

## Project Overview

The proposed project involves the renovation of approximately 5,500 square feet located on the north end of the fifth floor of the Salt Lake City and County Building. The fifth-floor space is a unique opportunity for useful open office space in a historic building. The design intent emphasizes a balance between preserving historic character and accommodating new office needs of the City's Law Offices.

## Design Precedents

Several precedents inform the design approach for this project:

- **GSBS Architects Offices / Henderson Building:** This project highlights the integration of open office planning with exposed structural and mechanical systems, combining functionality with an expression of materiality and craftsmanship.



- **Puck Building:** Known for its exposed brick and steel structural elements, the Puck Building demonstrates how historic spaces can be adapted for modern office use while preserving original architectural features.



- **Salt Lake City and County Building – Accounting Offices:** A historic precedent within the same building, the accounting offices demonstrate how spaces in the building can be furnished for office use while respecting original finishes,

moldings, and architectural detailing. These offices serve as a model for integrating new furniture with historic finishes and fixtures.

## Interior Finishes

Interior finishes will include adding drywall to all open rafter cavities, furring out exposed concrete, and constructing wood millwork to conceal mechanical piping, with species, finish, and style chosen in keeping with historic elements. Two design options are proposed: a historic exposed brick and structure, with the wood columns and beams, painted steel structure and ducts, and simple wood base elements; or a more historic approach that matches the building's original finishes, covering the brick, wood structure, adding plaster crown molding details and decorative pendant light fixtures.

## Code Compliance

Code compliance IEBC 2021 and IBC 2021. The space will be fully sprinkled, incorporate a fire-rated horizontal exit, and maintain a single-level floor. Due to the relocation of mechanical equipment, a mezzanine extension will be required to house existing and new HVAC components. Code analysis identifies the project as an alteration (IEBC 2021 Section 202), involving a change of occupancy from S to B in a historic building. Increased live loads necessitate the use of IBC 2021 Section 1607 for structural design, while Section 306 ensures accessibility compliance under ICC A117.1. Section 503 requires adherence to IBC provisions for alterations, with Section 506 confirming that the new occupancy is approved as less hazardous. Section 1200 recognizes the building's historic status, and horizontal exit requirements are dictated by maximum exit access travel distances per IBC 2021.

## Structural Design

Structurally, new floor framing will support the fifth-floor office use, with both wood and cold-formed steel options analyzed. Framing requirements vary across five designated areas, using CFS sections such as 1400S350-97 and 1600S350-97 at specified spacings, or equivalent wood joists 3/4" x 14" @ 8" o.c. New framing supports both the office floor and existing ceiling, addressing inadequate deflection capacity in existing joists to mitigate plaster cracking. Analysis of roof truss braces indicates non-critical support in most areas, allowing selective removal and redistribution of forces.

## Mechanical, Electrical, Plumbing, and Fire Sprinkler Systems

Mechanical, electrical, plumbing, and fire sprinkler systems will be added to serve the new office spaces. Existing air handling units will be relocated to an upper mezzanine, with ductwork and chilled/heating water extended to serve new fan coil units. Plumbing modifications will accommodate condensate piping for both existing and new HVAC units. Fire sprinkler piping will be redesigned to serve the remodeled space while maintaining coverage of the fourth floor. Electrical work includes new power panels, emergency power panels, and motor controls to support relocated and new air handlers. Fire alarm and detection systems

will integrate new NAC panels, annunciation devices, and signal line extensions. Data systems will include a new rack and conduit connection to existing fiber cores, with dedicated grounding and emergency power. Lighting will be installed with energy code-compliant controls, emergency egress lighting, and power provisions, while security and card access systems will be provided as directed by the owner.

## Cost Estimates

Rough order of magnitude (ROM) costs, based on the architectural, structural, and MEP narratives, are as follows:

- Exposed Brick and Structure Option: \$510-\$545 per square foot
  - Total: \$2.8M-\$3M
- Historic Aesthetic and Finishes Option: \$600-\$655 per square foot
  - Total: \$3.3M-\$3.6M

The design preserves the historic character of the Salt Lake City and County Building while delivering a fully functional, code-compliant, and visually engaging office environment, informed by notable adaptive reuse precedents.