

# Carl Becker Hall Elevator Replacement

## Cornell University

Ithaca, NY



Project Owner:  
Cornell University/  
Architectural Resources

Contact:  
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Architectural Resources  
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Professional Services:  
2019

Construction:  
TBD

Est. Construction Cost:  
\$450,000

### KEY ELEMENTS

- Field investigation
- HVAC upgrades at machine rooms
- Electrical power modifications
- Upgraded communications
- Car access



### SUMMARY DETAIL:

Currently in design, Patriot Design and Consulting is serving as the MEP sub-consultant to Architectural Resources for this project. The Thyssen Krupp traction elevator services the basement through 5<sup>th</sup> floor mechanical penthouse is being replaced due to continuing maintenance and operational issues. The cars themselves will be re-utilized with new ropes, track, machinery, control center, communications, finishes and various system appurtenances to address deficiencies identified during the field investigation.

A new machine room air conditioning unit with a remote outdoor condenser is being provided for year-round cooling to replace the existing deficient cooling unit that was mis-applied during design to reject heat to the mechanical penthouse, and thus is not effective at cooling the machine room. Also, the original design included a continuously running exhaust fan to relieve the elevator shaft, but created a potential fire hazard by running through the rated machine room wall, without opening protectives and through the mechanical penthouse space. This fan is not code required and thus is being eliminated in accordance with the current elevator code.

Finally, a new elevator sump pump with oil-separation and alarms is being provided as is required by code, but omitted from the original installation. Power and signal wiring were engineered for the new elevator machinery, controller, and communications to the car from a new emergency responders elevator panel.

All engineering was completed in accordance with ASME A17 and the International Building Code.