-east corner underneath the golf storage room. The 4" kitchen waste enters an underground grease basin and then ties into the 8" sanitary main. Vent piping exits the roof at various plumbing stack locations.

With the exception of a flat roof mechanical yard, building roofs are pitched and storm drainage is provided with a gutter downspout system. The downspouts are hard connected to the underground drainage system. There is a 5" downspout serving the roof mechanical yard. The downspout exits the building at the lower east face and terminates at a splash block.

Observed plumbing fixtures include commercial, residential and kitchen. The majority of guest room plumbing fixtures have been removed. Toilet fixtures are openly stored at various locations inside the building (Figure 1).



Figure 1 – Water closets stored in open space

The Eagle's Landing building is served by an electric domestic hot water heater and associated hot water recirculation pump.

Observed domestic water distribution piping is copper. Sanitary and vent piping is located behind stucco walls and not observable.

## Findings and Recommendations

No domestic water booster pumps were observed.

Recommendation is to verify incoming building water pressure meets design requirements.

The main hotel and conference center domestic hot water boilers appear to be original and in poor condition (Figure 2). The burners and gas train assembly are heavily rusted. The Eagle's Landing electric domestic water boiler appears to be in good condition. The main resort domestic hot water boilers have exceeded their useful service life and are class 1 items. The Eagle's Landing electric boiler is a Class 3 item.

The recommendation is to replace the main resort building domestic water boilers with Department of Energy efficiency compliant condensing boilers sized to meet new building demand loads. Provide an operation and performance test on the Eagle's Landing boiler.

The domestic water surge tank appears to be original and is in poor condition with heavy corrosion (Figure 3). This is a Class 1 item.



Figure 2 – Hot water boilers



Figure 3 – Domestic water surge tanks

Recommendation is to replace in kind.

The domestic water softener system appears to have been replaced and is in good condition.

Recommendation is to coordinate this system with the new domestic hot water plant.

The hot water recirculation pump appears to have been replaced and has water stains, but otherwise appears to be in good condition.

Recommendation is to clean and test the pump for operation and design performance.



Observed water distribution piping appears to be original copper and is in good condition with some water staining in areas such as the mechanical room.

Recommendation is to provide a pressure leak test and clean water stained pipe.

Observed water valves appear to be original and in fair condition. Recommendation is to test all valves for proper operation and repair or replace as needed.

The grease basin appears to be original and in fair condition. Recommendation is to clean and remain.

Observed sanitary and vent piping appears to be original PVC and in good condition. Leakage was observed at a few connections.

Recommendation is to provide a pressure leak test and seal connections at leakage points.

Observed downspout piping appears to be original PVC and is in good condition. Recommendation is to provide a pressure leak test.

Plumbing fixtures, including lavatories, sinks, toilets, urinals, roof drains, floor cleanouts, etc., appear to be original and in poor to good condition. Bathroom and kitchen fixtures are nearing their useful service life and have dated styles. All kitchen and bathroom plumbing fixtures predate low flow requirements set forth by the 1992 Energy Policy Act.

Recommendation is to replace all bathroom and kitchen plumbing fixtures with modern styles meeting low flow energy requirements. Repair and replace floor cleanouts and roof drains as needed.

**SECTION 13**

**FIRE PROTECTION SYSTEMS /  
LIFE SAFETY**

## **FIRE PROTECTION SYSTEMS / LIFE SAFETY TABLE OF CONTENTS**

- Building Fire Protection System Components
- Exterior Fire Protection Components and Fire Pump Room
- Interior Fire Protection Components – Main Building
- Interior Fire Protection Components – Pool Building
- Eagle’s Landing Fire Protection Components



## FIRE PROTECTION AND LIFE SAFETY

### Background

The main hotel and conference center is provided with full fire protection sprinkler coverage. The majority of the building is protected by a wet sprinkler pipe system with small areas having specialized fire protection including dry system coverage and kitchen hood coverage.

The main hotel and conference center has two exterior fire department connections. In addition the fire pump house has an exterior fire department connection.

Fire protection water is provided by two 15,000 gallon underground tanks located adjacent to the fire pump house. Post indicator valves are located above each tank (Figure 1). As-built drawings indicate that the two underground tanks are tied together with a common pipe header which rises vertically through a manhole inside the fire pump house and into a vertical in-line fire pump driven by a 75 HP motor (Figure 2). There is no name plate on the fire pump. In addition there is a jockey pump located in the house. The fire pump controller is located in the mechanical room of the main building. Additional backup fire protection is provided by a 4" underground main which tees off of the incoming 4" domestic building water service and ties into the fire main inside the fire pump house via a reduced pressure backflow assembly. From the fire pump house the 8" fire main drops underground where it is routed to the main building.



Figure 1 – Post indicator valves located above underground water tanks



Figure 2 – Fire pump

A fire pipe branch feeds the three hose test header located on the exterior of the fire pump house (Figure 3). A control valve and flow switch is provided at both the main building and test header feeds. There is also a fire alarm bell located on the Fire Pump House exterior (Figure 4).



Figure 3 – Fire department test header



Figure 4 – Fire alarm bell

The 8" fire main enters the main hotel and conference center in the east lower level and serves the building via seven zones. Each pipe branch zone is fitted with a control valve and tamper proof flow switch. There are two 4" stairwell standpipes with 2 ½" valved fire department connections at each floor landing. There is one 6" combined standpipe with fire branch zones at each floor.

Building sprinkler heads are a combination of exposed pendent type, recessed, exposed, sidewall and upright depending on room architecture. All sprinkler head fuses have been removed (Figure 5).



Figure 5 – Sprinkler head with fuse removed located in main hotel

The Eagle's Landing building is provided with full fire protection wet sprinkler coverage. The fire protection system appears to be located in the attic space. An attic access point was not observed, but based on no visible signs of water damage and the good condition of similar equipment observed in the interior of the more recently constructed Eagle's Landing, the fire protection equipment is most likely in good condition and will only need a pressure leak test.

## Findings and Recommendations

Observed exterior building components including, post indicating valves, fire alarm bell, fire pump test header and fire department connections appear to be original and in fair condition. These items need to be tested to verify proper performance.

The fire pump and jockey pump and fire pump controller appear to be original and in fair condition. There was no pump testing information on site. **The fire pump controller is not in the fire pump house, but located in main building mechanical room, which is violation of NFPA 20.** Fire pump controller must be within sight of the motor. This equipment appears to be at the end of its useful estimated service life, and it is recommended to be replaced and located in a manner compliant with NFPA 20.

Observed fire protection piping appears to be original and is in poor to good condition. Piping located in the pool room is heavily corroded and with the recommendation to replace. It is recommended that piping located in the main hotel and Eagle's Landing have surface rust brushed off and a pressure leak test performed.

Observed sprinkler heads appear to be original. All sprinkler head fusible links in all buildings have been removed. The recommendation is to replace all sprinkler heads.

Observed control valves and flow switches appear to be original and in good physical condition, but operating condition needs to be tested. Equipment appears to be at the end of their useful estimated service life and it is recommended to be replaced

Observed sprinkler dry system components appear to be original and in good physical condition, but operating condition needs to be tested. Equipment appears to be at the end of their useful estimated service life and it is recommended to be replaced.

Observed kitchen hood sprinkler system components appear to be original and in fair physical condition. Equipment appears to be at the end of their useful estimated service life and are recommended to be replaced.



## **SECTION 14**

# **ELECTRICAL SYSTEMS**

## ELECTRICAL SYSTEMS

### BACKGROUND

#### Main Electrical Services (Existing)

The facility is fed by two electrical services. The first source is the existing utility transformer (Figure 1) and the second is a 750KW, 277/480 volt, 3 phase 4 wire emergency generator (Figure 2). Both services are connected to an existing 2500 Amps, 277/480 volts, 3 phase, 4 wires Automatic Transfer Switch (ATS) (Figure 1). The service feeder cables from the utility transformer and the generator are run via a cable trench and connected to the normal and emergency sides of the ATS respectively. The cable trench is filled with water and the services cables are submerged.



Figure 1 – Utility transformer and automatic transfer switch



Figure 2 - 750kW Diesel Generator

Based on review of the original electrical design plans it was determined that the existing ATS and generator were added at some point after the original construction. The generator appears to be in relatively good condition based on visual inspection. The generator has sat idle for a number of years. Some of the replacement parts had the year 2012 hand written on them, which would indicate that the generator has not been serviced recently. Finally, there was an audible alarm going off during the site visit.

The service cables from the generator and the utility transformer run through a metal trench with a cover (Figure 3). The gasket/caulking has failed and the feeder cables are submerged in water. Water can also be seen in the conduit space of the ATS (Figure 4).

In addition to feeding the ATS, the two electrical services also feed the existing Fire Pump. Please refer to the Mechanical Section of this report for the Fire Pump assessment.



Figure 3 – Metal trench with service feeder cables



Figure 4 – Service feeders submerged in water

## Electrical Distribution System (Existing)

### Service Switchboard - Main Switchboard Room (Room PL-20)

The load side of ATS is connected to the 2500 Amps 277/480 volts, 3 phases, 4 wires Service Switchboard, which is located in basement in the Electrical Room (Figure 5). The feeder cables are in concrete encased conduits from the ATS to the switchboard. These conduits are also filled with water and water can be seen in the conduit space below the switchboard (Figure 6). In addition, there is 4 inches of corrosion along the perimeter of the switchboard providing evidence that water has infiltrated the switchboard via the conduit system.



Figure 5 – 2500 amp, 277/480VAC main switchboard with corroded base



Figure 6 – 2500 amp, 277/480VAC main switchboard with submerged service feeders

This Electrical Room is filled with materials and supplies. These materials should be removed from the Electrical Room and properly stored.

The switchboard was installed during the original construction, which makes the unit approximately 25 years old. It also appears that the breakers in the switchboard are also part of the original installation.

### Panelboards and Power Distribution Transformers

The Service Switchboard feeds several 277/480VAC, 3 Phase, 4 wire panelboards, which feeds electrical equipment throughout the facility including step down transformers. The transformers feed several 120/208 VAVC panelboards, which also feed other equipment throughout the facility.

There are three Electrical Rooms that house the majority of the power distribution equipment that feeds the individual floors in Wing A and Wing B. The rooms are designated as follows and are located in the B Wing:

- Lower Level Electrical Room (Room BL-57)
- First Floor Electrical Room (Room B1-56) (Figure B3)
- Upper Floor Electrical Room (Room BU-28)

In general, the majority of the electrical panels appear to be in good condition. The panelboards were installed as part of the original construction and the equipment has set idle for several years. More importantly, the circuit breakers have not been operated and have been subject to an unconditioned environment. Therefore, operational condition and performance is a concern.

The feeder cables running to the panelboards and various loads are run in conduit. However, the branch cables to the individual rooms are not run in conduit.

The electrical rooms in general are in good condition. Some general maintenance and cleaning of the rooms is required. Some loose wires should be neatly trained and supported properly. Proper labeling of equipment, conduit, cables etc. is required. (Figure 8)



Figure 7 – First floor electrical room



Figures 8 – Wires dangling in ceiling



The electrical panels serving the inside swimming pool are corroded. All electrical equipment including conduit and wires in this area should be replaced. Electrical equipment subject to this environment should be rated NEMA 4X. Refer to the Pool Section of this report for additional details (Figures 9 and 10).



Figures 9 – Indoor swimming pool panelboard

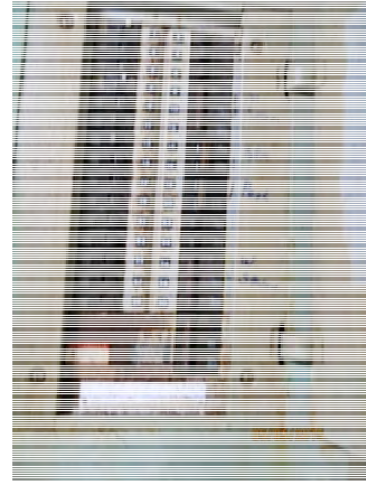


Figure 10 – Indoor swimming pool panelboard interior

The electrical panel serving the outdoor swimming pool is corroded and its cover is missing. All electrical equipment including conduit and wires in this area should be replaced. Electrical equipment subject to this environment should be rated NEMA 4X. Refer to the Pool Section of this report for additional details. (Figures 11 through 14)



Figure 11 –Outdoor swimming pool panelboard



Figure 12 – Swimming pool water heater



Figure 13 – Water pump purifier



Figure 14 – Water pump for spa

### **Building Interior Lighting and Power System (Existing)**

#### **Miscellaneous Rooms and Public Areas Lighting (Figures 15 through 40)**

It appears that the majority of the lighting fixtures throughout the facility were installed as part of the original construction and thus exceed their normal useful life. In general, light fixtures used in the public areas such as corridors, stairwells, utility rooms and laundry room are fluorescent type with T-12 bulbs, which are very inefficient by today's standards.

The Exit Signs also use inefficient lamps and it is assumed that their battery packs are no longer working properly since the building has set idle for so long.

The Main Entrance consists of recessed and wall mounted incandescent lighting fixtures, which are very inefficient. In addition, there are no signs of local lighting control such as motion detectors.

The Lobby consists of specialty pendant lighting fixtures with incandescent miniature candelabra bulb, and recessed type incandescent fixtures mounted in the drop ceiling. In addition, there are no signs of local lighting control such as motion detectors or a master lighting controller.

The Banquet Rooms consist of pendant lighting fixtures with miniature incandescent candelabra bulb and recessed parabolic troffer fluorescent fixtures. On-off rotary dimmer switches control the lights.

The Kitchen consists of surface and recessed fluorescent light fixtures with T-12 lamps.

The Lounge/Recreation Room consists of surface mounted fluorescent fixtures with parabolic troffers with T-12 lamps and recessed parabolic fluorescent fixtures with T-12 lamps.

The Indoor Swimming Pool consists of pendant and ceiling mounted lighting fixtures.





Figure 15 – Utility room corridor lighting



Figure 16 – Stairwell fluorescent lighting



Figure 17 – Typical electrical room lighting



Figure 18 – Main switchboard room lighting



Figure 19 – Entry canopy lighting



Figure 20 – Entry canopy to main lobby



Figure 21  
Reception Area Lighting



Figure 22  
Main Lobby Lighting



Figure 23 – Banquet areas: pendant and recessed lighting fixtures



Figure 24 – Banquet areas: pendant and recessed lighting fixtures



Figure 25 – Banquet area rotary dimmer switches



Figure 26 – Banquet area rotary dimmer switches





Figure 27 – Kitchen storage lighting



Figure 28 – Kitchen freezer lighting



Figure 29 – Kitchen food prep lighting



Figure 30 – Kitchen office lighting



Figure 31 – Lounge area lighting



Figure 32 – Recreation area lighting



Figure 33 – Meeting room lighting



Figure 34 – Meeting room lighting



Figure 35 – Indoor swimming pool – pendant incandescent fixtures



Figure 36 – Indoor swimming pool – pendant incandescent fixtures



Figure 37 – Indoor swimming pool – pendant incandescent lighting fixtures



Figure 38 – Indoor swimming pool – pendant incandescent lighting fixtures





Figure 39 – Pendant incandescent lighting fixtures



Figure 40 – Exercise room lighting

### Hotel Guestrooms Lighting and Power (Existing)

The majority of the lighting fixtures in the hotel guestrooms have been removed. The junction boxes remain with exposed wires and insulated terminal caps. The branch wiring consists of non-metallic-sheathed cable that runs from the ceiling or wall outlets back to a local lighting panelboard. The general condition of the existing wiring cannot be ascertained by visual inspection. Continuity and high-pot testing of the cable would be required to determine condition of the cables and if circuits have been maintained.

Existing outlets and wall switches in the guestrooms have been left installed in their outlet boxes. If the drywall has been removed then the individual device cover plate has also been removed. The existing non-metallic sheathed cables run from outlet box to outlet box through the wall studs and back to a local panelboard. Continuity and high-pot testing of the cable would be required to determine condition of the cables and if circuits have been maintained. New code requirements for outlets will necessitate their replacement (Figures 41 through 49)

The guestroom mechanical units have been removed from the majority rooms (Figure 50). New electrical wiring and devices will be required. Refer to Mechanical Assessment Section of this report for additional details regarding mechanical units.





Figure 41 - Typical open wall for every hotel room – electrical outlets with non-metallic sheathed cable installation



Figure 42 - Typical open wall for every hotel room – electrical outlets with non-metallic sheathed cable installation



Figure 43 - Typical Open Wall



Figure 44 - Typical Suite Foyer



Figure 45 - Typical Bathroom Wall



Figure 46 - Typical Bathroom Ceiling



Figure 47 - Typical Ceiling Mounted Smoke Detector



Figure 48 - Typical Suite Closet Light



Figure 49 - Typical Suite Closet Fixture



Figure 50 - Typical power outlet for Mechanical Unit

### Site Lighting (Existing)

Based on review of the original design plans, it appears that most of the site lighting is part of the original construction. The site lighting can be grouped into the following areas:

**Parking Lots:** The North, East and West parking lot lights consist of 30' high poles with rectangular type light fixtures and HID lamps. There is some evidence of rusting along the base of some of the poles (Figure 51).

The pathway leading to the boat dock area consists of square bollards and 10' high light poles with rectangular type fixtures and HID lamps. Three existing bollards have been pulled out of the ground (Figures 52, 53 and 54).





Figure 51 - Typical 30'-0" Pole Lighting



Figure 52 - Typical Square Bollard Fixture



Figure 55 - Typical Boat Dock Lighting



Figure 54 - Bollard Fixture Rooted-up

The Outdoor Swimming Pool lighting fixtures consisting of 30' high light poles with two fixtures and HID lamps. There is also a speaker mounted in the middle of the lighting poles (Figure 55).



Figure 55 - Typical Outdoor Swimming Pool Flood Light HID Fixtures  
Building perimeter wall mounted fixtures need to be replaced (Figures 57 and 58).



Figure 56 - Swimming Pool – Recessed with Gasket Fixture





Figure 57 - Building Perimeter Incandescent Wall Sconces



Figure 58 - Building Perimeter Incandescent Wall Sconces

### Telephone System (Existing)

The existing incoming telephone service is fed from the telephone outdoor HUB (Figure 59). An ISO 25/125 telephone cable runs in the ceiling and loops down to the Telephone Equipment Enclosure located in the Equipment Room (Room P1-23) adjacent to the Main Lobby.



Figure 59 - Existing Telephone Service

The existing telephone system consists of:

- Nextel SX 200 digital telephone switch (Figure 60),
- Hub enclosure (Figure 61),
- A rack mounted patch panel,
- Branch wiring is distributed above the drop ceiling to the individual guestrooms in Building Wings "A" & "B" and to the rest are for miscellaneous rooms requiring telephone service.
- The existing telephone jacks and cover plates have been removed from all the guestrooms. The individual telephone wires are coiled in their respective outlet boxes (Figures 63 and 64).



Figure 60 - Existing Main Telephone Server (SX 200 Digital)



Figure 61 - Existing Telephone Hub Panel



Figure 62 - Existing Main Telephone Distribution System



Figure 63 - Typical Guestroom with Back-to-Back Telephone Outlets with Coiled Telephone Wires



Figure 64 - Typical Guestroom with Back-to-Back Telephone Outlets with Coiled Telephone Wires

## Fire Alarm System (Existing)

The existing Fire Alarm System is non-addressable analog type. The existing Fire Alarm Panel is located in the Equipment Room (Room P1-23) adjacent to the Main Lobby (Figure 65). The individual fire alarm devices are connected to the fire alarm panel via cables, which are not run in conduit. The individual fire alarm devices are mounted throughout the facility as described below.

Smoke detectors in public corridors and lobbies are hanging by their wires and laid on ceiling grid (Figure 66).



Figure 65 - Existing Main Fire Alarm Panel



Figure 66 - Existing Smoke Detector In Public Corridor

Smoke detectors in electrical rooms are surface mounted in ceiling with exposed wirings.

The pull station with audio alarms is installed at exit locations (Figure 68).

In the guestrooms the smoke detectors are mounted in ceiling and visual enunciators are mounted on the walls (Figures 69 and 70).

Based on the fact that the system has been abandoned and demolition work has been completed without properly protecting devices, there is a high likelihood that devices will not perform to manufacturers specifications. In addition, a new code compliant system will be required.





Figure 67 - Existing Smoke Detector Adjacent To Elevator Lobby



Figure 68 - Existing Manual Pull Station



Figure 69 - Typical Smoke Detector in Guestroom



Figure 70 - Typical Audio Visual Alarm

### **Cable TV System (Existing)**

The existing TV System consists of two existing satellite dishes mounted in the roof on Building Wing "A" and Building Wing "B" (Figures 71 and 72). Coax cables are pulled from the top floors down to the ground floors creating a riser system. Typically, a maximum of 6 guestrooms are connected to a single riser cable via a series of splitters. The satellite system electronics could not be located and it is assumed they have been sent back to the satellite service provider.

The individual coax cables are pulled to drywall mud rings located in the guestrooms where the cables are connected to a splitter and a coax cable connector. The individual device covers have been removed from the mud ring and the cables and splitters have been left dangling (Figures 73 and 74).



Figure 71 - Existing Cable TV Dish Antennae



Figure 72- Existing Cable TV Dish Antennae



Figure 73 - Typical Existing Cable and TV Outlets Location in Guestrooms



Figure 74 - Typical Existing Cable and TV Outlets Location in Guestrooms

### **Public Address (PA) System (Existing)**

The existing PA System consists of the main head-end equipment and speakers distributed around the facility as described below:

- The existing head-end equipment is located in the Equipment Room (Room P1-23) adjacent to the Main Lobby (Figure 75).
- Interior sound system speaker are located in the corridor lobby elevator, game room, meeting rooms, and banquet room (Figures 76 through 79).
- Exterior sound system speakers are located in the swimming pool area (in perimeter wall and light pole mounted in the middle – Figures 80 through 82).

It appears the system was installed as part of the the original construction and has reached its useful life.





Figure 75 - Existing Main PA System



Figure 76 - Existing PA Speaker – Lobby



Figure 77 - Existing PA Speaker - Corridor



Figure 78 - Existing PA Speaker - Corridor



Figure 79 - Existing PA Speaker – Restaurant



Figure 80 - Existing PA Speaker – Perimeter





Figure 81 - Existing PA Speaker –  
Outdoor Swimming Pool Area



Figure 82 - Existing PA Speaker –  
Outdoor Swimming Pool Area

### **Security System**

Based on the review of the original design drawings, it appears the existing security system was essentially used for access control at the Front Desk and was also monitored by an alarm company. No security cameras were seen around the perimeter of the facility.

## **SECTION 15**

**ADA**

## AMERICANS WITH DISABILITIES ACT (ADA)

### ACCESSIBILITY COMPLIANCE

The property was analyzed for general conformance with the current Illinois Accessibility Code, The International Building Code 2012, and the 2010 Americans with Disabilities Act Standards for Accessible Design (ADAAG 2004). Observation was intended to identify major issues in need of attention and renovation in regard to accessibility and is not a comprehensive ADA analysis of all compliance requirements.

Transient hotel facilities that are altered and contain more than five (5) sleeping units are required to be accessible and usable to individuals with disabilities. Public assembly, recreational, and dining facilities that are altered are required to be accessible and usable to individuals with disabilities, essentially all areas of the facility.

A minimum of five percent of hotel units and not less than one unit must be accessible to mobility impaired individuals. In places of lodging with 50 or more sleeping rooms or suites, roll-in showers shall be provided in accordance with ADAAG Chapter 8 and IAC 400.320(g). Sleeping rooms with accommodations for persons with hearing and vision impairments shall be provided. In addition hotel common, public, and service spaces must be accessible to individuals with disabilities.

The associated “Abbreviated Accessibility Survey” is included as a quick reference of the ADA issues.

#### Site Accessibility

##### Observation & Features:

The parking area (approximately 310 spaces total) has the required number of accessible spaces; however, parking striping and signage is faded and/or must be upgraded. There are no “van accessible” spaces. Accessible spaces are distributed in three (3) separate areas; however, none provide a proper accessible path to the building. Paths are either not direct or do not have required proper curb ramps and markings at sidewalks and roadways. There are no detectable warnings at roadways or other vehicle traffic areas.



Typical ADA Parking Space



Ramp



Separate Eagle's Landing hotel building has no accessible parking spaces.

**Exterior Accessible Route:**

The accessible route leading from the hotel site to the pool and mini-golf areas and various off-site amenities appear to have proper slopes and widths per code. There are no observed detectable warnings along any part of the accessible route where pedestrian walks intersect with vehicular traffic. Where accessible routes exceed maximum slope requirements a handrail has been installed. However, handrails must be upgraded per current code requirements (handrails must have straight 12 inch extensions at top and bottom of ramp).



Eagle's Landing



Note Exterior Ramp

**Exterior Recreation Facilities:**

Comprehensive investigation of the miniature golf facility will be required to determine compliance with accessibility codes however casual observance suggests that the required accessible path along the courses does not have proper widths, slopes, "start of play" space, etc., for the required 50% of holes provided.

Exterior swimming pool does not have two (2) required accessible means of entry. Existing means of entry (stairs/ladders) cannot be classified as a "primary" means of entry as they are neither a sloped entry nor a swimming pool lift. Existing pool stairs also do not meet current requirements as the secondary means of entry as they do not meet all requirements for pool stairs with regards to tread size and handrail requirements.



Mini-Golf



Outdoor Pool

### Accessibility of Interior Public Spaces

#### Entry Vestibule and Lobby:

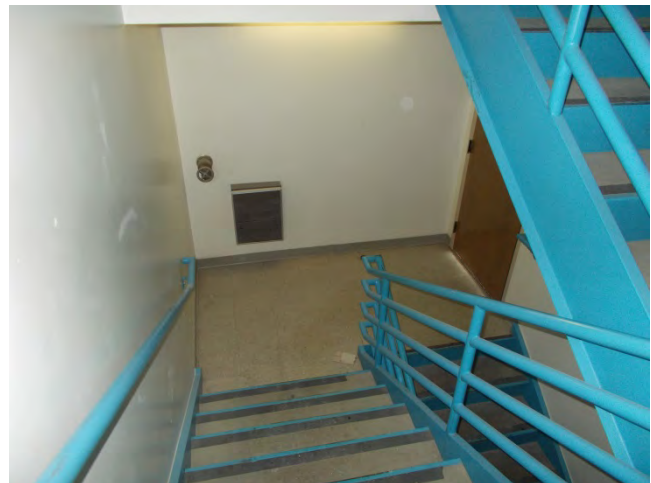
The entry vestibule is adequately sized to meet door swing clearance requirements per code. An accessible height counter is not provided at the front reception desk.

#### Stairwells:

The stairwells typically meet riser and tread size requirements and have proper handrail configurations on each side of stair stringers. However, areas of rescue assistance are not provided at floors that do not exit to grade.



Lobby Reception Counter



Typical Interior Stair

## Signage:

Typically signage is mounted on the door and not on the wall adjacent to the door's latch as required by code. Signage does contain raised braille characters but text and pictograms are often faded to the point of no longer properly contrasting with the background sign color. International symbol of accessibility is not properly indicated in some areas where required. This is applicable to the elevator call buttons, as well.

## Drinking Fountains:

Drinking fountains are provided only at the lower floor adjacent to the restroom entrance. Drinking fountains formerly located outside the first floor restrooms have been removed. Where drinking fountains are present they are both installed at the same height (ADA height), no drinking fountain is installed at the proper height for a standing person.



Toilet Room Access



Drinking Fountains

## Public Restrooms:

Clearances at restroom entries and within restrooms meet accessibility requirements typically. One toilet stall in each public restroom is designated as accessible. Clearances around and within accessible toilet stalls appear adequate; however, grab bar configuration must be updated per current codes. Lavatory heights and clearances are compliant. Additionally in each men's restroom one urinal is mounted at accessible height.

Connected to each of the lower level men's and women's restrooms are locker and shower rooms. These areas do not have adequate wheelchair maneuvering clearances nor are accessible showers provided.





Typical Public Toilet



Shower Area

## Elevators

Elevator replacement will require the following ADA features: compliance with ASME A17.1 (1990), hall call buttons at correct height with visual and audible signals, raised and braille signage, adequate wheelchair space within cab for entry / exit and maneuvering, floor surface treatment, car controls are audible, visual and tactile, emergency communication, to name a few required features.

## Accessibility of Guestrooms

Five (5) rooms have been designated as accessible however there are several issues with these rooms that do not meet current accessibility requirements. Notably there is no unobstructed turning space provided within the accessible guestroom's toilet room. Additionally, maneuvering clearances at the guestroom's entry door and toilet room door are inadequate.

Fixtures, casework, and accessories have typically been removed from guestrooms however additional reconfiguration of existing stud walls and doors will be required to meet accessibility codes.

Five percent (5%) of all types of guestrooms are required to be accessible. There are currently 120 standard guestrooms, 5 of which are considered accessible. In addition to those 5 being brought up to current accessibility codes, 1 additional standard room will be required to be accessible for a total of 6 standard accessible guestrooms. There are currently no accessible hotel suites. One (1) hotel suite is required to be accessible. Two (2) of the 7 total accessible rooms require a roll-in shower for individuals in wheelchairs.

The current "accessible" guestrooms were designed with fire alarm visual and audible devices.

Abbreviated Accessibility Survey				
Item	Yes	No	N/A	Comments
<b>A. Building History</b>				
1				Not known
2				Not known
3				Not known
4				Not known
5				Not known
6				Not known
<b>B. Parking</b>				
1	X			Parking stripes are significantly faded throughout the parking lot but the existing parking lot configuration is mostly intact as per the original design. Original design had 317 total parking spaces, 10 of which were accessible and properly sized. This exceeds the required number of accessible spaces per IAC 400.310(c) and ADAAG 4.1.2(5)(a).
		X		One in every eight but not less than one parking space shall be designated "van-accessible". 2 required.
3		X		2 of the 8 accessible spaces have signage however signage must be upgraded to display current fine amounts and indicate "Van Accessible" parking spaces.
4		X		North grouping of accessible spaces (3 total) has a curb ramp providing an accessible path from the parking lot to the main building entry. However path to main building entry is circuitous and leads across several paths of high traffic. The central grouping of accessible spaces (5 total) has no curb ramp along the sidewalk leading to the main entry (as was shown in original design drawings). The south group of accessible spaces (2 total) have been completely eliminated and replaced with equipment however the path from these spaces to the south patio and golf shop appears to be mostly accessible with the exception of one small step between the asphalt paving and the sidewalk.
5				There is one ramped curb cut at the north group of accessible spaces. The only curb ramp along the building perimeter is the walk leading to the main building entry. 1 inch step from parking lot to south patio should be alleviated.
6		X		None is apparent.
<b>C. Ramps</b>				
1	X			Ramp to main entrance appears to be 1:12 or less. Ramp also appears to be less than 5% (1:20) which would negate the requirement for railings.
2			X	There are no railings required at the main entrance. Ramp appears to be less than 5% (1:20) and therefore would not require railings.
3			X	There are no railings required at the main entrance.
4			X	There are no ramps requiring landings or switchbacks.
<b>D. Entrances/Exits</b>				
1	X			
2			X	
3	X			There is an accessible entrance to the lower level golf shop which is connected to the main hotel corridor. There is an accessible entrance to the indoor pool. There is an entrance to the lower level cantina which is not accessible due to improper hardware (see below).
4				Main entry doors, golf shop entry door, indoor pool door have required hardware, cantina door does not. Numerous doors throughout the building interior do not have required accessible hardware including stair exit doors.
5	X			
6	X			

E. Paths of Travel				
1	Is the main path of travel free of obstruction and wide enough for a wheelchair (at least 36 in. wide)?	X		
2	Does a visual scan of the main path of travel reveal any obstacles (phones, fountains, etc.) that protrude more than 4 in. into walkways or corridors?		X	
3	Is at least one wheelchair-accessible public telephone available?	X		
4	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?		X	In most cases signage is on the door as opposed to the wall as required by IAC 400.310(u)(5). Signage does not always contain International Symbol for Accessibility as required. Many signs are faded beyond ability to achieve proper visual contrast between text and background color. Some signage is missing completely.
5	Is there a path of travel that does not require the use of stairs?			Ground and lower level floors: the only egress paths that are accessible are doors at grade. There are no rescue assistance areas at any of the exit stairs required per IAC 400.310(4). There is no signage differentiating between accessible and non-accessible egress paths. There are no accessible rooms on the upper floor and no accessible egress paths from the upper floor to ground level.
F. Elevators				
1	Do the call buttons have visual signals to indicate when a call is registered and answered?	X		
2	Is the "UP" button above the "DOWN" button?	X		
3	Are there visual and audible signals inside cars indicating floor change?	X		
4	Are there standard raised and Braille markings on both jambs of each hoistway entrance?	X		
5	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?			Not known
6	Do elevator lobbies have visual and audible indicators of car arrival?		X	No visual indicator of elevator location location.
7	Are elevator controls low enough to be reached from a wheelchair (46 in. front approach/54 in. side approach)?	X		
8	Are elevator control buttons designated by Braille and by raised standard alphabet characters (mounted to the left of the button)?			Not known
9	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?			Not known
G. Toilet Rooms				
1	Are common-area public toilet rooms located on an accessible route?	X		
2	Are door handles push/pull or lever types?	X		
3	Are there audible and visual fire alarm devices in the toilet rooms?		X	
4	Are corridor access doors wheelchair-accessible (at least 32 in. wide)?	X		
5	Are public toilet rooms large enough to accommodate a wheelchair turnaround (80 in. turning diameter)?			
6	in unisex toilet rooms, are there safety alarms with pull cords?			X
7	Are toilet stall doors wheelchair-accessible (at least 32 in. wide)?	X		
a.	Are grab bars provided in toilet stalls?	X		Grab bars are provided but are not sized/positioned per current code requirements IAC 400.310(n) and ADAAG 4.22.4.
9	Are sinks provided with clearance for a wheelchair to roll under (29 in. clearance)?	X		
10	Are sink handles operable with one hand without grasping, pinching, or twisting?	X		
11	Are exposed pipes under sinks sufficiently insulated against contact?			Not in all cases.
H. Guestrooms				
1	Are there sufficient reported accessible sleeping rooms with respect to the total number of reported guestrooms?		X	There are 130 total guestrooms. There are currently 5 accessible room. Currently only 1 type of room is accessible and none of the suites are. Accessible room does not have all of the required maneuvering clearances to meet current IAC rules. The accessible rooms are only on the 1st and 2nd level. There are none on the 3rd level. Accessible suites are not properly dispersed per IAC 400.320(g)(4) and ADAAG 9.1.4.
2	Are there sufficient reported accessible rooms with roll-in showers with respect to the total number of reported accessible guestrooms?		X	No rooms have roll in showers as required by IAC 400.320(g)(2)(B).



Current Hotel Room Quantities				
	Lower Floor	First Floor	Second Floor	Total
Standard Hotel Room	37	36	42	115
Standard Hotel Room (Accessible)	2	3	0	5
Hotel Room Suite	2	4	4	10
Hotel Rooms Suite (Accessible)	0	0	0	0
<b>Total</b>	<b>41</b>	<b>43</b>	<b>46</b>	<b>130</b>

Required Accessible Hotel Rooms			
	Required	Actual	
Standard Hotel Room (5% of Total*)	6	5	1 additional required
Hotel Rooms Suite (5% of Total*)	1	0	1 required
Rooms with Roll-In Showers (1 for every 100 Rooms*)	2	0	2 roll-in Showers required

\*Illinois Accessibility Code Section 400.320(g)

**SECTION 16**

**ENVIRONMENTAL**

## ENVIRONMENTAL

### **Background:**

The Eagle Creek Resort complex was constructed in 1989 and closed of all activity, excluding golf, in 2009.

The State undertook abatement of interior building materials within the two hotel wings in 2011 that were tested and observed to contain mold. It appears that this task was not completed and has now been abandoned.

The materials removal included; gypsum drywall, batt insulation, various interior finishes such as wallcoverings, carpeting, floor tile and various wood trim. The hotel wings have been stripped of materials both in rooms and corridor and have exposed the wood stud wall framing. Plumbing fixtures remain in place as do the electrical devices. It is doubtful that as a follow-up the air quality was not re-tested upon completion of this abatement task. GEC was not in possession of any environmental clean-up documentation so details of the work cannot be verified but only observed.

### **Conditions:**

The findings are based upon observed conditions, sampling was not obtained nor was laboratory analysis of site samples conducted to confirm or disprove type and extent of contaminants.

The environmental conditions within the resort complex are exhibiting a high level of contamination. Observations include the following primary areas.

#### Hotel Wings:

As noted, interior materials removed exposing wood framing. No ventilation observed.

#### Lobby, Dining:

Most interior finishes are intact and likely will contain mold due to lack of ventilation, acoustical ceilings deteriorated and water damaged (likely due to improper roof patching).

#### Banquet Areas:

Very stale air quality, heavily water damaged acoustical ceiling tile, carpet intact with mold likely, wall finishes stripped in some areas and mold growth observed, furniture and equipment stored in these areas.

#### Lower Level:

Some abatement started but not completed, carpet intact and heavily soiled, no ventilation, maintenance areas contaminated as are the public toilet areas (fixtures remain in place), auditorium seating and carpet in place, mold observed throughout. Most interior finishes remain in place. Laundry room equipment in place and heavily soiled. Water damaged ceiling tile throughout some of which has collapsed. Debris scattered throughout.



#### Kitchen Area:

This area, with all kitchen equipment remaining in place, exhibited the most severe environmental conditions, from observed rodents, mold and likely numerous public health issues as well. It appears no attempt to remove movable equipment of food stains, grease or general kitchen related dirt was made. Ceilings are heavily soiled and water damaged throughout.

#### Indoor Pool:

By nature of its original function ventilation was a key component of controlling the indoor environment, and was stopped in 2009. The pool itself will require a comprehensive examination and equipment testing (See pool report), which will include disinfecting all pool systems that support it. Interior materials are exhibiting mold and metal objects corrosion. Exposed wood trusses may contain mold.

#### **Findings and Recommendations:**

**GEC does not recommend people walk through the various areas of the hotel complex without proper air filtration masks or similar approved devices.**

Sampling and laboratory analysis will further define type and extent of environmental contaminants throughout, and once verified these materials will need to be cleaned, removed and likely replaced with new. These include substrate materials such as gypsum board walls and materials above suspended ceilings.

Overall the areas observed with the most severe environmental issues are the kitchen (and kitchen support) areas, indoor pool and banquet rooms.

## **SECTION 17**

### **APPENDIX**

## APPENDIX A

### COST ESTIMATE SUMMARY

Based upon the assessment survey, understanding of physical condition, and information obtained, the following are opinions of probable cost to repair or replace the original physical deficiencies documented and to return the facility to closely represent its original built state. The opinions of cost are to assist the State of Illinois and IDNR in developing a general understanding of the condition of the property known as Eagle Creek Resort, and establishing a preliminary budget.

The projected costs are for physical deficiencies and do not attempt to classify a detailed renovation program, proposed improvements or enhancements to reposition the property in the market place.

Costs are current market values within a one- or two-year period. Escalation and market factors will have obvious effects to the budget over time.

Cost estimate excludes such items as: professional fees, permits, air or environmental testing, overtime work, phasing strategies, or escalation factors. We have incorporated a contingency value to anticipate unknown conditions that will be encountered with a project of this type and magnitude.

<b>DISCIPLINE</b>	<b>AMOUNT</b>
1. Civil – Site	\$431,886.00
2. Building Envelope / Interior and Exterior (includes Pool, Kitchen, Elevators and Environmental)	\$7,744,465.00
3. Mechanical Systems	\$939,049.00
4. Plumbing Systems	\$654,502.00
5. Fire Protection / Life Safety Systems	\$214,825.00
6. Electrical (includes Lighting, Power, Phone, Cable, PA, Security Systems)	\$2,361,832.00
<b>SUBTOTAL</b>	<b>\$12,346,559.00</b>
General Conditions, OH&P @ 20%	\$2,469,312.00
<b>SUBTOTAL</b>	<b>\$14,815,871.00</b>
Contingency @ 20%	\$2,963,174.00
<b>GRAND TOTAL</b>	<b>\$17,779,045.00</b>



**Eagle Creek Resort Assessment Civil / Site Improvements**

Area	Description	Quantity	Unit	Unit Cost	Subtotal	Comments / Notes
1. General	Site Signage	30	EA	\$ 250.00	\$ 7,500.00	Engineers estimate - replace apx 20 - 30 small signs
2. General	Landscaping	1	LS	\$ 50,000.00	\$ 50,000.00	
3. General	Sidewalk Repairs	3500	SF	\$ 4.00	\$ 14,000.00	Primarily sealing and minor repairs to asphalt sidewalks in front of hotel access road (apx 400 LF) and Eagle's Landing (Apx 150 LF). Could be deferred maintenance.
4. Access Road	Repaving / Overlay	375	SY	\$ 12.00	\$ 4,500.00	Assumes 25% total area is repaved - 1.5" asphalt overlay
5. Access Road	Crack repair / Pavement sealing	1125	SY	\$ 2.25	\$ 2,531.25	Assumes 75% total area is resealed - sealcoat
6. Access Road	Curb Replacement / Repair	200	LF	\$ 5.00	\$ 1,000.00	Assumes 25% is replaced - Asphalt type curb per existing
7. South Parking Lot	Repaving / Overlay	1750	SY	\$ 12.00	\$ 21,000.00	Assumes 50% repaved
8. South Parking Lot	Pavement sealing	1750	SY	\$ 2.25	\$ 3,937.50	Assumes 50% sealed
9. South Parking Lot	Striping per stall	70	EA	\$ 5.00	\$ 350.00	Rough estimate of space count
10. South Parking Lot	Striping per Handicap stall	10	EA	\$ 35.00	\$ 350.00	Rough estimate of space count
11. South Parking Lot	Light Pole Replacement	1	LS	\$ 10,000.00	\$ 10,000.00	Replace pole - assumes electrical feed and foundation is ok.
12. South Parking Lot	Fuel Tank Relocation & Spill Protection	1	LS	\$ 5,000.00	\$ 5,000.00	Engineer Estimate - assumes tank is simply relocated and spill protection berm or other minor protection provided.
13. North Parking Lot	Fence / Guardrail by cart building	1	LS	\$ 1,000.00	\$ 1,000.00	
14. North Parking Lot	Repaving / Overlay	1280	SY	\$ 12.00	\$ 15,360.00	Assumes 20% repaved
15. North Parking Lot	Pavement sealing	5120	SY	\$ 2.25	\$ 11,520.00	Assumes 80% sealed
16. North Parking Lot	Striping per stall	100	EA	\$ 5.00	\$ 500.00	
17. Backup Generator / Loading Dock Area	Striping per Handicap stall	10	EA	\$ 35.00	\$ 350.00	
18. Backup Generator / Loading Dock Area	Loading Dock structure replacement	1	LS	\$ 30,000.00	\$ 30,000.00	Includes demo of existing structure
19. Backup Generator / Loading Dock Area	Pavement sealing	600	SY	\$ 2.25	\$ 1,350.00	
20. Sidewalks and Concrete Patios	Grease tank Removal / Relocation	1	LS	\$ 5,000.00	\$ 5,000.00	
21. Mini Golf Area	General concrete repairs	225	SY	\$ 5.00	\$ 1,125.00	Minor repairs to patio in back of hotel
22. Eagle's Landing Area	Demo and regrade	2000	SY	\$ 12.00	\$ 24,000.00	Demo \$4/SY plus topsoil & seed @ \$8/SY
23. Eagle's Landing Area	Pavement sealing	4000	SY	\$ 2.25	\$ 9,000.00	
24. Eagle's Landing Area	Striping	150	EA	\$ 5.00	\$ 750.00	
25. Sanitary Sewer System *	Debris removal in parking lot	1	EA	\$ 5,000.00	\$ 5,000.00	
26. Sanitary Sewer System *	4" PVC from Hotel tank to Berry Pond Pump Station	4500	LF	\$ 15.00	\$ 67,500.00	Assumes new 4" PVC Pipe - Replaces entire line.
27. Sanitary Sewer System *	4" PVC from Pod to junction with Hotel line	1000	LF	\$ 15.00	\$ 15,000.00	Assumes new 4" PVC Pipe - Replaces entire line.
28. Sanitary Sewer System *	Misc fitting, valves	1	LS	\$ 10,000.00	\$ 10,000.00	
29. Sanitary Sewer System	Hotel Pump Station Pump replacement (if 4" line is used)	1	LS	\$ 50,000.00	\$ 50,000.00	Likely will need to replace pumps for change in system head curve.
	Eagle's Landing Sanitary MH / Pump Repairs	1	LS	\$ 25,000.00	\$ 25,000.00	Existing pumps appear to be inoperable. Required regardless of potential change to forcemain.
	Subtotal				\$ 392,623.75	
	Contingencies - 10%	10%			\$ 39,262.38	
	Total				\$ 431,886.13	

**Eagle Creek Resort Assessments  
Building Envelope Improvements**

Area	Description	Quantity	Unit	Unit Cost	Subtotal	Comments / Notes
30. Roof	Demolition and removal of existing asphalt roof shingles, EPDM roof and insulation, and roofing accessories	49830	SF	\$ 1.50	\$ 74,745.00	Remove 100% of roofing materials down to plywood substrate
31. Roof	Install new asphalt shingles	42700	100 SF	\$ 225.00	\$ 96,075.00	100%
32. Roof	Replace 50% 3/4" plywood underlay as needed	21350	SF	\$ 2.50	\$ 53,375.00	
33. Roof	Install new EPDM roof	7130	100 SF	\$ 255.00	\$ 18,181.50	100%
34. Roof	Install new closed cell spray insulation throughout attic spaces	49830	SF	\$ 3.50	\$ 174,405.00	100%
35. Roof	Install new gutters, downspouts, and flashings throughout	2000	LF	\$ 18.00	\$ 36,000.00	
36. Exterior Walls and Balconies	Demolition and removal of existing wood siding and trim	16425	SF	\$ 1.50	\$ 24,637.50	Remove 100% of siding and trim down to substrate
37. Exterior Walls and Balconies	Install new T111 plywood textured siding and trim	16425	SF	\$ 5.50	\$ 90,337.50	100%
38. Exterior Walls and Balconies	Finish siding and trim	16425	SF	\$ 1.00	\$ 16,425.00	
39. Exterior Walls and Balconies	Repoint all existing brick throughout	4500	SF	\$ 9.00	\$ 40,500.00	Including interior brick facades at indoor pool
40. Exterior Walls and Balconies	Replace 25% of face brick as required	1125	SF	\$ 25.00	\$ 28,125.00	
41. Exterior Walls and Balconies	Install new closed cell spray insulation on exterior walls	20925	SF	\$ 3.50	\$ 73,237.50	100%
42. Exterior Walls and Balconies	Miscellaneous concrete repairs at patios/walks	20000	SF	\$ 2.00	\$ 40,000.00	Includes balconies
43. Exterior Walls and Balconies	Refinish existing balconies guardrails	1200	LF	\$ 5.00	\$ 6,000.00	
44. Doors and Windows - Exterior	Install new storefront glazing at front entry	500	SF	\$ 35.00	\$ 17,500.00	
45. Doors and Windows - Exterior	Demolition and removal of exterior windows and sliding glass doors	182	EA	\$ 100.00	\$ 18,200.00	Remove 100% of windows and glass doors throughout
46. Doors and Windows - Exterior	Demolition and removal of exterior doors, frames and hardware	18	EA	\$ 100.00	\$ 1,800.00	Remove 100%
47. Doors and Windows - Exterior	Install new exterior hollow metal doors and frames	18	EA	\$ 2,000.00	\$ 36,000.00	
48. Doors and Windows - Exterior	Install new exterior sliding glass doors	169	EA	\$ 1,800.00	\$ 304,200.00	Hotel balconies and restaurant balconies and patios
49. Doors and Windows - Exterior	Install new aluminum windows and skylights	13	EA	\$ 1,200.00	\$ 15,600.00	Indoor pool and management offices
50. Doors and Windows - Interior	Install new door hardware on existing interior doors/frames throughout hotel.	527	EA	\$ 1,000.00	\$ 527,000.00	
51. Doors and Windows - Interior	Replace 25% of existing interior solid core wood doors and hollow metal frames as needed	132	EA	\$ 1,000.00	\$ 131,750.00	
52. Doors and Windows - Interior	Refinish existing solid core wood doors and hollow metal frames	395	EA	\$ 500.00	\$ 197,625.00	
53. Hotel and Conference Center - General Interior	Clean-up of general items (excluding environmental abatement)	89000	SF	\$ 1.15	\$ 102,350.00	Loose furniture, office supplies, hotel furnishings, workstations, files, etc.
54. Hotel and Conference Center - General Interior	Environmental abatement	89000	SF	\$ 17.00	\$ 1,513,000.00	Includes all areas of hotel and conference center
55. Hotel and Conference Center - General Interior	General demolition of finishes (excluding environmental abatement)	89000	SF	\$ 1.00	\$ 89,000.00	
56. Hotel and Conference Center - General Interior	Removal and disposal of fixed and moveable equipment	89000	SF	\$ 2.55	\$ 226,950.00	Kitchen and bar equipment, freezers, ice makers, etc.
57. Hotel and Conference Center - General Interior	Install fiberglass batt insulation throughout	106800	SF	\$ 1.00	\$ 106,800.00	
58. Hotel and Conference Center - General Interior	Install gypsum board on existing wood stud walls throughout	213600	SF	\$ 1.80	\$ 384,480.00	
59. Hotel and Conference Center - General Interior	Replace 10% of existing wood stud framing	10680	SF	\$ 2.00	\$ 21,360.00	
60. Hotel and Conference Center - General Interior	Finish partitions throughout (70% paint)	149520	SF	\$ 1.00	\$ 149,520.00	





**Eagle Creek Resort Assessment Mechanical**

Area	Description	Quantity	Unit	Unit Cost	Subtotal	Labor	Total	Comments / Notes
78. Main hotel and conference center and Eagle's Landing	On-site documentation of existing equipment	1	LS	\$ -	\$ 15,000.00	\$ -	\$ 15,000.00	
79. Main hotel and conference center and Eagle's Landing	Demolition	1	LS	\$ -	\$ 100,000.00	\$ -	\$ 100,000.00	
80. Main hotel and conference center	Lower level common area rooftop unit	1	EA	\$ 29,500.00	\$ 29,500.00	\$ 3,000.00	\$ 32,500.00	
81. Main hotel and conference center	First floor lobby and administrative area rooftop unit	1	EA	\$ 13,100.00	\$ 13,100.00	\$ 2,550.00	\$ 15,650.00	
82. Main hotel and conference center	Banquet room rooftop unit	1	EA	\$ 35,600.00	\$ 35,600.00	\$ 4,250.00	\$ 39,850.00	
83. Main hotel and conference center	Restaurant and bar/lounge rooftop unit	1	EA	\$ 35,600.00	\$ 35,600.00	\$ 4,250.00	\$ 39,850.00	
84. Main hotel and conference center	Laundry room supplementary split system	1	EA	\$ 6,125.00	\$ 6,125.00	\$ 855.00	\$ 6,980.00	
85. Main hotel and conference center	First floor administrative area split system	1	EA	\$ 14,300.00	\$ 14,300.00	\$ 1,050.00	\$ 15,350.00	
86. Main hotel and conference center	Indoor pool ancillary area split system	1	EA	\$ 14,300.00	\$ 14,300.00	\$ 1,050.00	\$ 15,350.00	
87. Main hotel and conference center	Indoor pool air handling unit	1	EA	\$ 15,600.00	\$ 15,600.00	\$ 365.00	\$ 15,965.00	
88. Main hotel and conference center	Kitchen hood makeup air unit	1	EA	\$ 130,000.00	\$ 130,000.00	\$ 2,100.00	\$ 132,100.00	
89. Main hotel and conference center	Kitchen and coffee shop makeup air unit	1	EA	\$ 15,600.00	\$ 15,600.00	\$ 365.00	\$ 15,965.00	
90. Main hotel and conference center	Walk-in coolers cooling unit	1	EA	\$ 14,600.00	\$ 14,600.00	\$ 4,875.00	\$ 19,475.00	
91. Main hotel and conference center	PTAC units	130	EA	\$ 1,500.00	\$ 195,000.00	\$ 36,080.00	\$ 231,080.00	Assumes 100% is replaced
92. Main hotel and conference center	Exhaust fans - rooftop	4	EA	\$ 2,200.00	\$ 8,800.00	\$ 1,124.00	\$ 9,924.00	Assumes 100% is replaced
93. Main hotel and conference center	Exhaust fans - in-line	4	EA	\$ 1,450.00	\$ 5,800.00	\$ 1,500.00	\$ 7,300.00	Assumes 50% is replaced
94. Main hotel and conference center	Indoor pool water heating plant	1	EA	\$ 2,500.00	\$ 2,500.00	\$ 2,400.00	\$ 4,900.00	
95. Main hotel and conference center	Diffusers, registers, grilles	100	EA	\$ 85.00	\$ 8,500.00	\$ 2,050.00	\$ 10,550.00	Assumes 50% is replaced
96. Main hotel and conference center	In-line electric duct heaters	2	EA	\$ 1,325.00	\$ 2,650.00	\$ 1,680.00	\$ 4,330.00	Assumes 50% is replaced
97. Main hotel and conference center	Electric cabinet/wall/unit heaters	4	EA	\$ 1,000.00	\$ 4,000.00	\$ 380.00	\$ 4,380.00	Assumes 50% is replaced
98. Main hotel and conference center	Ductwork	1600	LB	\$ 0.54	\$ 864.00	\$ 8,320.00	\$ 9,184.00	Assumes 10% is replaced
99. Main hotel and conference center	Ductwork insulation	200	SF	\$ 4.54	\$ 908.00	\$ 1,900.00	\$ 2,808.00	Assumes 10% is replaced
100. Main hotel and conference center	Refrigerant piping	100	LF	\$ 8.15	\$ 815.00	\$ 680.00	\$ 1,495.00	Assumes 100% is replaced
101. Main hotel and conference center	Refrigerant piping insulation	50	LF	\$ 0.40	\$ 20.00	\$ 181.50	\$ 201.50	Assumes 100% is replaced
102. Main hotel and conference center	Gas piping	100	LF	\$ 7.45	\$ 745.00	\$ 2,155.00	\$ 2,900.00	Assumes 10% is replaced
103. Main hotel and conference center	Miscellaneous accessories	1	LS	\$ -	\$ 20,000.00	\$ -	\$ 20,000.00	
104. Main hotel and conference center	Commissioning of mechanical systems	1	EA	\$ 20,000.00	\$ 20,000.00	\$ -	\$ 20,000.00	
105. Main hotel and conference center	Testing and balancing for HVAC systems	1	EA	\$ 15,000.00	\$ 15,000.00	\$ 255.00	\$ 15,255.00	
106. Eagle's Landing	PTAC units	8	EA	\$ 1,500.00	\$ 12,000.00	\$ 1,888.00	\$ 13,888.00	Assumes 100% is replaced
107. Eagle's Landing	Air handling unit	1	EA	\$ 28,100.00	\$ 28,100.00	\$ 1,850.00	\$ 29,950.00	
108. Eagle's Landing	Commissioning of mechanical systems	1	EA	\$ 1,500.00	\$ 1,500.00	\$ -	\$ 1,500.00	
	Subtotal				\$ 651,527.00	\$ 87,153.50	\$ 853,680.50	
	Contingencies - 10%						\$ 85,368.05	
	Total	10%			\$ 736,895.05	\$ 87,153.50	\$ 939,048.55	

**Eagle Creek Resort Assessment Plumbing**

Area	Description	Quantity	Unit	Unit Cost	Subtotal	Labor	Total	Comments / Notes
109. Main hotel and conference center and Eagle's Landing	On site documentation of existing conditions	1	LS	\$ -	\$ 15,000.00	\$ -	\$ 15,000.00	
110. Main hotel and conference center and Eagle's Landing	Testing - existing equipment and piping	1	LS	\$ -	\$ 10,000.00	\$ -	\$ 10,000.00	
111. Main hotel and conference center	Main gas fired domestic water heaters	3	EA	\$ 20,300.00	\$ 60,900.00	\$ 167.00	\$ 61,067.00	
112. Main hotel and conference center	Surge tank	1	EA	\$ 11,100.00	\$ 11,100.00	\$ 167.00	\$ 11,267.00	
113. Main hotel and conference center	Piping valves	25	EA	\$ 25.00	\$ 625.00	\$ 725.00	\$ 1,350.00	Assumes 25% replaced
114. Main hotel and conference center	Water piping	300	LF	\$ 10.60	\$ 2,265.00	\$ 2,295.00	\$ 4,560.00	Assumes 10% replaced
115. Main hotel and conference center	Water piping insulation	300	LF	\$ 10.40	\$ 3,120.00	\$ 3,775.00	\$ 6,895.00	Assumes 10% replaced
116. Main hotel and conference center	Sanitary piping	300	LF	\$ 17.30	\$ 5,190.00	\$ 4,935.00	\$ 10,125.00	Assumes 10% replaced
117. Main hotel and conference center	Lavatory	136	EA	\$ 315.00	\$ 42,840.00	\$ 19,176.00	\$ 62,016.00	Assumes 100% replaced
118. Main hotel and conference center	Sink	8	EA	\$ 550.00	\$ 4,400.00	\$ 1,288.00	\$ 5,688.00	Assumes 100% replaced
119. Main hotel and conference center	Toilet	141	EA	\$ 735.00	\$ 103,635.00	\$ 24,111.00	\$ 127,746.00	Assumes 100% replaced
120. Main hotel and conference center	Bathub/shower	130	EA	\$ 825.00	\$ 107,250.00	\$ 29,380.00	\$ 136,630.00	Assumes 100% replaced
121. Main hotel and conference center	Shower	10	EA	\$ 335.00	\$ 3,350.00	\$ 3,880.00	\$ 7,230.00	Assumes 100% replaced
122. Main hotel and conference center	Thermostatic mixing valve	140	EA	\$ 570.00	\$ 79,800.00	\$ -	\$ 79,800.00	Assumes 100% replaced
123. Main hotel and conference center	Urinal	6	EA	\$ 385.00	\$ 2,310.00	\$ 255.00	\$ 2,565.00	Assumes 100% replaced
124. Main hotel and conference center	Electric water cooler	4	EA	\$ 2,475.00	\$ 9,900.00	\$ 628.00	\$ 10,528.00	Assumes 100% replaced
125. Main hotel and conference center	Miscellaneous accessories	1	LS	\$ -	\$ 20,000.00	\$ -	\$ 20,000.00	
126. Eagle's Landing	Lavatory	8	EA	\$ 315.00	\$ 2,520.00	\$ 3,648.00	\$ 6,168.00	Assumes 100% replaced
127. Eagle's Landing	Sink	1	EA	\$ 550.00	\$ 550.00	\$ 161.00	\$ 711.00	Assumes 100% replaced
128. Eagle's Landing	Toilet	8	EA	\$ 735.00	\$ 5,880.00	\$ 1,368.00	\$ 7,248.00	Assumes 100% replaced
129. Eagle's Landing	Bathub/shower	8	EA	\$ 825.00	\$ 6,600.00	\$ 1,808.00	\$ 8,408.00	Assumes 100% replaced
	Subtotal				\$ 472,235.00	\$ 97,767.00	\$ 595,002.00	
	Contingencies - 10%	10%			\$ 531,735.20	\$ 97,767.00	\$ 654,502.20	
	Total							

**Eagle Creek Resort Assessment Fire Protection**

Area	Description	Quantity	Unit	Unit Cost	Subtotal	Labor	Total	Comments / Notes
130.	Main hotel and conference center and Eagle's Landing	1	LS	\$ -	\$ 10,000.00	\$ -	\$ 10,000.00	
131.	Main hotel and conference center and Eagle's Landing	1	LS	\$ -	\$ 15,000.00	\$ -	\$ 15,000.00	
132.	Main hotel and conference center	1	LS	\$ -	\$ 15,000.00	\$ -	\$ 15,000.00	
133.	Main hotel and conference center	1	EA	\$ 22,300.00	\$ 22,300.00	\$ 3,325.00	\$ 25,625.00	
134.	Main hotel and conference center	1	EA	\$ 5,175.00	\$ 5,175.00	\$ 565.00	\$ 5,740.00	
135.	Main hotel and conference center	1	EA	\$ 1,300.00	\$ 1,300.00	\$ 225.00	\$ 1,525.00	
136.	Main hotel and conference center	4	EA	\$ 1,375.00	\$ 5,500.00	\$ 275.00	\$ 5,775.00	Assumes 50% replacement
137.	Main hotel and conference center	4	EA	\$ 5,425.00	\$ 21,700.00	\$ 2,300.00	\$ 24,000.00	Assumes 50% replacement
138.	Main hotel and conference center	500	LF	\$ 52.00	\$ 26,000.00	\$ 11,250.00	\$ 37,250.00	Assumes 25% replacement
139.	Main hotel and conference center	60,000	SF	\$ 0.30	\$ 18,000.00	\$ 15,000.00	\$ 33,000.00	Assumes 100% replacement
140.	Main hotel and conference center	1000	EA	\$ 5.50	\$ 5,500.00	\$ 3,880.00	\$ 9,380.00	
141.	Main hotel and conference center	1	LS	\$ -	\$ 10,000.00	\$ -	\$ 10,000.00	
142.	Eagle's Landing	5000	EA	\$ 0.30	\$ 1,500.00	\$ 1,500.00	\$ 3,000.00	Assumes 100% replacement
	Subtotal				\$116,975.00	\$ 38,320.00	\$ 195,295.00	
	Contingencies - 10%	10%					\$ 19,529.50	
	Total				\$136,504.50	\$ 38,320.00	\$ 214,824.50	

