

**RAWLINGS LIBRARY  
PUEBLO, COLORADO**

**ELEVATOR MODERNIZATION SURVEY REPORT**

**MAY 22, 2024**

**PREPARED FOR:**

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## SECTION I — SUMMARY AND RECOMMENDATIONS

### A. SCOPE

This report was commissioned to evaluate the condition of the existing passenger elevators at the Rawlings Library in Pueblo, Colorado, and to review existing building conditions for modernization to improve operation, reliability, and system performance. In addition, compliance with current elevator and building codes was evaluated, along with proposed modernization to improve equipment reliability, life safety and conformance with requirements of the Americans with Disabilities Act (ADA) for access by the physically challenged.

### B. GENERAL

Ed Sweda, Area Managing Director-Mountain West, performed a site review on May 21, 2024. Alan Rocco with The Library Facilities also attended the site review. Existing elevator equipment condition was evaluated to determine suitability for reuse in conjunction with proposed modernization. Existing building configuration related to elevator machine room, hoistways, and pits was evaluated for code compliance, with deviations noted in Section III of this report.

### C. MODERNIZATION OBJECTIVES

In our judgment, a comprehensive elevator modernization at the Rawlings Library should consider several objectives:

1. Improve overall system reliability and performance by providing efficient microprocessor logic for the 3 elevators. One per building with each having their own individual motor control.
2. Replace aged components to ensure 15 to 20 years of service.
3. Install new controller and devices necessary to Provide Firefighters' operation to comply with current life safety code requirements.
4. Install new car and hoistway door equipment to provide safe and reliable operation.
5. Install new elevator car and corridor pushbuttons and signal fixtures to comply with current requirements of the Americans with Disabilities Act (ADA).
6. Recondition retained equipment to ensure reliable operation.
7. Upgrade existing building conditions to comply with current National and City elevator safety code and building code requirements.

### D. CONCLUSIONS

The existing elevator equipment was engineered and installed in 2003 and is in average condition for this vintage of equipment. However, changes in equipment design and technology have made the existing dispatching system, motor control, and door operation, difficult to find parts for as they are becoming obsolete.

The existing controls are original Schindler MPH II engineered in 2003. Parts are becoming obsolete for the MPH product; the technology is obsolete, and the support and technician's knowledge of this product is limited.

The door operation is original equipment. Advances in door technology have resulted in improved passenger safety via closed loop operation.

Existing signal fixtures are obsolete and dated. Planning for replacement should include new hall and car fixtures as well as replacement of the multi light hall position indicators at the Lobby level.

The elevator cab interiors for the passenger elevators are dated and in need of being replaced.

The car roller guides should be replaced with new 3 roller spring loaded guides for all the elevators to ensure a smooth and steady ride quality.

Finally, a modernization of the elevator equipment will require upgrades to existing building for Code compliance within limitations of existing structure to ensure city acceptability of the new installations.

## **E. RECOMMENDATIONS**

We recommend planning proceed for the replacement of the existing control systems with new microprocessor's-based controls, new submersible hydraulic power units, new closed loop linear door operators, new LED car and hall fixtures with vandal resistant buttons. Various mechanical and structural components can be reconditioned and reused.

We recommend that the specifications include an alternate for Owner's to upgrade all 3 cab interiors and ceilings with new laminate wall panels and cladding of the fronts and returns. This recommendation is based on the concept that the buildings customers will not be visually aware of the Owner's investment in the property unless the obvious esthetics are upgraded.

We believe that the building work be included in the elevator contracts for a turnkey project.

The modernization project duration will be approximately 6-8 months depending on project scope and manufacturing. This estimated timeline includes creating specifications, bidding, contract award, engineering/submittal review, equipment manufacturing delivery, installation, adjustments, and inspections.

Contractor selection should be based upon a fair tendering process with final award based upon initial cost, five-year cost of ownership, mutually acceptable terms and conditions, and contractors track record in the Southern Colorado market.

Contractors will be required to bring everything up to 2019 Code.

## SECTION II — EXISTING EQUIPMENT REVIEW

### A. EQUIPMENT INVENTORY

	Elevators 1 and 2	Elevator 3
DESCRIPTION		
1. Manufacturer	Schindler	Schindler
2. Duty	4,000 lbs. 150 FPM	2,500 lbs. 150 FPM
3. Door Type and Size	42" x 84" Two-speed side opening	42" x 84" Single-speed side opening
4. Operation	Passenger	Passenger
5. Floors Served	B, 1,2,3,4	1,2,3
MAJOR COMPONENTS		
1. Machine Type	Hydraulic	Hydraulic
2. Controller Model	MPH II	MPH II
3. Operational Control	Duplex	Simplex
4. Door Operation	Schindler QKS 14	Schindler QKS 14
5. Door Reversal	2D Full Length	2D Full Length
6. Buffers	Spring	Spring
7. Landing System	Micro switches	Micro switches
CAR ENCLOSURE		
1. Shell	Steel	Steel
2. Lighting	Can lights	Fluorescent tubes
3. Ceiling	Stainless Island	2 x4 plastic panels
4. Walls	Glass	Glass
5. Car Doors	Stainless Steel	Stainless Steel
6. Front Returns	Stainless Steel	Stainless Steel
7. Entrance Columns	Stainless Steel	Stainless Steel
8. Sill	Aluminum	Aluminum
9. Handrails	Flat, Stainless	Flat, Stainless
10. Flooring	Carpet	Carpet
11. Base	Stainless Steel	Stainless Steel
CAR FIXTURES		
1. Car Operation Station	Applied	Applied
2. Car Position Indicator	In Car operating panel	In Car operating panel
3. Car Direction Indicator	In jamb	In jamb
4. Telephone Cabinet	Yes, hands-free	Yes, hands-free
5. Firefighters' Recall	Yes	Yes

	Elevators 1 and 2	Elevator 3
<b>HOISTWAY ENTRANCES</b>		
1. Frames	Stainless Steel	Stainless Steel
2. Door Panels	Stainless Steel	Stainless Steel
3. Access Means	Yes	Yes
4. Sills	Aluminum	Aluminum
<b>HALL FIXTURES</b>		
1. Hall Lanterns	Vertical	Vertical
2. Hall Position Indicators	N/A	N/A
3. Phase I Fire Service	Yes	Yes

## B. GENERAL

During our survey, existing passenger elevator components were checked to determine overall condition and suitability for continued use in conjunction with a modernization. In addition, machine room, hoistway, and pit spaces were reviewed for compliance with current codes. This section reviews the results of our equipment survey. Related building conditions representing deviations from current codes and requiring modification are summarized in Section III of this report.

## C. DISCUSSION

The passenger elevator system at the Rawlings Library was manufactured and installed by Schindler Elevator in 2003.

Passenger elevator car control is a Schindler MPH II.

Passenger elevators 1 and 2 have a rated capacity of 4,000 lbs., a rated speed of 150 fpm, and serve floors B,1,2,3,4. Passenger elevator 3 has a rated capacity of 2,500 lbs., a rated speed of 150 fpm, and serve floors 1,2,3. Elevators 1 and 2 have 3'-6" wide x 7'-0" high two-speed, side-opening doors. Elevator 3 has 3'-6" wide x 7'-0" high single-speed, side-opening doors.

## D. EQUIPMENT DISPOSITION

This section focuses on the existing condition of the elevator equipment and recommended disposition with respect to modernization.

### 1. Controls:

The passenger elevators are controlled by Schindler MPH II controllers that were manufactured in 2003. Across the country MPH II controls have become more difficult to maintain as the supply of control boards begins to dwindle. Elevator contractors have had a difficult time getting the boards which leaves the only option is to have a board repaired and the success rate is less than 50%. The Schindler MPH II hydraulic controls will be upgraded with state-of-the-art solid state microprocessor controls. This upgrade aims to enhance the efficiency, reliability, and overall performance of the elevator system. The new microprocessor brings advanced technology to ensure a more responsive and optimized.

### 2. Pump Unit:

Given that the existing Schindler pump unit is outdated, our planning includes transitioning to modern and efficient submersible power unit fitted with a constant speed valve. This upgrade is designed to align with current industry standards and optimize the performance and energy efficiency of the elevator system. The

implementation of submersible power units are expected to enhance the reliability and contribute to a more sustainable and advanced elevator operation.

3. Car Sling:

The current car frame consists of basic structural steel and has been evaluated for its condition. Given the sound structural integrity, we recommend that the existing car frame be reused in this project. This approach aligns with efficiency and sustainability goals while contributing to overall cost effectiveness. Utilizing the existing car frame, which is in good condition, will ensure stability and reliability in the modernized elevator system.

4. Platform:

The current platform has been assessed and deemed suitable for reuse.

5. Car Door Equipment:

The original Schindler QKS 14 Automatic door operators were once considered very reliable and easy to upkeep. Setting an industry benchmark, however, as time has passed, this technology has become outdated. An inherent limitation is that door speed and position are fixed by a mechanical cam, hindering adaptability to site conditions.

In today's context, modern closed loop door operators can be retrofitted into the current system. This retrofitting leverages existing hoistway door components, including tracks, hangers, rollers, and interlocks. Integrating closed loop door control introduces a variable speed drive, allowing dynamic adjustments to the door motor to accommodate potential stack effect challenges.

The closed loop control system significantly enhances passenger safety. It does so by adapting and regulating door closing force, enhancing overall passenger experience. Going with this retrofit brings modern technology advantages, optimizing efficiency, adaptability, and passenger well-being, all while preserving adaptability with existing infrastructure components.

6. Cab Enclosure:

The current cab interiors are in need of replacement and should be upgraded during this modernization project. I would recommend we install a basic laminate wall panel product with stainless steel reveals and stainless-steel base. I would also recommend that we clad the car fronts and returns while doing the cab interior upgrades. I will request that the cost for the upgrades includes new car stainless steel car doors for each as well.

7. Hoistway Door Equipment:

Recommend all new hoistway door equipment. Can retain the door tracks but they should be cleaned, and wire brushed to remove any edges and ensure a smooth track and unobstructed roller movement.

8. Guide Rails and Supports:

Car guidrails are in generally good condition and are suitable for reuse under any modernization program where existing car speed and capacity are not changed. They will be cleaned with all fasteners tightened.

9. Traveling Cables and Hoistway Wiring: Existing traveling cables and hoistway wiring should be replaced under any modernization program. New traveling cables should be provided with minimum 10% spare conductors and should include minimum eight sets of twisted shielded pairs of communication wires to facilitate

installation of new car controls, signals, and hall stations and to provide sufficient spares to accommodate future card reader device if desired.

10. Buffers and Pit Equipment:

Existing elevator car buffers are in good condition and will be cleaned and repainted for reuse.

11. Car and Hall Station Fixtures:

The main car operating panels with the single risers of hall push button stations should be replaced with new LED long lasting vandal resistant buttons. The current buttons comply with the requirements of the American Disabilities Act (ADA) for access by physically challenged. The hall buttons were mounted at 42" above finished floor. All hall fixtures and position indicators shall be surface mounted.

**E. CONCLUSIONS**

In our judgment, the existing Schindler equipment in the building is outdated and needs to be modernized. The controllers are old and becoming very difficult to find parts for and to keep them running. The door operators and equipment are all outdated and are going to start creating problems leading to expensive repairs that will be of no value as they become obsolete as well. We strongly recommend you consider moving forward with the next steps of modernizing all 3 elevators at this location.

**F. OPINION OF PROBABLE COST**

Our opinion of probable cost, including related building work, is approximately \$600,000, including consulting fees. The alternate budget for new cab interiors is \$100,000.



### SECTION III — MODERNIZATION PLANS

#### A. GENERAL

In our opinion, development of a comprehensive modernization plan for the Rawlings Library should be based on the changes required to the existing elevator systems necessary to achieve reliable elevator service, passenger safety, and life safety, in conjunction with related building work necessary for code compliance.

Modernization should be sensitive to cost constraints as well as potential interim inconvenience to tenants during the modernization process. In our judgment, it must also represent a comprehensive, long-term (minimum 15 years) solution in order to justify capital expenditures.

#### B. MODERNIZATION PLANS

The planning phase will encompass the creation of a detailed specification Section 142500, which will outline a detailed of work in alignment with the summary presented in the appendix below. Given that many modern microprocessor-based car and motor controls are of a “proprietary” nature, the specifications will encompass the provisions of essential diagnostic service tools and technical manuals. This inclusion aims to provide optimal flexibility when considering future maintenance contracts. Alternatively, there is the option of specifying non=proprietary controls.

Additionally, aside from Section 142500, Lerch Bates will furnish specification sections outlining general Terms and Conditions. This compilation of documents will encompass a range of elements including instructions to Bidders, Quotation Form, Summary of Work, Alternates, Project Procedures, Submittals, and Related Work. The professional community involved in the bidding process is already familiar with the Lerch Bates documents and the overall tendering process.

This comprehensive approach seeks to ensure clarity, precision, and informed decision-making throughout the process, while aiming to maintain cost considerations and provide flexibility for future maintenance endeavors.

#### C. RECOMMENDATIONS

We recommend implementation of modernization scope to provide comprehensive modernization of the existing elevators. We recommend that Lerch Bates prepare our standard contracting package for ownership review.

In order to ensure the most competitive prices, bid documents will include Five Year Maintenance specification for pricing by all bidders.

Planning for modernization should include consideration of long lead times for fabrication of equipment and installation. Approximate time frame not including building work is as follows:

Planning for modernization should include consideration of long lead times for fabrication of equipment and installation. Approximate time frame not including building work is as follows:

• Preparation of Bid Specification/Owner Reviews	3 weeks
• Bid Review and Award of Contract	4 weeks
• Shop Drawing Approval	6 weeks
• Equipment Fabrication	14 weeks
• Equipment Delivery	1 weeks
• Installation	12-15 weeks

• Final Adjusting and Testing	1 weeks
<hr/>	
Total Elapsed Time for Project	41-44 weeks

**APPENDIX A —**  
**AMERICANS WITH DISABILITIES ACT COMPLIANCE EVALUATION FORM**

- |  |
|--|
| A. GENERAL APPLICATION: All buildings, passenger and service elevators. Freight elevators exempt. EXCEPTION: Those less than three stories high and less than 3,000 ft <sup>2</sup> per story unless such buildings are shopping centers, malls, or professional offices of a healthcare provider.                           |
| B. EFFECTIVE DATE: Signed into law July 26, 1990.  |
| C. COMPLIANCE DATE: Varies. Effective July 26, 1992, for existing buildings. Applies to new construction occupied for the first time after January 26, 1993. NOTE: Many of the rules can be interpreted in various ways. The following represents our interpretation of the regulations as of the date of the onsite review. |
| D. TAX ASSISTANCE: Section 190 of the IRS code allows up to \$35,000 tax deduction per year to businesses that make accessibility alterations to existing facilities.  |

PROJECT NAME: RAWLINGS LIBRARY	MACHINE TYPE: HYDRAULIC	REVIEWED: 5/21/2024
PROJECT LOCATION: 100 EAST ABRIENDO AVENUE	ELEVATOR TYPE: PASSENGER	ELEVATORS: 1,2,3
CITY AND STATE: PUEBLO, COLORADO	FLOORS SERVED: B,1,2,3,4	
MANUFACTURER (OEM): SCHINDLER	CAPACITY: 4,000 LBS. (ELEV 1-2) 2,500 LBS. (ELV 3)	SPEED: 150 FPM

Rule	Requirements	Comply Yes/No	Comments
4.10.1 General	Accessible elevator on accessible route.	Yes	
	Conform to A17.1-1990	Yes	
4.10.2 Automatic Operation	Automatic operation.	Yes	
	Self-leveling, stopping accuracy of $\pm\frac{1}{2}$ " with or without rated load.	Yes	
4.10.3 Hall Call Buttons	Centered 42" above floor.	Yes	
	Illuminating.	Yes	
	Minimum $\frac{3}{4}$ " in smallest dimension.	Yes	
	"Up" button above "Down" button	Yes	
	Raised button.	Yes	
4.10.3	No projections >4" above or below fixture, 27"-80" above floor.	Yes	Good
4.10.4 Hall Lanterns  (In-car lantern similarly visible is acceptable.)	In-car lanterns	Yes	
	Visual and <input checked="" type="checkbox"/> Sound once for up, twice for down Audible: <input type="checkbox"/> Automatic verbal announcement.	Yes	
	Centered at least 72" above floor.	Yes	
	At least $2\frac{1}{2}$ " in smallest dimension.	Yes	
	Visible from vicinity of hall pushbutton.	Yes	
4.10.5 Raised and Braille Characters on Hoistway Entrances 4.30.4 Applies	All hoistway entrances on both jambs.	Yes	
	Centered 60" above floor.	Yes	
	2" high characters.	Yes	
	Raised characters.	Yes	
	Permanently applied OK. 4.30.4 applies.	Yes	
4.10.6 Door Protective and Reopening Device  (Existing elevators with electro- mechanical safety edges which require contact to initiate door reopen are acceptable.)	Doors open and close automatically.	Yes	
	Device to stop and reopen doors when obstructed.	Yes	
	Full screen detector edge	Yes	
	Contact not required to initiate door reopen.	Yes	
	Doors reopen fully when obstructed.	Yes	
	When continuously obstructed won't allow door close for $\leq 20$ sec.*	Yes	
4.10.7 Door and Signal Timing for Hall Calls	<input type="checkbox"/> Notification Time (T)=initial hall lantern illumination/sound until doors start to close.* <input checked="" type="checkbox"/> T=car lantern visible form hall call button until doors start to close.* <input type="checkbox"/> T=D/1.5 ft/sec (D=distance from 60" directly in front of furthest call button controlling car to center of hoistway door).*	Yes	
4.10.8 Door Delay for Car Calls	Minimum Door Hold Open = 3.0 seconds in response to car call.*	Yes	

\*Elevator performance times can vary over time. Elevator maintenance contractor must be conscientious to maintain consistent reliability and operation.

Rule	Requirements	Comply Yes/No	Comments
4.10.9 Floor Plan of Elevator Cars	Minimum Clear <input type="checkbox"/> Center-Opening Doors: ≥80" x 51"	Yes	
	Inside Dimensions: <input checked="" type="checkbox"/> Side-Opening Doors: ≥68" x 51"		
	Door opening width = 36" minimum	Yes	
Minimum clear inside dimensions:	Car sill to hoistway sill clearance = 1¼" maximum	Yes	
4.10.10 Floor Surfaces	Comply with 4.5: firm, stable, and slip-resistant.	Yes	
	Maximum 1/4" vertical change in level car sill to car floor.	Yes	
4.10.11 Illumination Levels	At car controls, platform, car, and landing sill = 5 foot candles	Yes	
4.10.12 Car Controls CBC 1116B.1.9	Raised buttons (CBC requires raised buttons).	Yes	
	Minimum dimension = 3/4".	Yes	
	Raised, tactile, Braille/Arabic characters left of buttons (4.30). Applied OK.	Yes	
	Raised star, floor designation, Braille to left of main entry floor button.	Yes	
	Floor buttons illuminate.	Yes	
	Floor buttons extinguish when call answered.	Yes	
	Floor Buttons: <input type="checkbox"/> 54" maximum off finish floor for side approach	Yes	
	<input checked="" type="checkbox"/> 48" maximum off finish floor for front approach.		
	Emergency controls grouped at bottom ≥35" above finish floor.	Yes	
	Alarm bell button illuminates when actuated (A17.1).	Yes	
4.10.13 Car Position Indicators (Floor passing tone not req'd if automatic verbal floor announcement provided. Button to actuate tone can provided.)	Locate Controls: <input type="checkbox"/> On front wall if doors are center-opening	Yes	
	<input checked="" type="checkbox"/> On side or front wall if doors are side-opening.		
	<input checked="" type="checkbox"/> Above car control panel. <input type="checkbox"/> Above door.	Yes	
	Numerals at least 1/2" high.	Yes	
4.10.14 Emergency Communication (Device not requiring handset is easier to operate. Ideally, two-way system should provide audio and visual.)	<input type="checkbox"/> Floor passing tone ≥20 decibels with max. frequency of 1500 Hz	No	
	<input type="checkbox"/> Automatic verbal floor announcement.		
4.10.14 Emergency Communication (Device not requiring handset is easier to operate. Ideally, two-way system should provide audio and visual.)	Two-way per A17.1-1990.	Yes	
	Pushbutton activation.	Yes	
	Compartment top 48" maximum off finished floor.	Yes	
	Compartment bottom 15" minimum off finished floor.	Yes	
	Compartment cover easily opened: no tight grasping, pinching, or twisting.	Yes	
	Identified by raised symbol and lettering.	Yes	
	Visual acknowledgment of emergency communication	Yes	

**APPENDIX B —  
BUILDING WORK CHECKLIST**

Project:	Rawlings Library	Elevators:	1,2,3
Location:	100 East Arbriendo Avenue, Pueblo, Colorado	Date:	5/21/2024

ELEVATORS 1,2,3			
REQUIREMENT		Complies	COMMENTS
MACHINE ROOM			
1.	Door to close and lock	Yes	
2.	Door size 30" x 72" min.	Yes	
3.	Door fire rating. (U.B.C. Code OK)	Yes	
4.	Machine room door key to be readily accessible	Yes	
5.	Natural or mechanical ventilation to ensure safe and normal operation.	Yes	
6.	Light switch within 18" lock jamb side of door.	Yes	
7.	Lighting 19 ftc at floor level.	Yes	
8.	Light guard if less than 8' high.	Yes	
9.	Car light disconnect, 15A (dedicated circuit which can be locked open)	Yes	
10.	Head room not less than 7'-0".	Yes	
11.	Fire extinguisher Class ABC.	Yes	
12.	Fire operation log <input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Quarterly	Yes	
13.	Disconnect fire operation log.	N/A	
14.	Disconnect switch grounding.		Unable to confirm
15.	Smoke detector. Manual reset via normally closed contact at 110V.	Yes	
16.	Heat detector flow switch req'd if sprinkler head present.	Yes	
17.	Heat detector to be within 2' of sprinkler head.	Yes	
18.	Shunt trip required if sprinkled.	Yes	
19.	Sprinkler head guard.	No	
20.	GFCI Convenience outlet.	Yes	
21.	No foreign wiring in machine room.	Yes	Good
22.	No foreign piping in machine room.	Yes	Good
23.	Machine room and hoistway located on same side of any expansion joints.	Yes	Good
PITS			
1.	Light switch 36" above sill.	Yes	
2.	Illumination not less than 10 ftc.	No	
3.	Light to be guarded.	Yes	
4.	Pit ladder 4" clear to wall, 16" wide.	Yes	
5.	Pit screen requirements: 6'-0" above top rung of ladder, 2" maximum openings.	No	

ELEVATORS 1,2,3			
REQUIREMENT		Complies	COMMENTS
6.	Floor drain or sump pump required.	Yes	
7.	Drains not to be connected directly to sewer.	Yes	
8.	Sump cover to be flush with floor.	Yes	
9.	Sprinkler head guard (will not require sensors relating to the shunt trip)	Yes	
10.	GFCI convenience outlet.	Yes	
HOISTWAY			
1.	Hoistway vent required over 2 floors.		
2.	Landing sills to be flush. (1½" maximum height with bevel)	Yes	
3.	Illumination at landings not less than 5 ftc.	Yes	
4.	Smoke detector. Manual reset via normally closed contact at 110V.	N/A	
5.	Sprinkler head guard.	Yes	
6.	Heat detector or flow switch if sprinkler head is present.	No	
7.	Access door for detector maintenance. Max. Size: 2'x2'. Provide with lock. Screening required on hoistway side of opening.	No	
8.	Hoistway recesses not allowed.	Yes	
9.	Beam projections more than 2" to be beveled.	Yes	
10.	Setbacks to be beveled or covered.	Yes	
CAR INTERIOR			
1.	A means of two-way communication required for all elevators (telephone, intercom, etc.) Hot phone line.	Yes	
2.	Telephone to 24-hour service when a building employee or watchman is not continuously available.	Yes	
SMOKE DETECTORS			
1.	System type smoke detectors required in elevator lobbies and machine rooms.	Yes	
2.	Smoke detectors required in any hoistway which has sprinklers.	No	
3.	Smoke detectors in hoistway below lowest recall floor to send car to upper floor.	Yes	



**APPENDIX C —  
EQUIPMENT DISPOSITION SUMMARY**

ELEVATORS 1,2,3	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes: Elv 1.2 duplex Elv 3 simplex
<b>HOISTWAY ENTRANCE</b>					
Frames		X			
Door Panels		X			Alternate for new
Sight Guards				X	As needed
Astragals				X	As needed
Sills		X			
Sill Supports		X			
Fascia		X			
Toe Guard		X			
Dust Covers				X	As needed
Struts and Headers		X			
Hangers and Tracks				X	
Hanger Rollers				X	
Hanger Covers				X	
Closers				X	
Relating Mechanism				X	
Interlocks				X	
Gibs				X	
Access				X	
Floor Identification				X	
Finish		X			
<b>CAR</b>					
Frame		X			
Platform		X			
Isolation		X			
Plunger Isolation		X			
Car Guide Rails		X			
Guide Shoes				X	Roller guides
Sills		X			
Flooring		X			
Fireproofing				X	As needed
Toe Guard					
Doors		X			Alternate for new
Door Hangers				X	
Door Track		X			

ELEVATORS 1,2,3	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes: Elv 1.2 duplex Elv 3 simplex
Door Header		X			
Door Clutch				X	
Door Unlocking Device				X	
Door Operator				X	Linear
Door Contact				X	
Door Protection Device				X	
Top Control Station				X	
Work Light and Receptacle				X	
Top Exit Contact				X	
Selector Tape Switch				X	
Door Restrictor				X	
Emergency Lighting				X	
Voice Announcing				X	
MACHINE ROOM					
Controller				X	
Selector				X	
Wiring				X	
Pump Unit				X	
Shut-Off Valve				X	
Muffler				X	
Piping		X			
Piping Support		X			
Lighting				X	
Access		X			
Ventilation		X			
Disconnect Switch		X			
Sprinklers		X			
Smoke Detectors				X	As needed
Heat Detector				X	As needed
Enclosure		X			
Heating/Air Conditioning		X			
HOISTWAY					
Main Guide Rails (Car)		X			
Normal and Final Terminal Devices				X	
Wiring and Traveling Cables				X	

ELEVATORS 1,2,3	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes: Elv 1.2 duplex Elv 3 simplex
Ventilation					
Enclosure		X			
Smoke Detectors				X	
Sprinklers		X			
PIT					
Access Ladder		X			
Car Buffer		X			
Stop Switches				X	
Plunger		X			
Cylinder		X			
Shut-Off Valve				X	
Piping		X			
Piping Support		X			
Sump		X			
Sump Pit/Cover		X			
Light				X	
Light Switch				X	
Outlet				X	
Sprinkler		X			
Heat Detector				X	
CAR ENCLOSURE					
Ceiling				X	Alternate for new
Lighting				X	Alternate for new
Ventilation				X	Alternate for new
Walls				X	Alternate for new
Panels				X	Alternate for new
Returns				X	Alternate for new
Handrails				X	Alternate for new
Flooring					
OPERATING DEVICES					
Hall Pushbuttons				X	
Access Switches				X	
Firefighters' Hall Station				X	
Main Car Station				X	
Communications System Wiring				X	

ELEVATORS 1,2,3	Remove Existing	Retain Existing	Recond. Existing	Provide New	Notes: Elv 1.2 duplex Elv 3 simplex
Signaling Devices				X	
Car Position Indicator				X	
Car Travel Lantern				X	
Smoke Detector				X	As needed

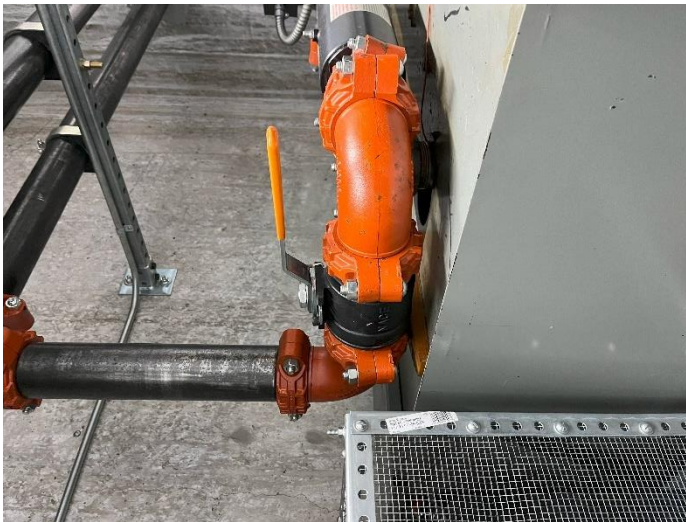
**APPENDIX D —  
SUPPORTING PHOTOGRAPHS**



1. Elevators 1 and 2 main lobby entrance.



2. Elevator 2 car operating panel with locked service cabinet and hands-free communication device.



3. Piping for hydraulic fluid.

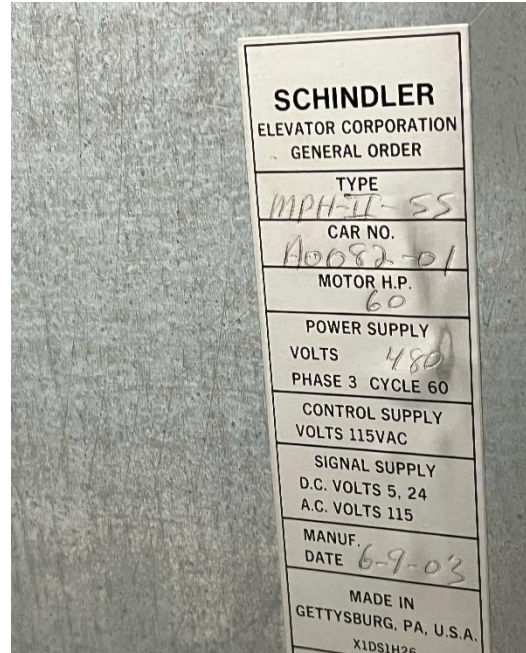


4. Oil Cooler.

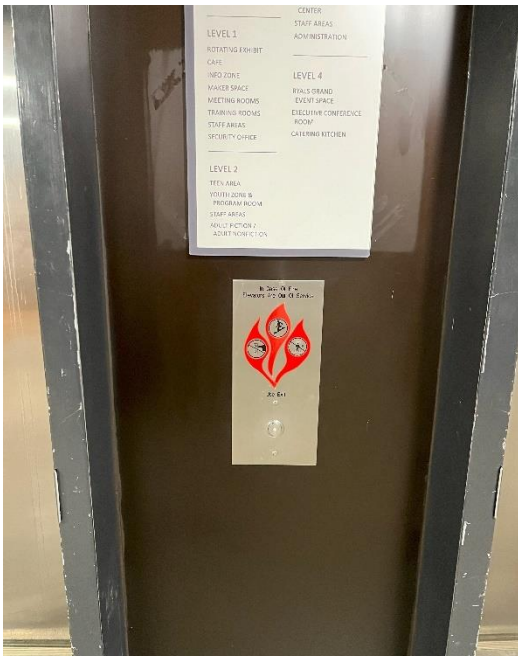




5. Power switch for car top workstation.



6. Data tag for hydraulic power unit.



7. Hall fixture.

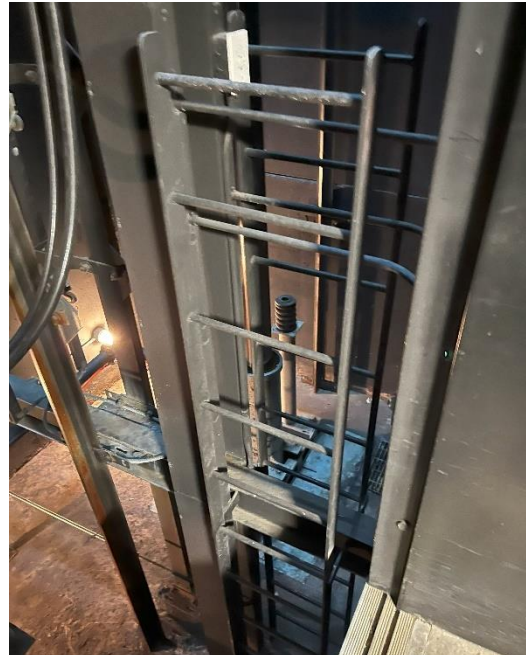


8. Level B elevator entrance.





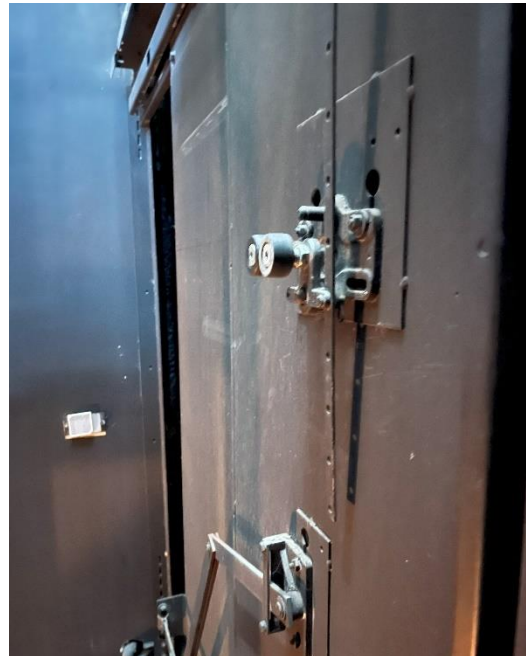
9. View of pit with hydraulic cylinder, piping, and spring buffers.



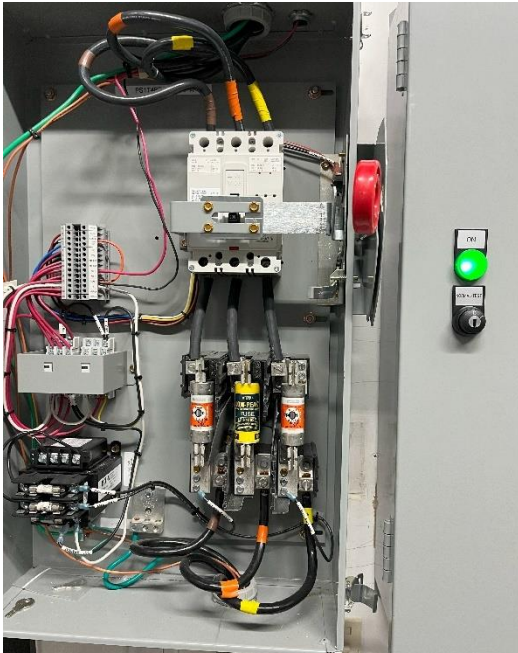
10. Pit ladder with view of pit.



11. Stop switch in pit.



12. Hoistway Door Linkage.



13. Main Disconnect.



14. Interior of cab, glass wall panels, flat stainless hand-rails and carpeted flooring.



15. Car operating panel with keyed access switches and hands-free communication device.



16. Car position indicator in car 1.





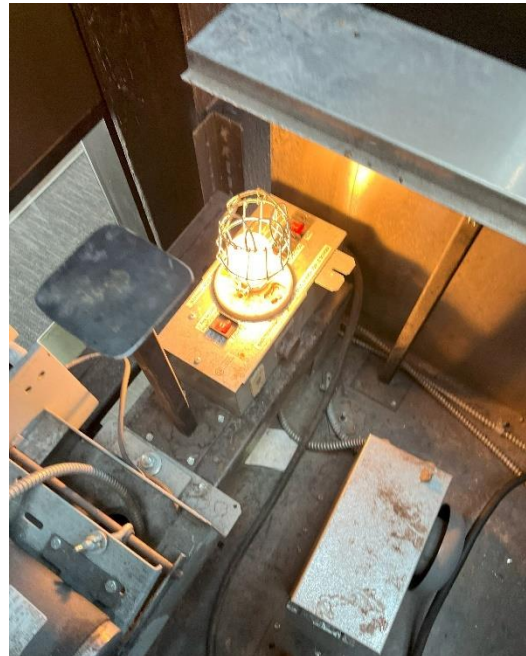
17. Hall fixture.



18. Typical elevator entrance with Braille in jamb.



19. Lobby Fire Alarm Device



20. Top of car workstation with guarded light receptacle.



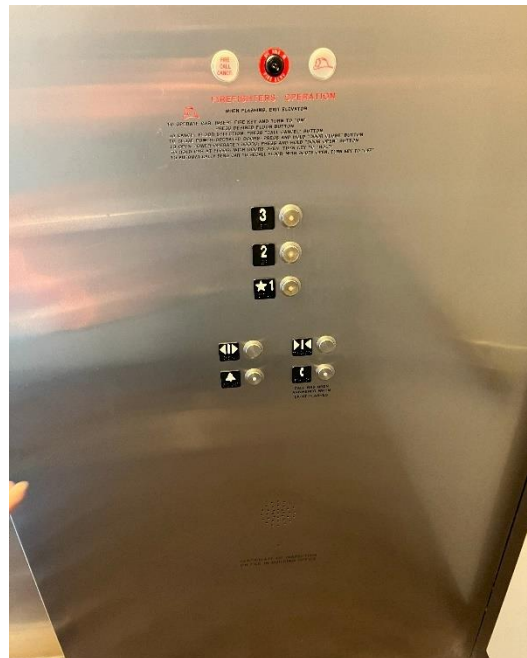
21. Staff elevator entrance with security keypad.



22. Car riding lanterns.



23. View of car and hoistway sills.



24. Car operating panel in elevator 3.





25. Car position indicator with keyed access switches in elevator 3.



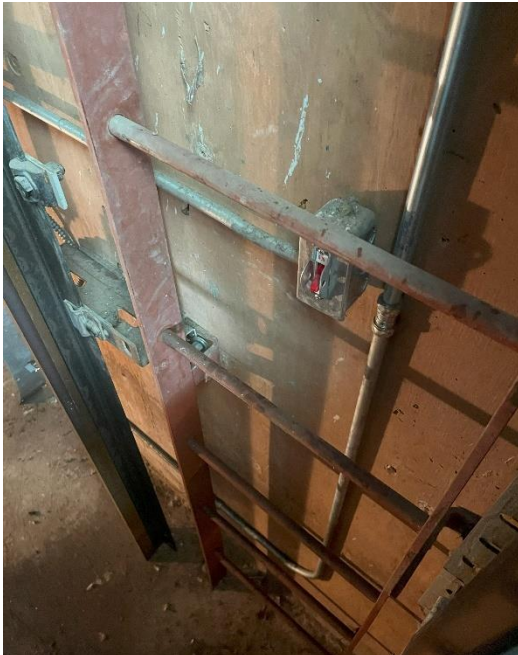
26. Elevator 3 entrance.



27. Hall fixture.



28. Braille in jamb.



29. Pit ladder and stop switch.



30. View of pit with cylinder, piping, and spring buffers.

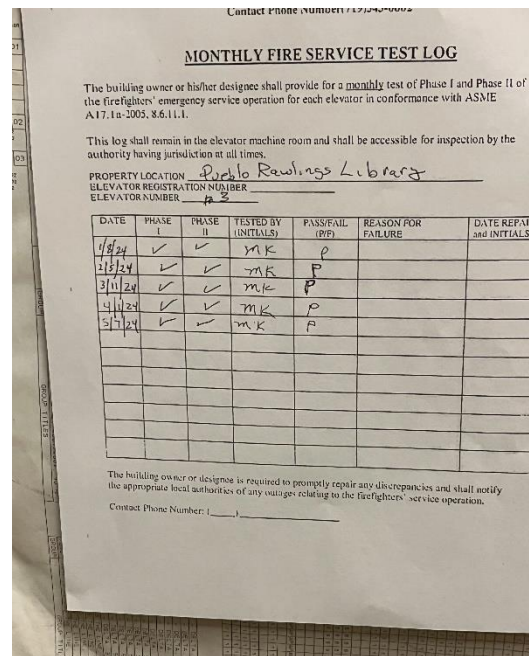
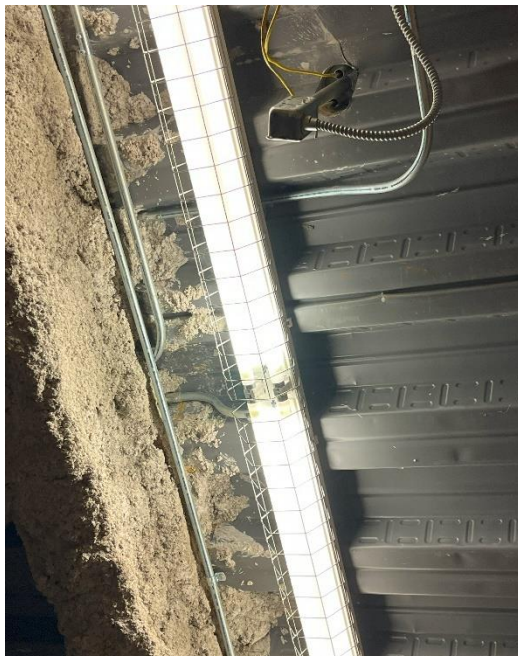
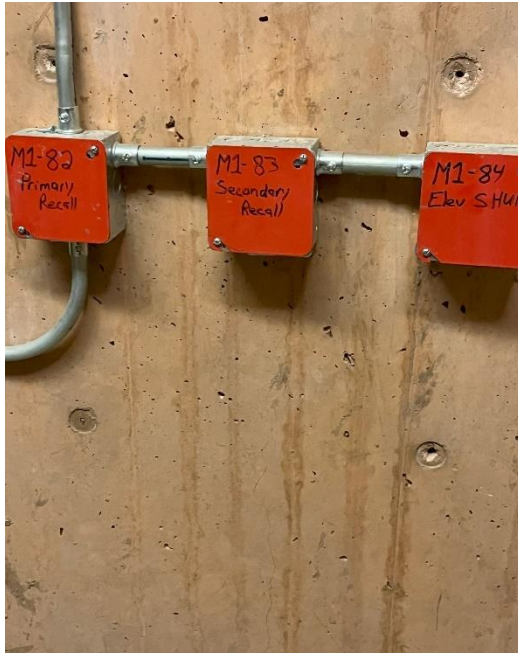


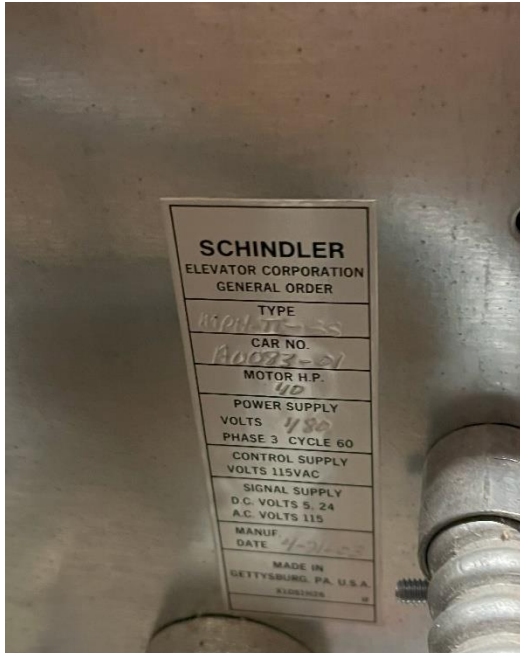
31. Bottom of car roller guides.



32. Toe guard.







37. Schindler hydraulic power unit data tag.



38. Car 3 Oil Cooler.



39. Controller View.



40. Hall position indicator.





41. Car top workstation.



42. Data tag for Schindler door operator.



43. Elevator Data tag.



44. View of door operator.