

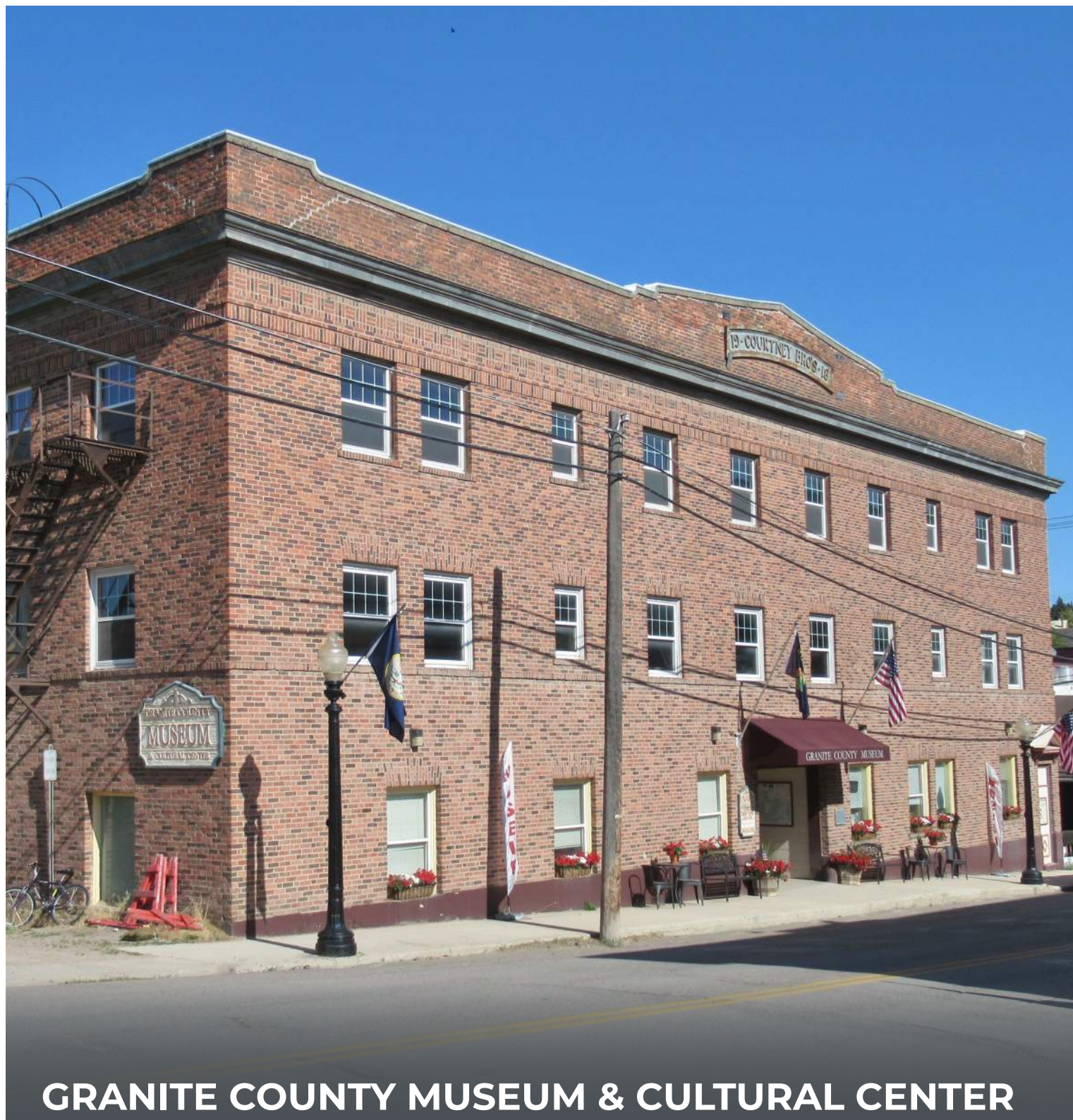


## FEASIBILITY STUDY

MARCH 2024

PREPARED FOR:  
GRANITE COUNTY MUSEUM &  
CULTURAL CENTER  
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PHILIPSBURG, MT 59858

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**GRANITE COUNTY MUSEUM & CULTURAL CENTER**



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## EXECUTIVE SUMMARY

High Plains Architects, P.C. (HPA) has compiled this feasibility study for the Granite County Museum and Cultural Center, which owns the historic Courtney Hotel building in Philipsburg, Montana. This report provides a brief building history, documentation of existing conditions with plans and photos, project program, concept plans, proposed renovations, and sustainable strategies. It examines opportunities with the existing historic building to enhance the experience of museum visitors and community space users, maintain its historic character, and provide critically needed housing in the local area.

The history of the Courtney Hotel dates back more than one hundred years. It has housed a variety of uses serving the changing needs of the surrounding area and the era. HPA explored options for converting the second and third level hotel rooms into rentable apartments. One concept provides affordable one- and two-bedroom apartment options for young working individuals and couples. By revitalizing a building near downtown with 17 rentable units, it reduces development sprawl and adds vibrancy to downtown.

Rentable income from apartment units and community space could provide income to pay museum staff and expand the museum's hours of operation so it is full time and year-round. In turn, this would expand the impact of museum exhibits and archives, with more visitors from across the state, nation, and globe, enabling a unique experience and snapshot back in time that can only be found at the historic Courtney Hotel Building.

Sustainable strategies can overcome some of the energy challenges that often come with historic buildings. Improving the building thermal envelope and taking advantage of phase change thermal mass materials will help minimize the mechanical equipment systems. Maximizing daylight and good air quality reduces energy consumption and improves the user experience, while low flow water fixtures reduce water consumption. On-site renewable power generation can also reduce the building's energy footprint.

The Appendices at the end of this report include financial analysis, zoning & code analysis, and notes from owner meetings.



Band in front of Courtney Hotel, 1920s



Town of Philipsburg, MT, 1920s - 1930s; Courtney Hotel Located on the right



## INTRODUCTION & APPROACH

High Plains Architects takes a comprehensive approach to the feasibility process.

- The first step of the process involves observing the challenges and opportunities present. This includes conducting a thorough analysis of the building's existing infrastructure.
- Following the identification of challenges and opportunities, HPA seeks to identify opportunities for improvement and change. HPA works to understand the client's values and aspirations, and to identify specific areas where improvements can be made. Client engagement and feedback play a critical role in the success of the building renovation.
- HPA's approach to feasibility studies goes beyond the identification of challenges and opportunities; it also seeks to understand the character and story of the building, the client, and the community. The building has a rich history and identity, and HPA recognizes the importance of preserving and enhancing these unique characteristics while achieving client goals. Therefore, throughout the feasibility process, HPA has sought to gain a comprehensive understanding of the building's historical character and the client's needs. This understanding has been used to inform the renovation recommendations and ensure that they are aligned with the client's vision and goals.



**Our Mission:** To serve and inspire our clients, community, heritage, and environment by designing innovative, cost effective, high performance buildings that people love.

“When we build, let us think that we build forever. Let it not for present delight, nor for present use alone, let it be such work as our descendants will thank us for...”

- John Ruskin



## BUILDING HISTORY

The Courtney Hotel, located in Philipsburg, Montana, has served as a community staple since its establishment. Constructed in 1918 for brothers Maurice and Humphrey Courtney, the building has witnessed a diverse range of uses over the years.

Originally hailing from Florence, New York, Maurice and Humphrey Courtney relocated to Butte, Montana in the 1890s, where they worked as miners. They later moved to Philipsburg, where they found success with their manganese mine, the Kentucky Favorite. Using profits from their mine during World War I, the Courtney brothers enlisted the services of building contractor Clifton, Applegate, and Lawler to bring the Courtney Hotel to life. Prior to the hotel's construction, the site housed "two Chinese laundries... located in buildings constructed of unfinished lumber."<sup>1</sup> Construction of the new masonry building commenced in 1918, and by 1919, the hotel was completed and operational.<sup>2</sup>

The multi-purpose building housed the Granite County Garage in the basement and a car dealership and showroom for Overland automobiles on the first floor. The second and third floors had offices and hotel rooms, each equipped with a porcelain sink. Some rooms featured private bathrooms, while others shared communal facilities in the hallways.

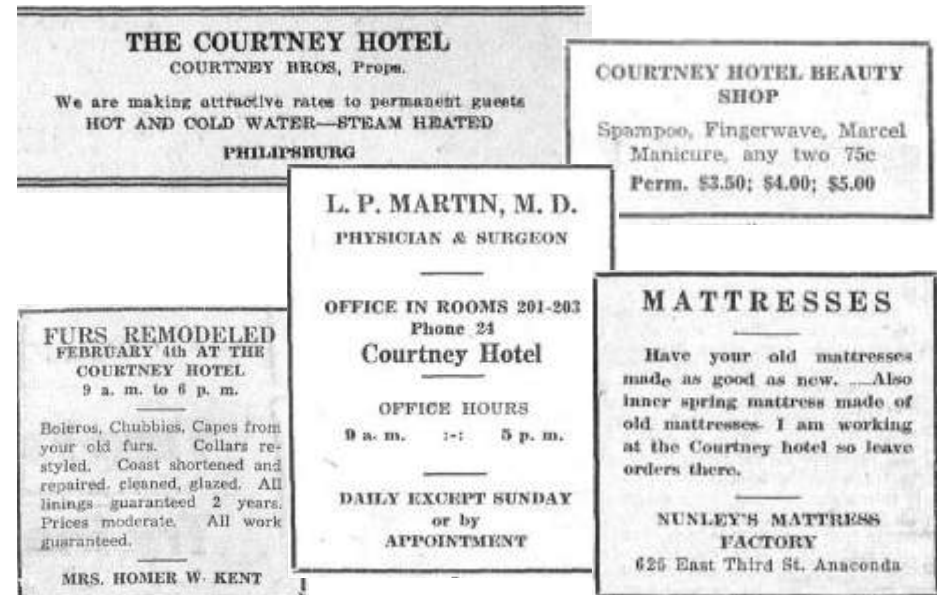
Under the Courtney brothers' stewardship, the building served the community in various capacities, in addition to the mechanics shop, car dealership, and hotel; office spaces were leased to professionals like physicians, surgeons, optometrists, deputy tax collectors, furriers, mattress repairmen, and beauticians. Hotel rooms were regularly occupied by permanent residents, miners, schoolteachers, and travelers.

Humphrey Courtney managed the hotel from 1919 until his retirement in 1957. The property was then acquired by Jack and Gert Lorenz, who renovated and reopened it as the Pintlar Hotel in June 1958. The first-floor car dealership was transformed into a restaurant and bar, with two dining rooms, a bar, and a cocktail lounge. The remodel also featured a lobby with a hotel desk extending into the hall.<sup>3</sup>

<sup>1</sup> GCHS Problems Class. "Early Philipsburg History Chinatown." *Philipsburg Mail*, August 7, 2014.

<sup>2</sup> Stafford, Michael. "Upstairs' Shadows Reveal the Former Life of the Museum." *Philipsburg Mail*, September 2, 2010.

<sup>3</sup> Stafford, Michael. "Former Hoteliers Remember the Golden Days of Yesteryear." *Philipsburg Mail*, September 2, 2010.



Philipsburg Mail Advertisements, 1930s

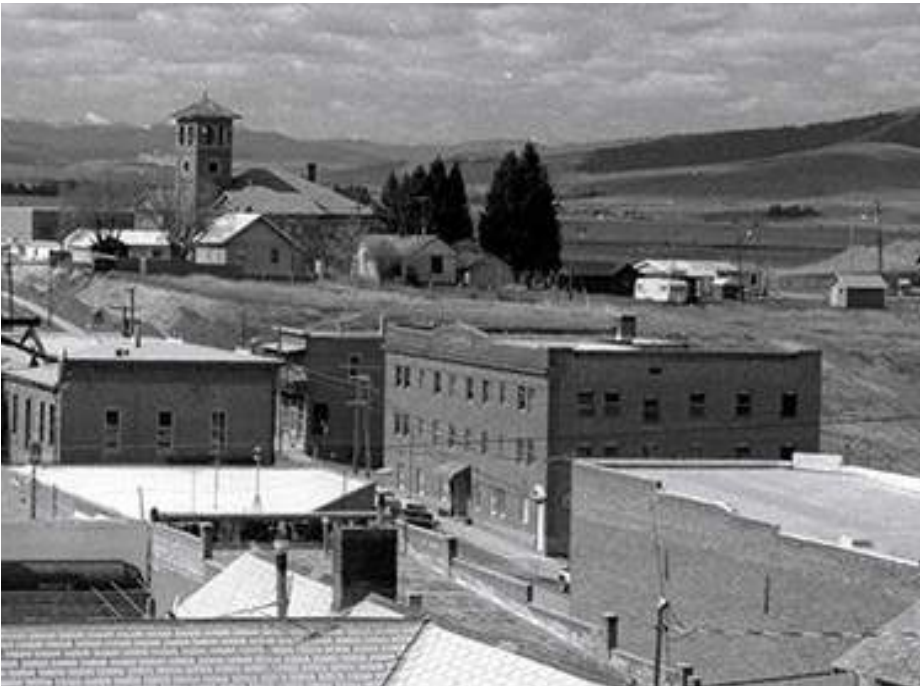


Courtney Hotel, 1918





Courtney Hotel Southeast Corner, 1980s



Courtney Hotel Northeast Corner, 1994

In 1960, Rita Finch assumed management of the Pintlar Hotel, maintaining its name. During her tenure, room rentals without a private bathroom were priced at \$3.00 per night, while those with a private bathroom were \$5.00 per night.<sup>4</sup> Finch operated the bar and restaurant until a decline in business led to the closure of the restaurant. In preparation for winter, Finch would procure a railroad car of coal, with her children assisting in transferring it to the basement.<sup>5</sup> In 1965, Charles Lindbergh even visited a friend residing at the Pintlar Hotel.

Finch managed the hotel until 1970. In 1971, the hotel sold to Mr. and Mrs. Eldrige Peterson and reopened as the Pintlar Hotel under the management of Mr. and Mrs. Bill Fischer.<sup>6</sup> In 1978, the hotel was sold to Jim and Yvonne Herron and reopened as The Pintlar Hotel and Lounge.<sup>7</sup> The building continued to operate as a hotel on the upper two floors, a bar and lounge on the first floor, and rentable storage space in the basement until the 1980s.

In the 1980s, Flint Creek Valley Bank assumed ownership, leaving the building vacant for several years. In 1990, the bank generously donated the structure for use as a museum. On May 23rd, 1992, the Granite County Museum & Cultural Center held its grand opening. Volunteers extensively renovated the first floor, adding a great room, service kitchen, bathrooms, gift shop, and main museum displays. The museum later expanded into the basement, incorporating a mining display. To this day, the Granite County Museum & Cultural Center occupies the basement and first floor, while the upper two levels remain vacant.



- 4 Stafford, Michael. "Former Hoteliers Remember the Golden Days of Yesteryear." *Philipsburg Mail*, September 2, 2010.
- 5 Stafford, Michael. "Former Hoteliers Remember the Golden Days of Yesteryear." *Philipsburg Mail*, September 2, 2010.
- 6 "Pintlar Hotel Back in Business." *Philipsburg Mail*, February 4, 2021, sec. From the Archives.
- 7 "Hotel Has New Owners." *Philipsburg Mail*, February 16, 1978.



## EXISTING CONDITIONS

### Site:

The historic Courtney Hotel is situated on a sloping 0.285-acre parcel. The northern boundary of the lot adjoins an existing dirt alley, serving as the entrance to a dirt parking area located on the western portion of the lot. On the southern side, the lot abuts a sloping dirt road known as West Stockton Street. To the east, the property is adjacent to South Sansome Street, a gently sloping paved road featuring sidewalks, curbs, and parallel parking. The structure occupies the eastern half of the lot and has an approximate building footprint of 6,000 square feet. Notably, the building incorporates a walk-out basement, with the first-floor level at grade on the east facade and the basement level at grade on the west facade. The site has minimal vegetation.

### Exterior:

#### Overall:

The Courtney Hotel has brick masonry construction for its first, second, and third floors, with the basement level crafted from cast-in-place concrete. All masonry appears to be in fair to good condition. In 2010, all original wood windows on the first, second, and third floors were replaced with vinyl windows, but the historic wood window brickmould was retained. The basement windows appear to retain their original wood frames, complemented by concrete sills.

The upper corners of the building, specifically the northeast, northwest, and southeast, are adorned with masonry battlements, while the southwest corner boasts a masonry chimney. Enhancing the architectural detailing, a stone parapet cap gracefully envelops the upper edge of the parapet on all façades.

Some horizontal and vertical cracking is visible on the exterior unreinforced concrete foundation walls and will require further investigation by a structural engineer.

#### East Façade:

The primary street façade of the building faces east and serves as the main entrance for the current owner and occupant, the Granite County Museum & Cultural Center. Adorned with raked multicolored face bricks arranged in a running bond pattern, the east façade exudes a distinctive aesthetic. A painted concrete bulkhead gracefully envelops the sloping base of the façade, adding structural and visual interest.

The middle of the east façade's parapet has a stepped brick pediment, prominently displaying a metal sign bearing the inscription "Courtney



East Facade, 2023



Northeast Corner, 2023





West Facade, 2024



North Facade, 2024

Bros" and the construction year, 1918. A decorative sheet metal cornice seamlessly wraps the corner from the east façade to the south façade, contributing to the building's overall architectural charm. Just below the cornice, a patterned band of basket weave masonry and a narrow belt course, consisting of two rows of bricks laid in a common bond pattern, traverse the building's face. Further down, a single row of soldier course brick runs across the façade, serving as the header for the third-floor windows, while the first and second-floor windows boast jack arch masonry headers. A belt course of rowlock brick, wrapping around to both the north and south façade, serves as the sill for the second-floor windows. The remaining first floor and third-floor windows have individual rowlock brick sills.

Positioned at the center of the east façade is the main entrance to the building. This historically significant entrance, originally designed for vehicle ingress and egress from the car showroom, now features a square recessed entry with double doors flanked by side-lites. Above the entrance, a non-original fabric awning provides shelter from the elements. Towards the north end of the façade, a framed wall marks the location of the historic hotel entrance door, with the original triangular door portico anchoring above it.

#### South Façade:

The south façade of the Courtney Hotel is highly visible and acts as a continuation of the east façade. It features raked multicolored face bricks arranged in a running bond pattern. The concrete basement foundation wall is more prominent as it extends from the sloping ground to the first floor window sills.

Continuing from the east façade, the metal cornice extends across the entirety of the south facade. Mirroring the east facade's design elements, a patterned band of basket weave masonry and a narrow belt course, composed of two rows of bricks laid in a common bond pattern, adorn the building's face just below the cornice. Consistent with the design language, a single row of soldier course brick spans the facade, serving as the header for the third-floor windows. The first and second floor windows have a steel lintel rather than a masonry header. A continuous belt course of rowlock brick acts as the sill for the second floor windows, while individual rowlock sills grace the third floor windows. Abutting the foundation wall, the first floor windows feature concrete sills. Additionally, a metal fire escape facilitates egress from the second and third floors, with a second-floor window repurposed as a door to ensure convenient access.

#### West Façade:

The west facade, oriented towards the rear portion of the lot, serves as a secondary face of the building. Notably, it offers insight into the layout of the structure, with the second and third floors creating a recessed void within the façade and overlooking the first-floor roof. Diverging from the decorative elements found on the east and south



facades, the west facade is characterized by common brick laid in a common bond pattern across all three floors. Given the sloping nature of the site, the west facade accommodates a walk-out basement, with the concrete foundation walls fully exposed. Within the recessed void, the second and third-floor walls are constructed of masonry but are covered with a parge coat.

The upper three levels' windows boast masonry segmental arch headers complemented by rowlock brick sills. Four windows on the first floor are covered on the interior to prevent light from infiltrating the exhibit space. Additionally, two metal basement doors provide grade-level egress, while a single metal door on the first floor leads to a covered wooden egress stair. Historical remnants on the first floor indicate the locations of previous door openings, some of which have been filled with masonry or outfitted with new windows. Nonoriginal structural ties connecting the third floor to the roof, contributing to the building's stability and architectural integrity, are visible on the exterior.

#### **North Façade:**

Similar to its counterpart on the west side, the north facade is a secondary feature, characterized by common brick laid in a common bond pattern devoid of decorative elements across the upper three levels. Due to the sloping site, the basement concrete foundation walls are exposed and painted. The sloping terrain facilitates basement access at the western corner of the facade, where a wooden double door, historically serving as a point of entry for vehicles into the basement mechanic's shop, remains intact.

Windows on the second and third floors of the north facade are adorned with segmental arch window headers, while those on the first floor lack masonry headers. Wrapping around from the east facade, a rowlock brick belt course extends across the north facade, doubling as the sills for second-floor windows. Individual rowlock brick sills adorn the first and second-floor windows, while concrete sills grace the basement windows. To maintain the integrity of the exhibit space, all first-floor windows are covered on the interior to prevent light infiltration. Historical remnants on the first floor indicate the location of a previous window which has since been infilled with masonry.

#### **Basement:**

##### **Overall:**

Renovated in the 1990s and serving as the home of the Granite County Museum and Cultural Center, the basement maintains an overall fair condition. Notable features of the basement include a significant portion of the museum's displays, particularly the prominent mining exhibit showcasing a replica mine shaft. Additionally, the basement houses an archives room, a staff workshop, and mechanical rooms. The floor-to-ceiling height measures approximately 10 feet, with exposed piping running along the ceiling. Heating for the space is



Covered windows & previous door location on the west facade.



Previous door opening infilled with masonry at the exterior west egress stair.





Exposed clay tile ceiling from the one-way clay tile joist system.



Basement mine shaft exhibit.

exclusively provided by gas-fired heater units suspended from the ceiling. A narrow concrete stairway facilitates access to the basement from the first floor. Furthermore, there are multiple floor level changes throughout the basement, which present potential tripping hazards for patrons.

#### **Wall Assemblies:**

The exterior perimeter walls consist of cast-in-place concrete, with certain sections furred out and finished with gypsum board, while other sections remain exposed concrete. Interior partition walls predominantly consist of non-original 2x wood framed walls finished with gypsum board. Further investigation will be required to verify wall assemblies.

#### **Structure:**

The basement utilizes a concrete beam and column structure. The concrete beams are 14 inches deep by 16 inches wide and the square concrete columns are 16 inches by 16 inches in size. Further examination of the structural system by an engineer will be necessary to determine if any members are damaged or undersized.

#### **MEP:**

The building's main mechanical room is in the southwest corner of the basement and is where the utilities (gas/elect) enter the building. There is a non-functioning boiler in a room adjacent to the current mechanical room. The unused boiler will require asbestos abatement before removal. There are two propane boilers and ceiling mounted radiators that are in fair condition and will be considered for future uses of the basement and first floor. All MEP systems will need review by an engineer. Lighting is in fair condition depending on the location and should be considered for upgrades in future concepts.

#### **Finishes:**

Originally functioning as a mechanics shop, the basement exhibits highly utilitarian finishes. The floor is an exposed painted concrete slab, with select areas finished with non-original carpeting. Wall finishes vary from painted concrete to finished gypsum board. Notably, a substantial mural adorns the west concrete wall. Certain rooms have a finished gypsum ceiling, while the predominant ceiling material consists of exposed clay tiles from the structural system. Additionally, concrete columns are enveloped in wood plank wraps while the concrete beams above are exposed.

#### **First Floor:**

##### **Overall:**

Renovated in the 1990s and home to the Granite County Museum and Cultural Center, the first floor is generally in fair condition. It presently hosts a museum gift shop, historical exhibits, an office, a community room equipped with a catering kitchen, and the sole operational restrooms in the building. The original floor-to-ceiling height

measures 10 feet, although a suspended ceiling was introduced during the renovation process. Thermal insulation is provided by Polyiso insulation sheets are attached to the underside of the ceiling structure. Heating for the space is exclusively supplied by electric baseboard heaters.

#### Wall Assemblies:

The exterior perimeter walls feature triple-wythe brick construction, accompanied by 2x wood furring strips housing batt insulation, and finished with gypsum board. Interior walls are composed of 2x wood framing, also finished with gypsum board. Further investigation will be required to verify wall assemblies.

#### Structure:

The first floor utilizes a concrete beam and column structural system. The existing floor assembly is a one-way clay tile joist system finished with a concrete topping.

#### MEP:

The first floor is heated with perimeter baseboard heaters that are in fair condition, there is no forced air provided. The plumbing system is in fair condition from 1990's renovations. There is an existing catering kitchen on this level with an older range, refrigerator, and coffee maker. All MEP systems will need review by an engineer. Lighting is in fair condition depending on the location and should be considered for upgrades in future concepts.

#### Finishes:

The first floor features minimal historic finishes overall. Throughout the space, unoriginal flooring like carpet, resilient flooring, and tile are prevalent. An unoriginal ACT ceiling is suspended 9 feet overhead, concealing concrete beams. The current wood window casings and base trim also appear to be non-original. Painted gypsum serves as the predominant interior wall finish, including the wrapping of the original concrete columns. Additionally, unoriginal flat-panel wood doors are present throughout the area.

#### Second & Third Floor:

##### Overall:

Unlike the basement and first floor, the second and third floors have remained unoccupied since the early 1980s and have largely remained untouched since their days as a hotel. The layout of these upper levels is characterized by a U-shaped floor plan, distinguishing them from the lower two levels. Both floors maintain an approximate floor-to-ceiling height of 9 feet. Notably, all plumbing fixtures on these upper levels have been removed and no heating or cooling systems are in place.

#### Wall Assemblies:

The exterior perimeter walls consist of triple-wythe bricks, finished



First floor ACT ceiling & insulation.



Historic stair to the second floor.





Third floor structural strapping.



Third floor hall finishes.

with plaster directly applied to the interior face of the masonry wall. There is no indication of insulation present at the exterior walls. The interior walls are constructed with 2x wood framing, finished with lath and plaster. However, their condition ranges from fair to poor, with certain areas exhibiting water damage, fire damage, and peeling paint. Further investigation will be required to verify wall assemblies.

#### Structure:

The second and third floors employ a wood-framed structure, unlike the first floor and basement. The second-floor system features 2x wood floor joists filled with concrete, running from north to south. The finished maple hardwood flooring is directly laid on these joists. On the third floor, the floor system consists of 2x12 wood floor joists supporting a diagonal wood plank subfloor, finished with maple hardwood flooring. Along the west wall, sections of the hardwood have been removed to accommodate structural strapping, connecting the west masonry wall and floor diaphragm.

#### MEP:

The second and third floor currently does not have a heating, cooling or ventilation systems and would need to be upgraded for future uses. MEP systems are nonexistent or in fair to poor condition depending on the location. All MEP systems will need review by an engineer.

#### Finishes:

Many of the finishes on the second and third floors appear to be original. All walls and ceilings are constructed with lath and plaster, showcasing varying paint colors and conditions. Original wood picture rails, still in fair condition, delineate the juncture between the ceiling and walls in each hotel room. The original wood base trim remains intact throughout, also in fair condition. Within the hallway corridors, the original chair rail molding remains, creating a wainscoting effect, and is in fair condition. The majority of the flooring consists of exposed original maple wood, though some areas feature non-original carpet and linoleum. While the windows themselves have been replaced, the original wood window casings remain in fair condition throughout the second and third floors.. Original two-panel wood doors, along with their original hardware, are retained throughout the upper two levels. The corridor doors feature original operable glazed transoms above. The original decorative wood door casings remain in good condition. The original wood stairs, covered with a carpet runner on each riser and tread, remain intact. The existing stairs feature a wood guardrail with square balusters and box newel posts, maintaining their historic integrity in fair condition.

#### Attic & Roof:

The attic structure is primarily 2x8s at 16 to 18 inches on-center with no insulation. The existing membrane roof needs further examination to determine conditions and remaining lifespan.



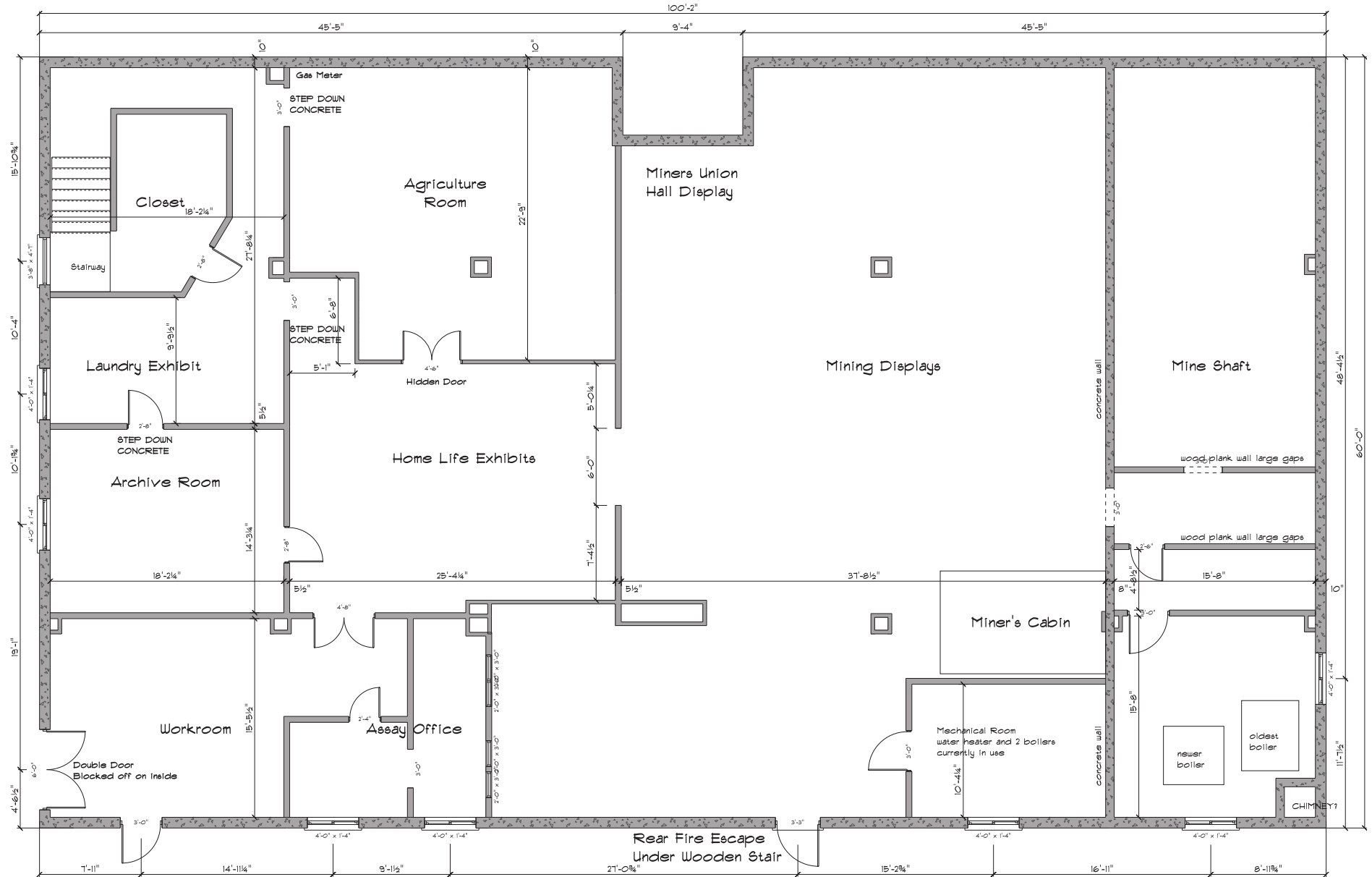


## VICINITY MAP





## EXISTING PLANS - BASEMENT



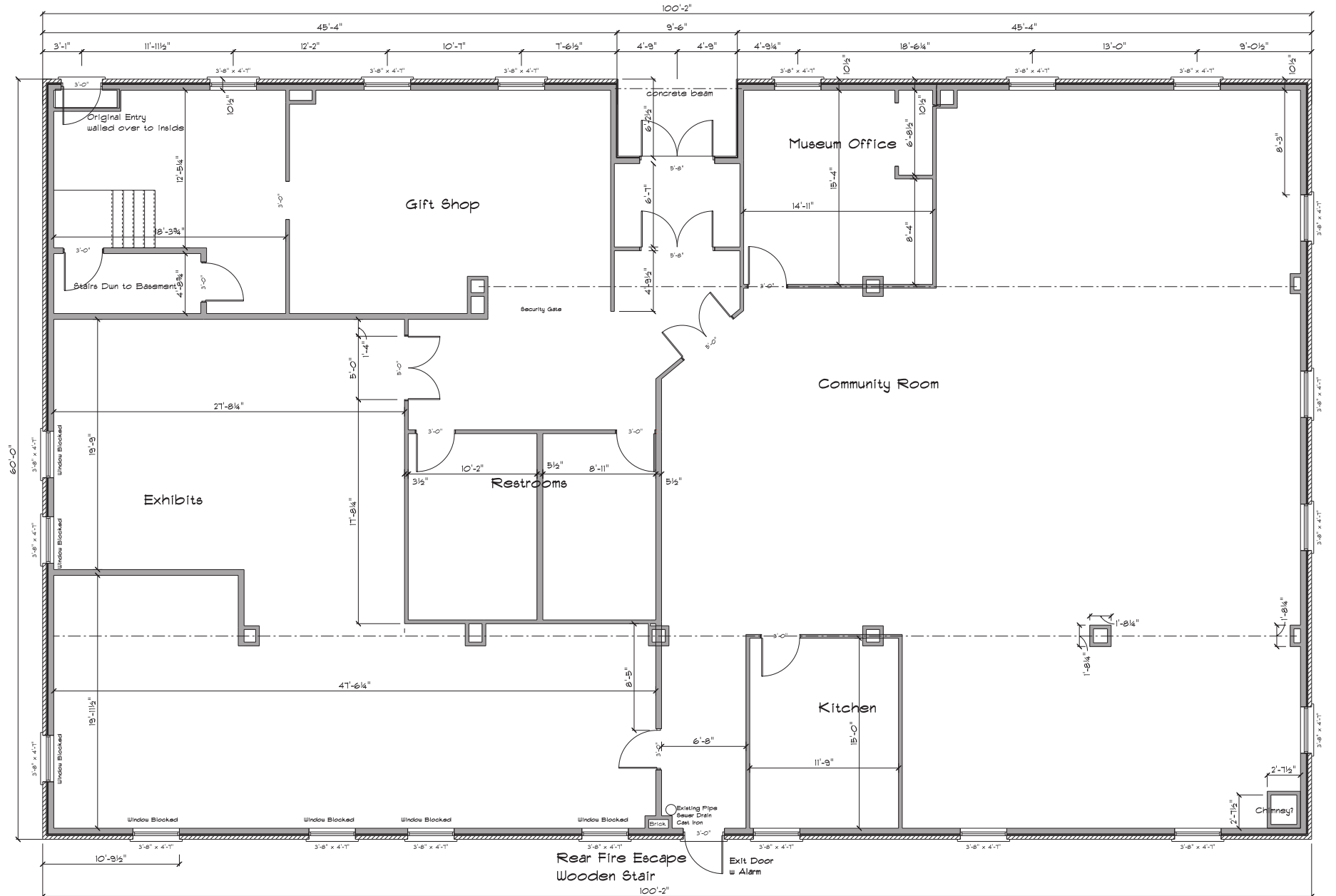
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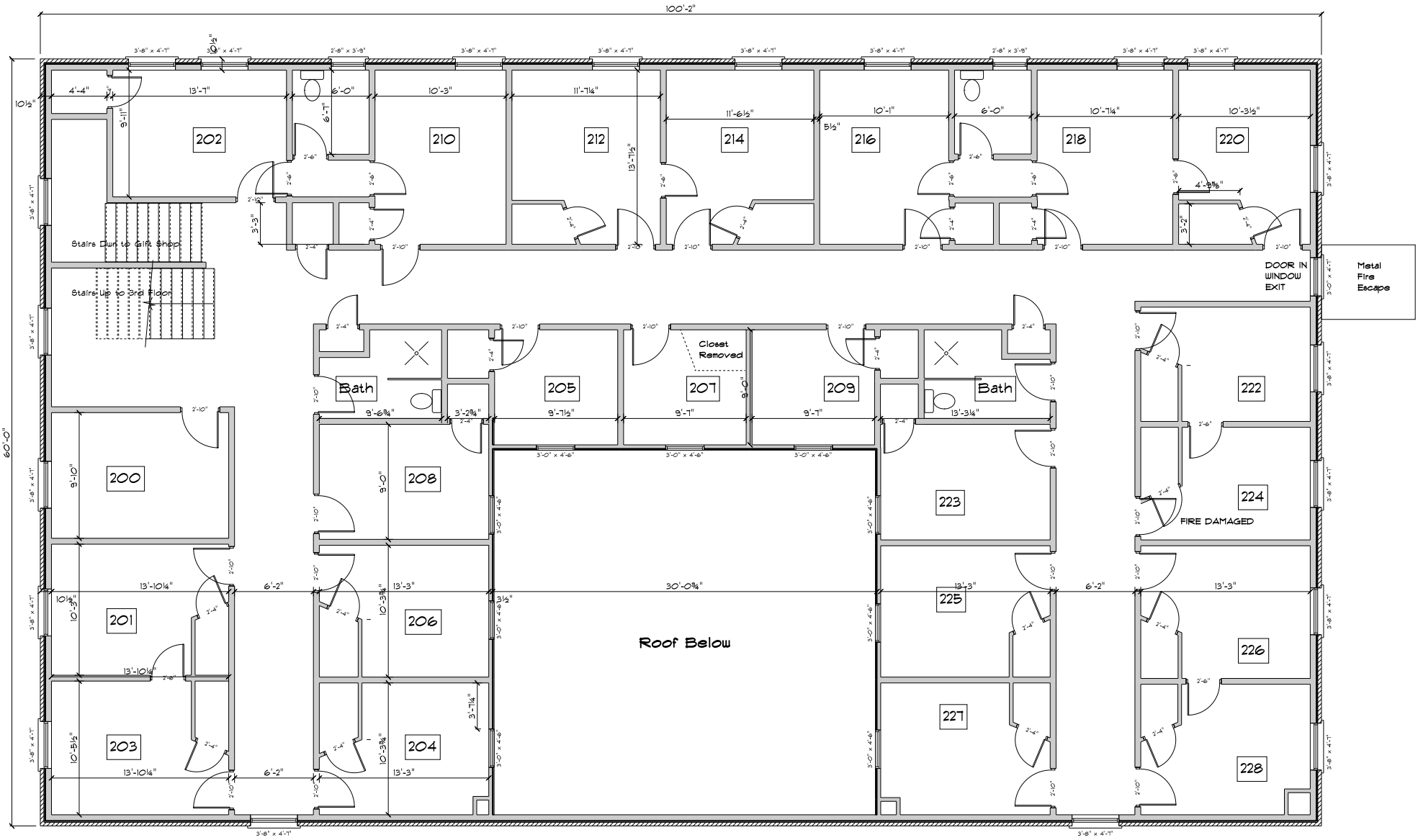
## EXISTING PLANS - FIRST FLOOR



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## EXISTING PLANS - SECOND FLOOR



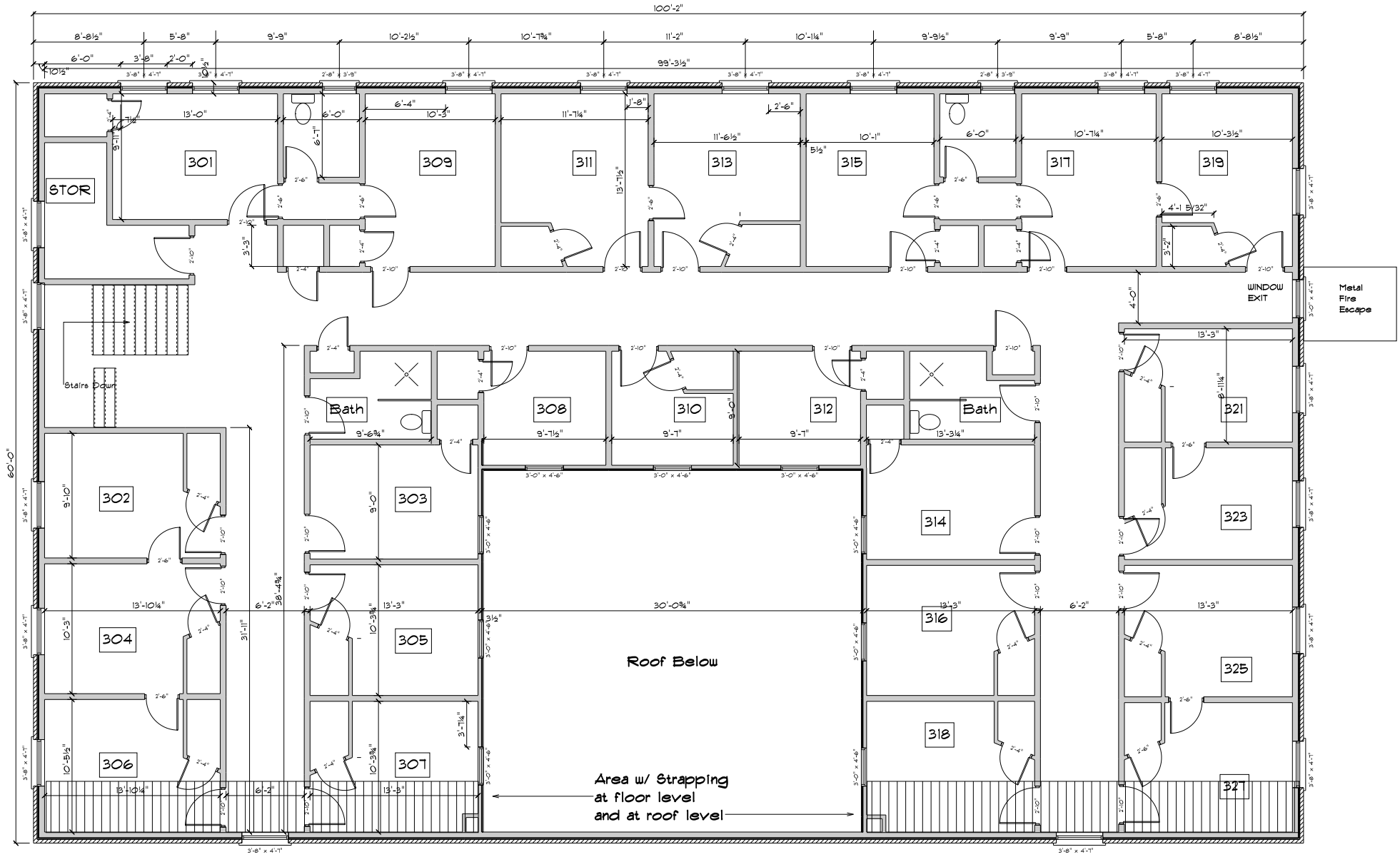
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## EXISTING PLANS - THIRD FLOOR

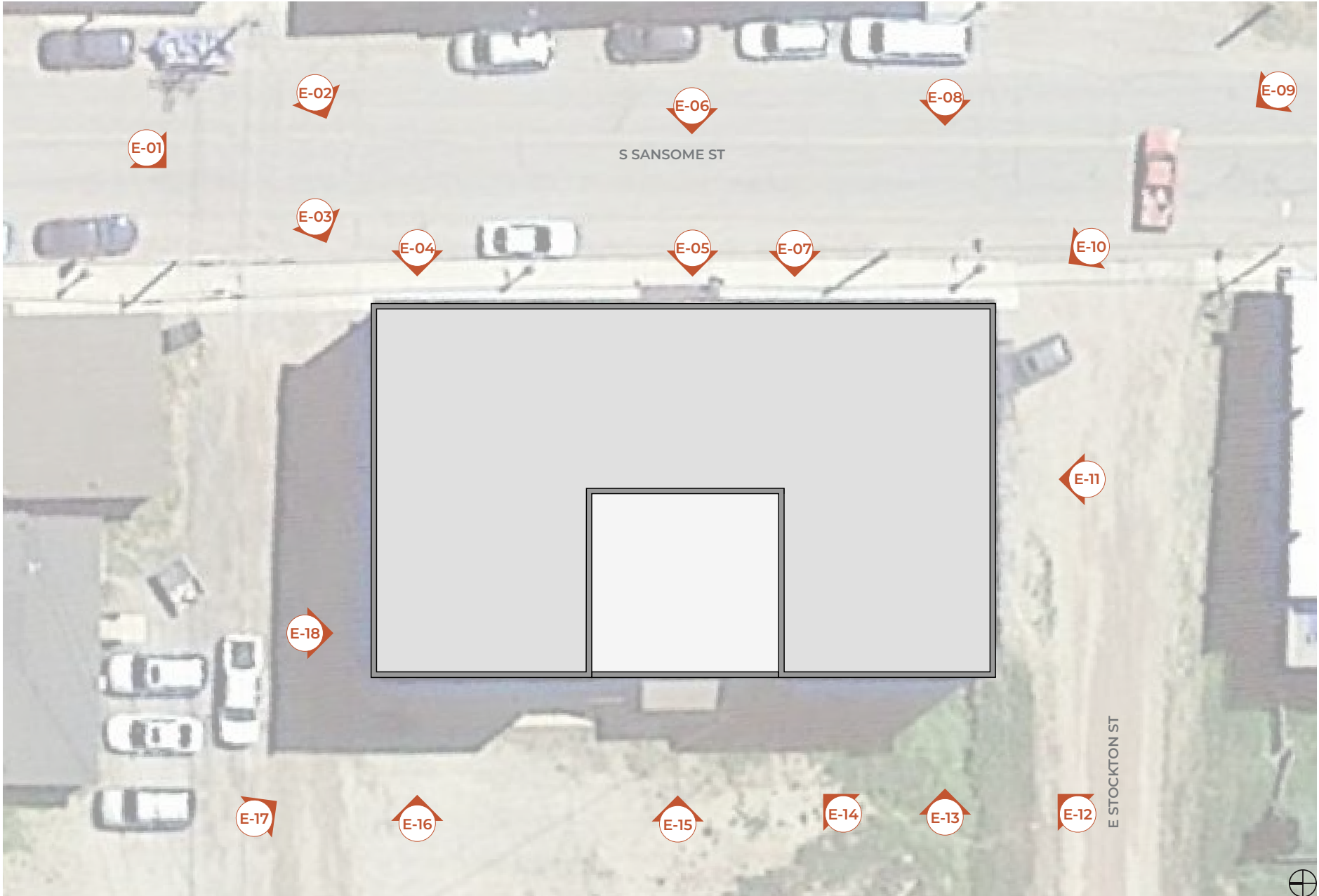


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Existing drawings provided by Owner. Accuracy & completeness of drawings not verified by Architect.





## EXISTING PHOTOS - EXTERIOR







E-01



E-02



E-03



E-04



E-05



E-06





E-07



E-08



E-09



E-10



E-11



E-12





E-13



E-14



E-15



E-16



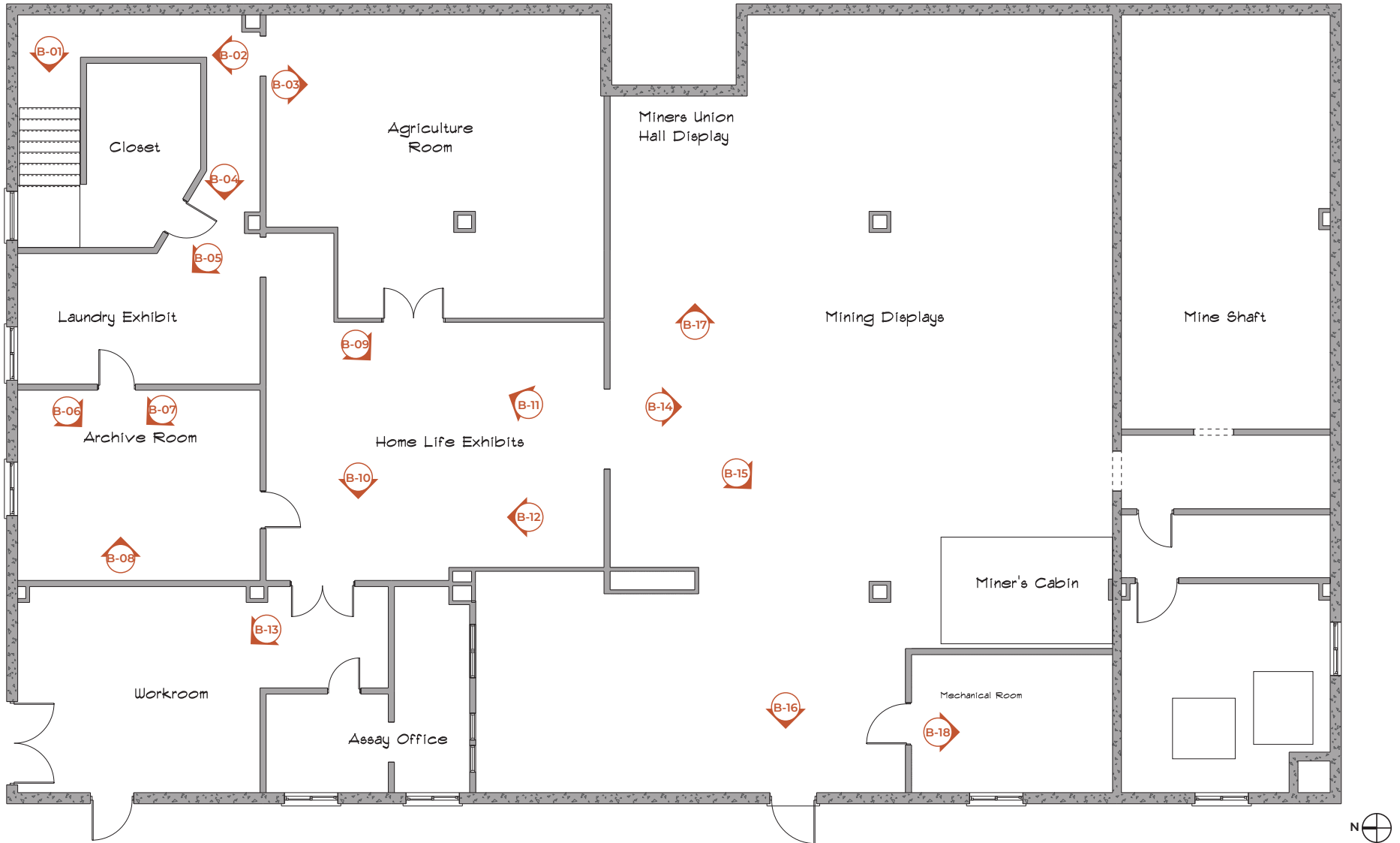
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E-18



## EXISTING PHOTOS - BASEMENT



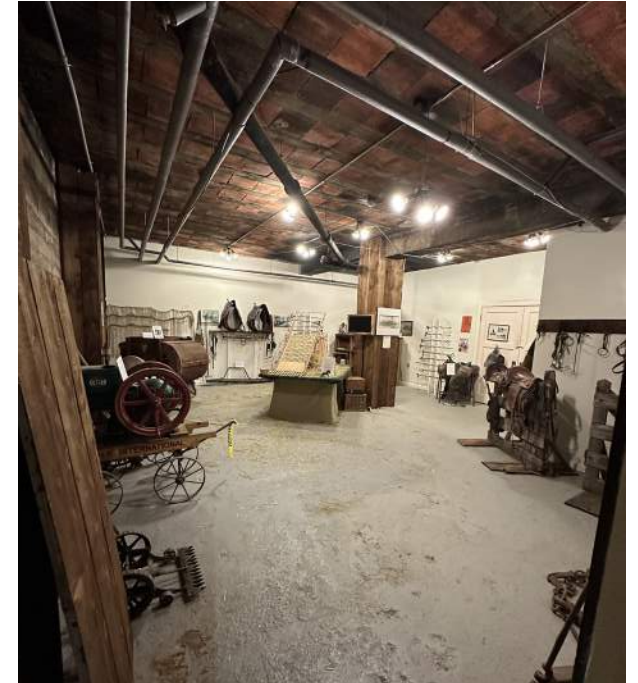




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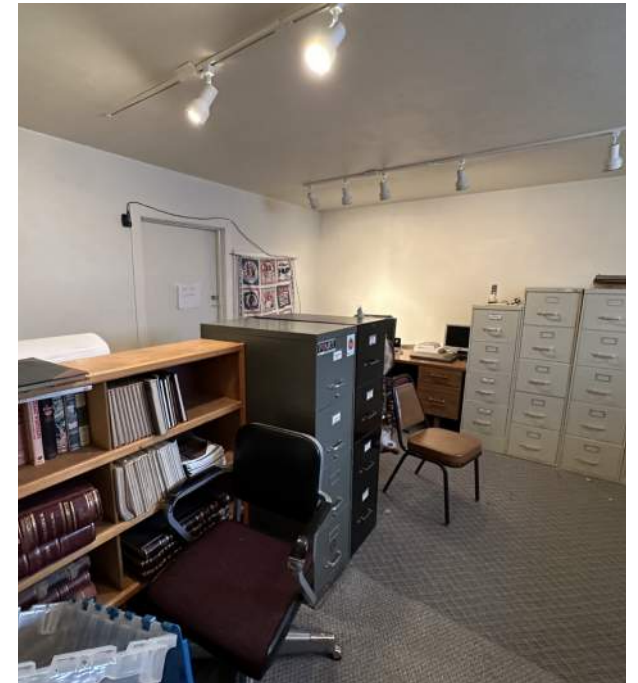
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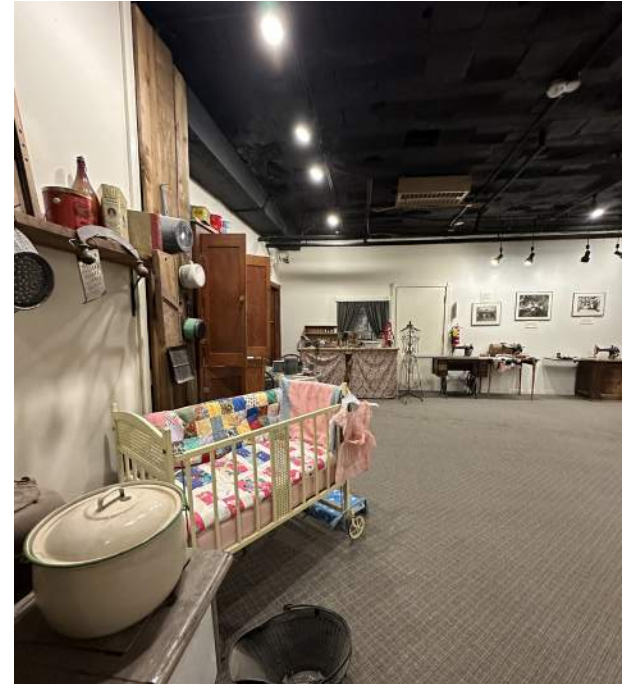
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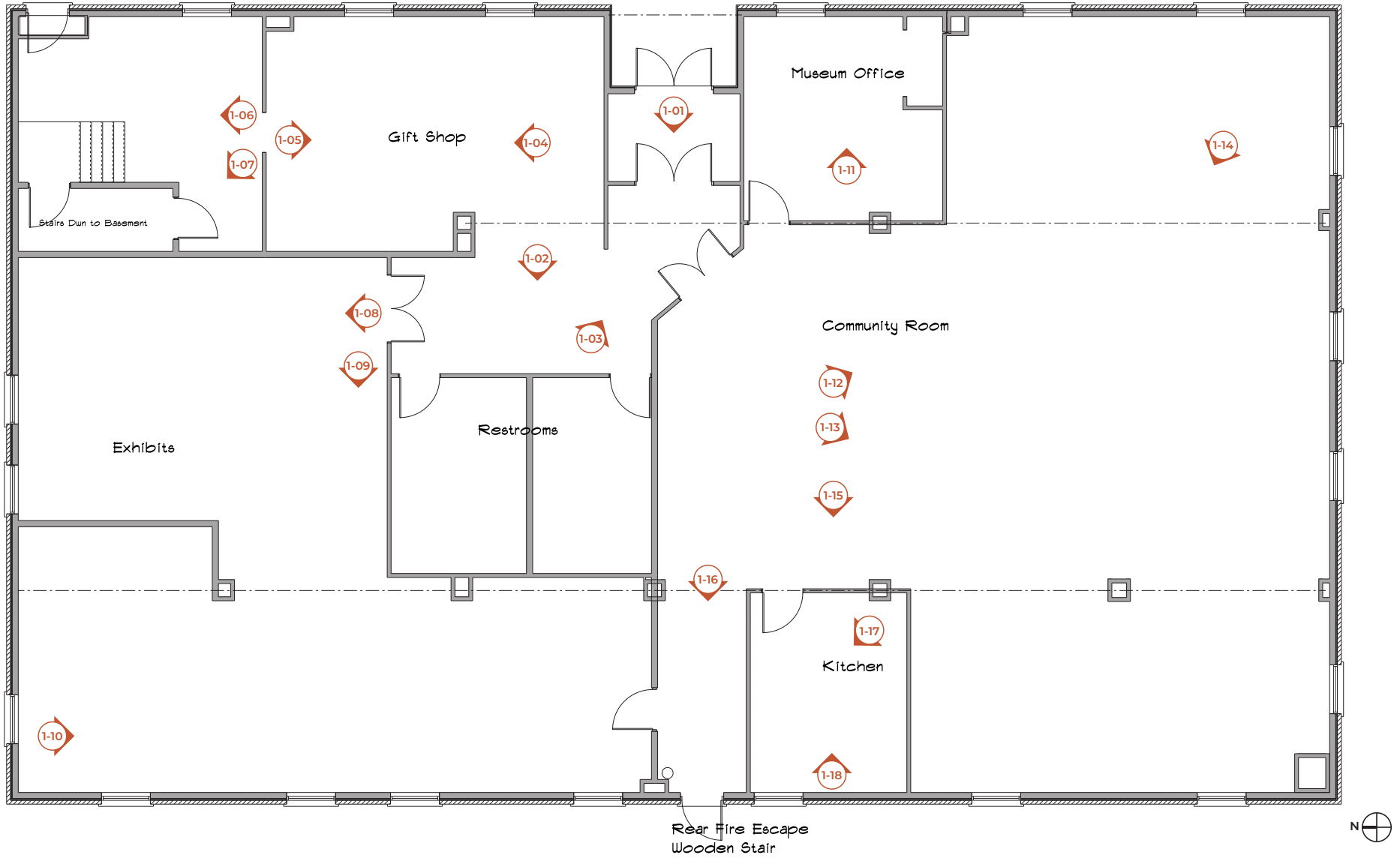
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## EXISTING PHOTOS - FIRST FLOOR







1-01



1-02



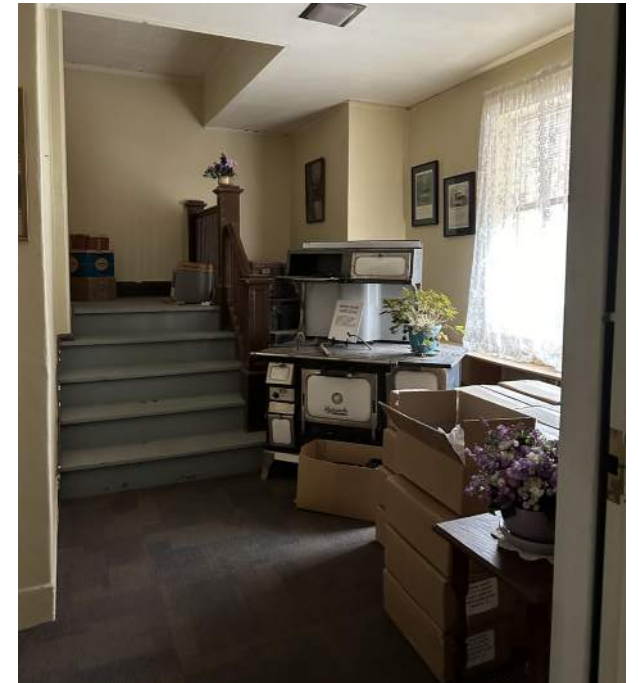
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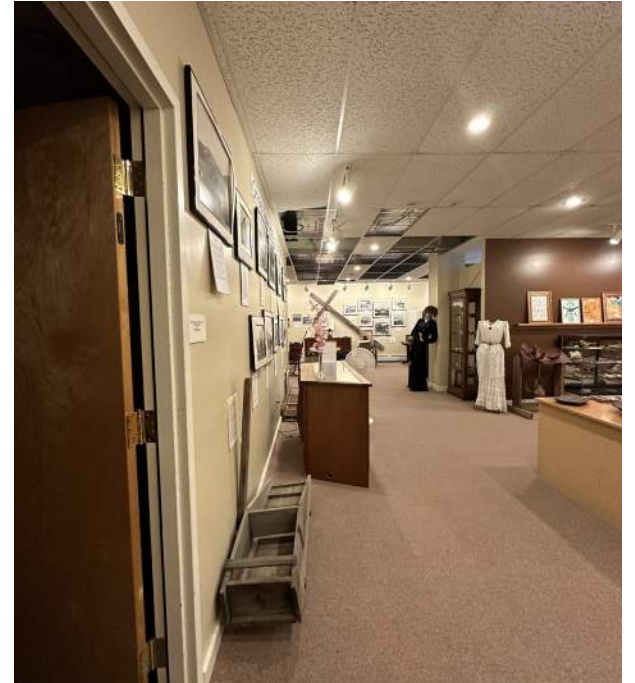




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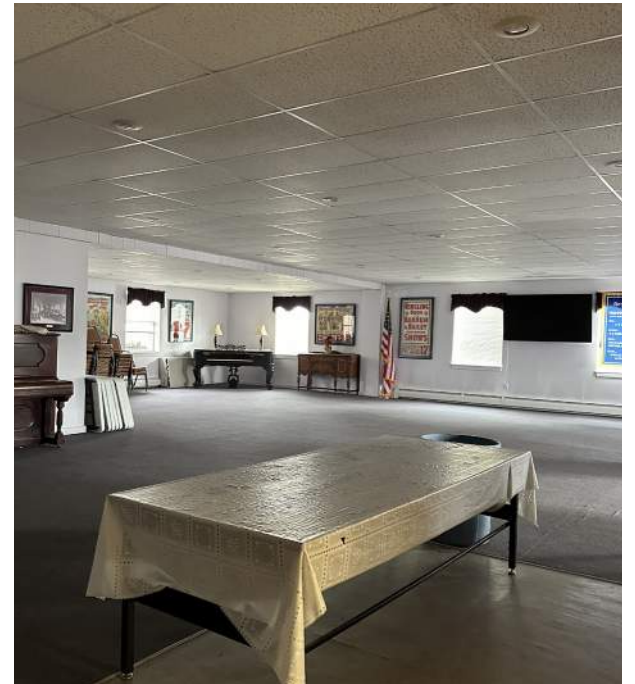
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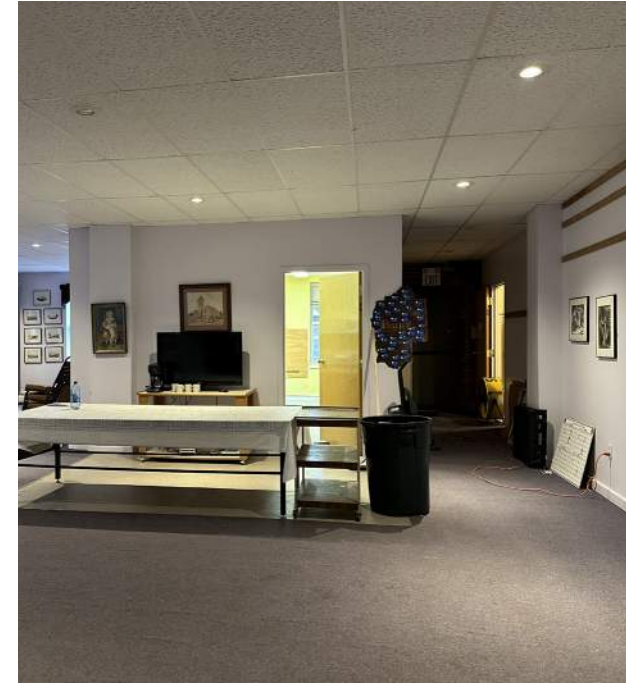




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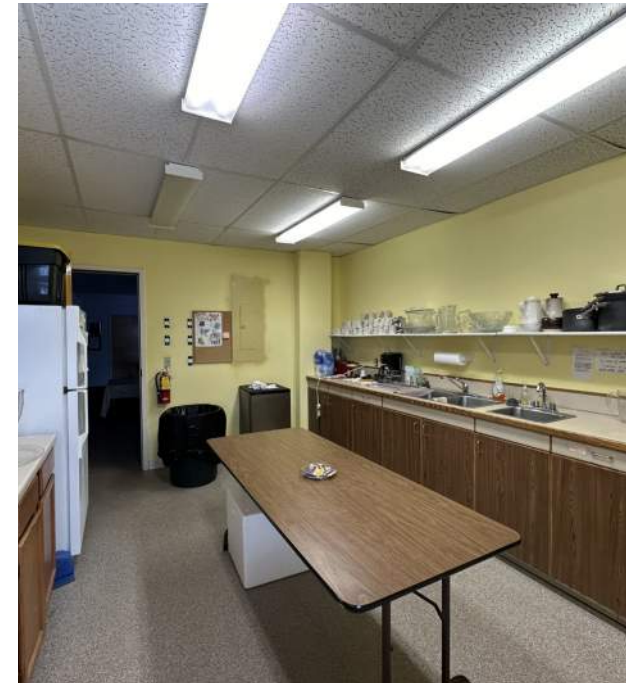
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## EXISTING PHOTOS - SECOND FLOOR







2-01



2-02



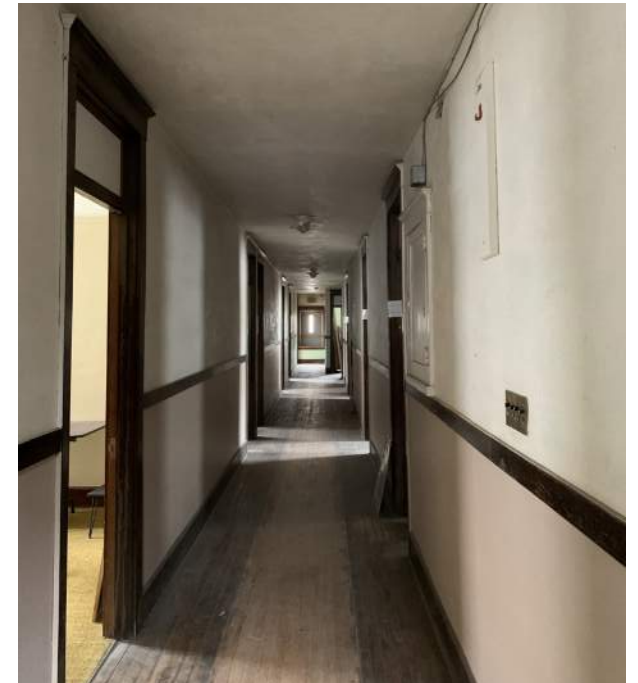
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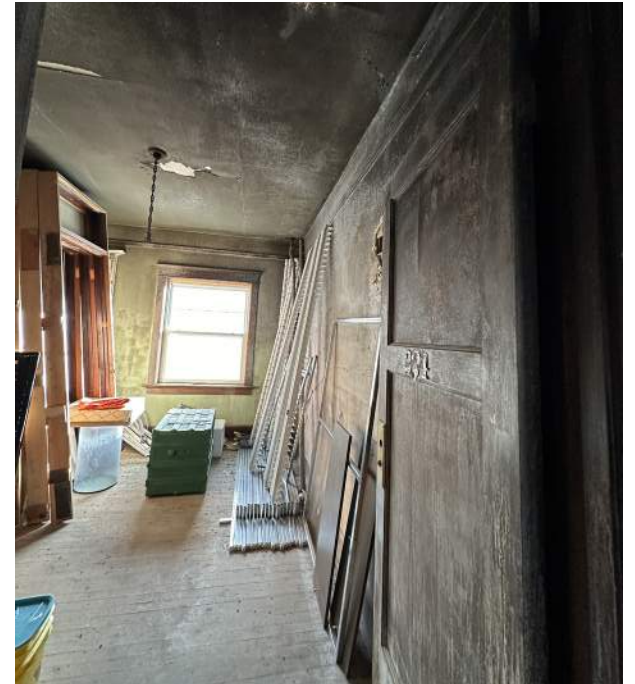




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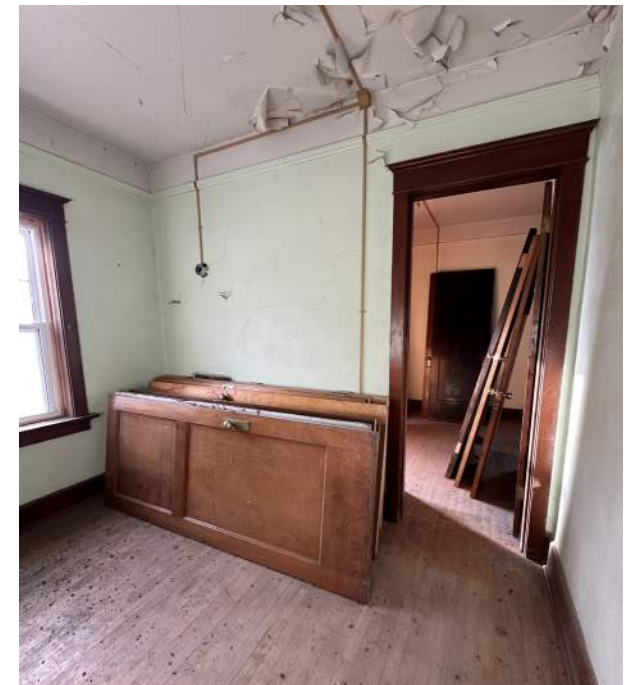
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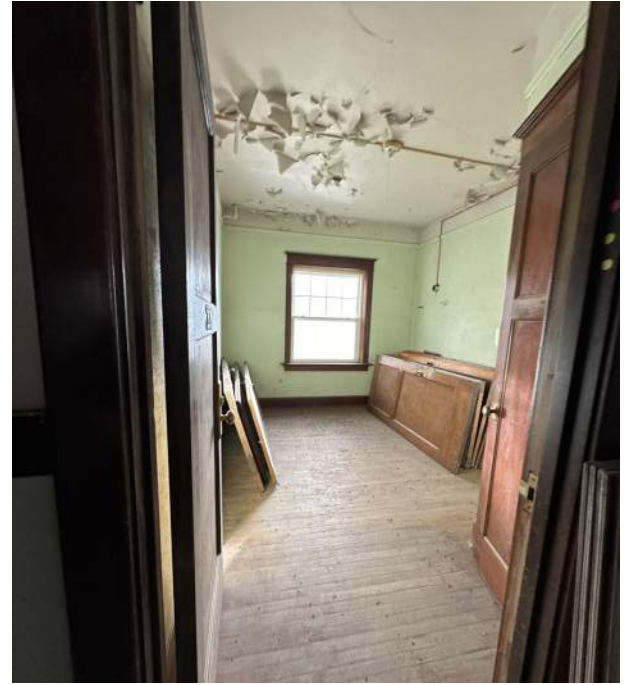




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2-21



2-22



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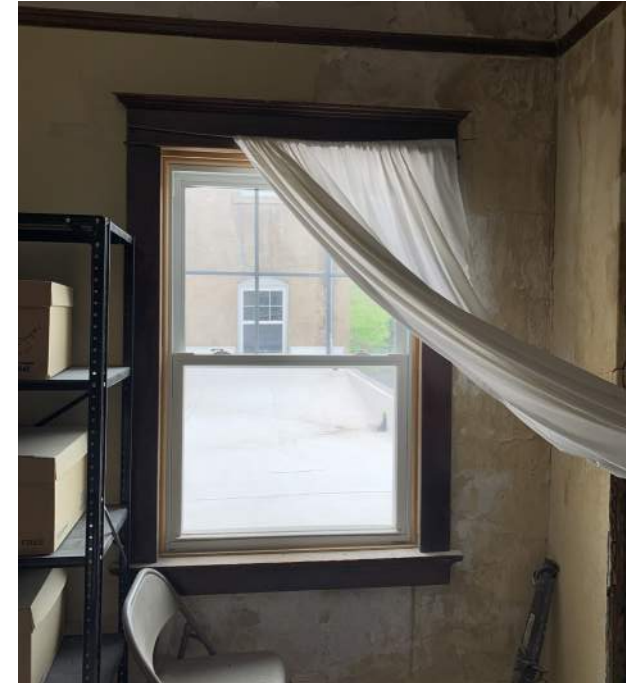




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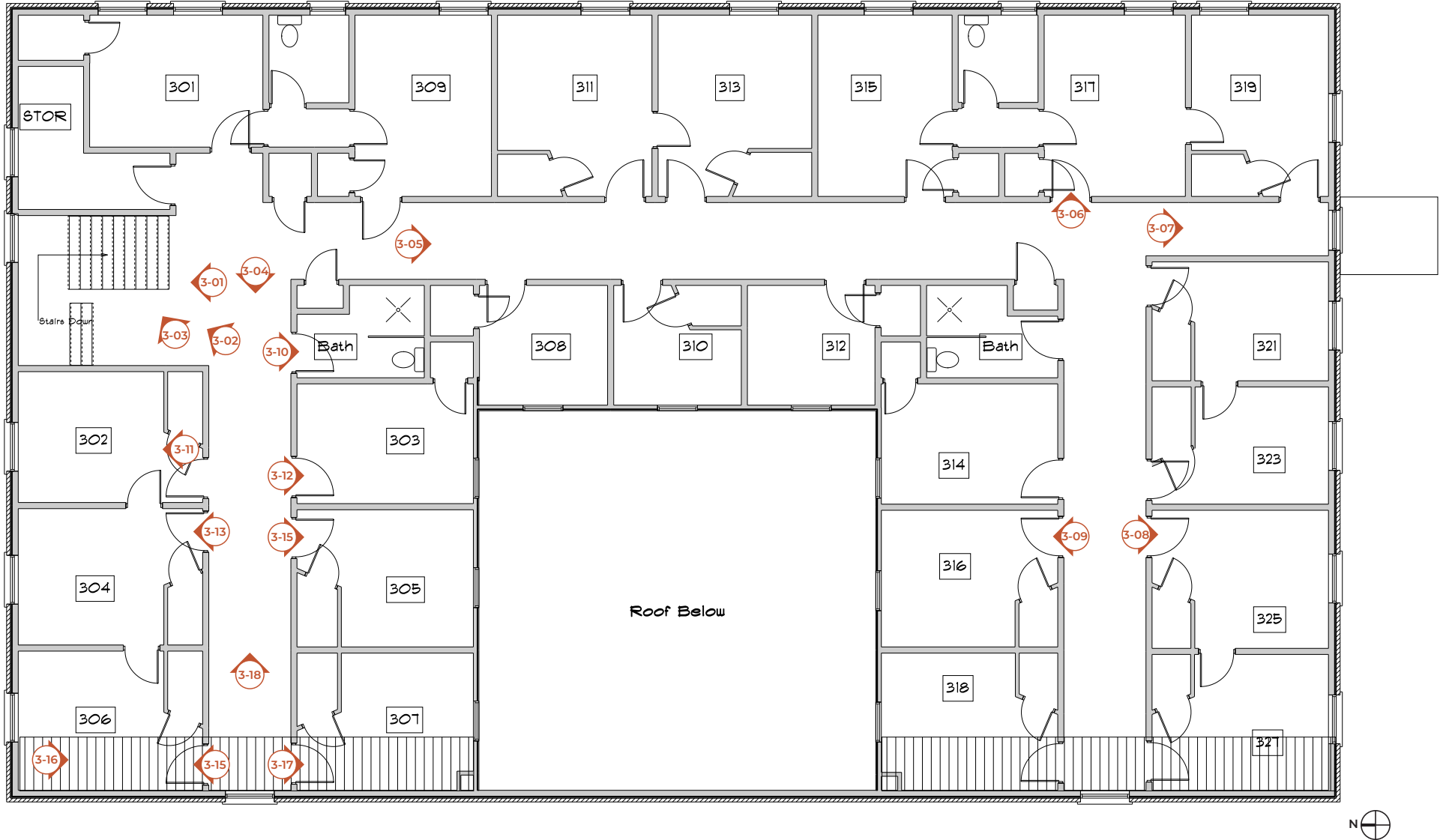
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## EXISTING PHOTOS - THIRD FLOOR



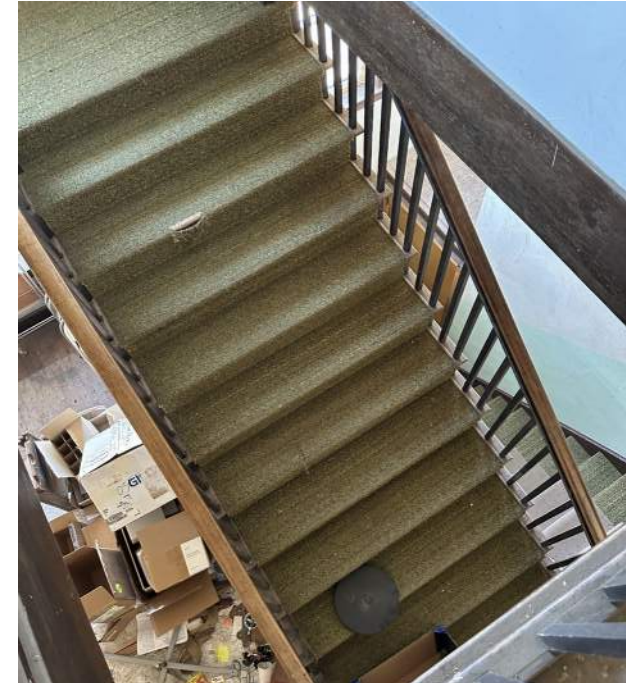




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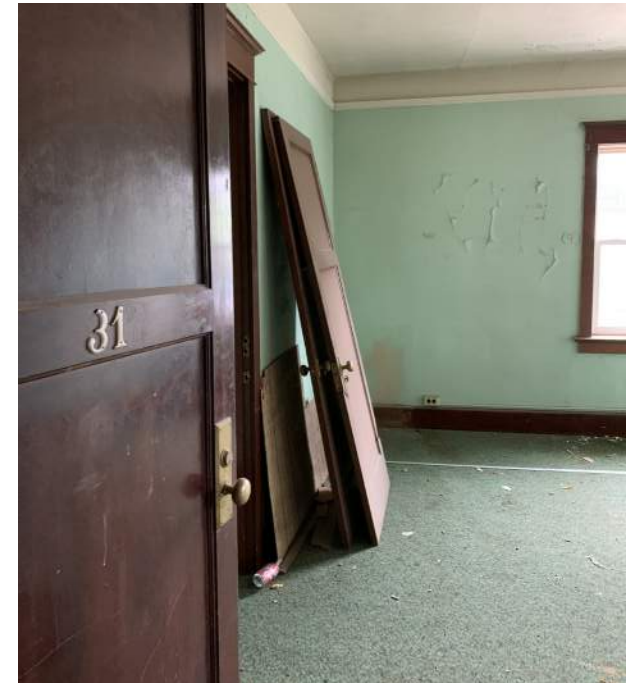
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## VISION & GOALS

The rehabilitation of the historic Courtney Hotel aims to create a harmonious balance between historical preservation, cultural enrichment, community engagement, and the practical needs of the Granite County Museum and workforce housing. The project goals are as follows:

### Rehabilitation Of Historic Architecture:

- **Objective:** Repurpose the historic Courtney Hotel to serve the current and future needs of the local community while maintaining the historic integrity of the building and participating in the Federal Historic Preservation Tax Incentives Program.
- **Key Performance Indicators:** Economic impact on the community, adherence to historical preservation guidelines, awareness of the building's historical significance.

### Economic Revitalization:

- **Objective:** Contribute to the local economy during construction by creating jobs and utilizing local labor. Contribute to the local economy post-construction by attracting tourists and tenants, increasing foot traffic, spending, and business development within the community.
- **Key Performance Indicators:** Jobs created, local laborers involved, positive economic impact on the community, visitor numbers, spending.

### Sustainable Practices:

- **Objective:** Incorporate sustainable and environmentally friendly practices in the redevelopment process.
- **Key Performance Indicators:** Energy efficiency measures, use of sustainable materials.

### Affordable Workforce Housing:

- **Objective:** Rehabilitate the upper two levels to provide affordable and comfortable housing for the local workforce.
- **Key Performance Indicators:** Affordability metrics, occupancy rates, tenant satisfaction, housing demand from the local workforce.

### Heritage Tourism Development:

- **Objective:** Promote the town as a destination for heritage tourism by showcasing its historical assets and rehabilitating the historic Courtney Hotel.
- **Key Performance Indicators:** Increase in heritage tourism, increase in visitor spending.



### Museum Accessibility:

- **Objective:** Ensure that the Granite County Museum is accessible to a broad audience, including residents, tourists, and school groups.
- **Key Performance Indicators:** Increased number of visitors and community engagement with museum events.

### Public Space Integration:

- **Objective:** Provide space that fosters community interaction and sense of belonging for museum visitors, community members, and tenants. Enhance the usage of the Community Room for public and private events (Rotary Club, Chamber of Commerce, Yule Night, Arts & Craft shows, school groups, weddings, funerals, etc.).
- **Key Performance Indicators:** Usage of Community Room for community events.

### Civic Pride:

- **Objective:** Foster a sense of civic pride and community identity by highlighting the Courtney Hotel's historical significance within the community and the residents' roles in its rehabilitation. Increase participation in community events, like Flint Creek Valley Days and Miners Union Day, held at Granite County Museum.
- **Key Performance Indicators:** Resident engagement with historical narratives and community events celebrating the building and community's local history.

### Community Resilience:

- **Objective:** Foster community resilience by ensuring that the rehabilitation of the Courtney Hotel contributes to the overall well-being and socio-economic stability of the local community.
- **Key Performance Indicators:** Economic indicators, housing stability measures.

### Financial Sustainability:

- **Objective:** Develop a sustainable financial model that supports Granite County Museum's year-round operations and staff, the ongoing maintenance, paid staff, and enhancement of the building.
- **Key Performance Indicators:** Availability for paid staff, revenues generation from the museum and housing components, diverse funding sources



## PROJECT PROGRAM

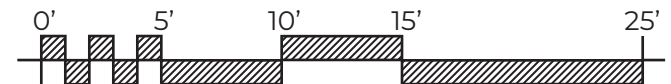
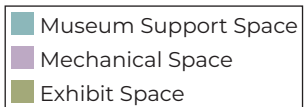
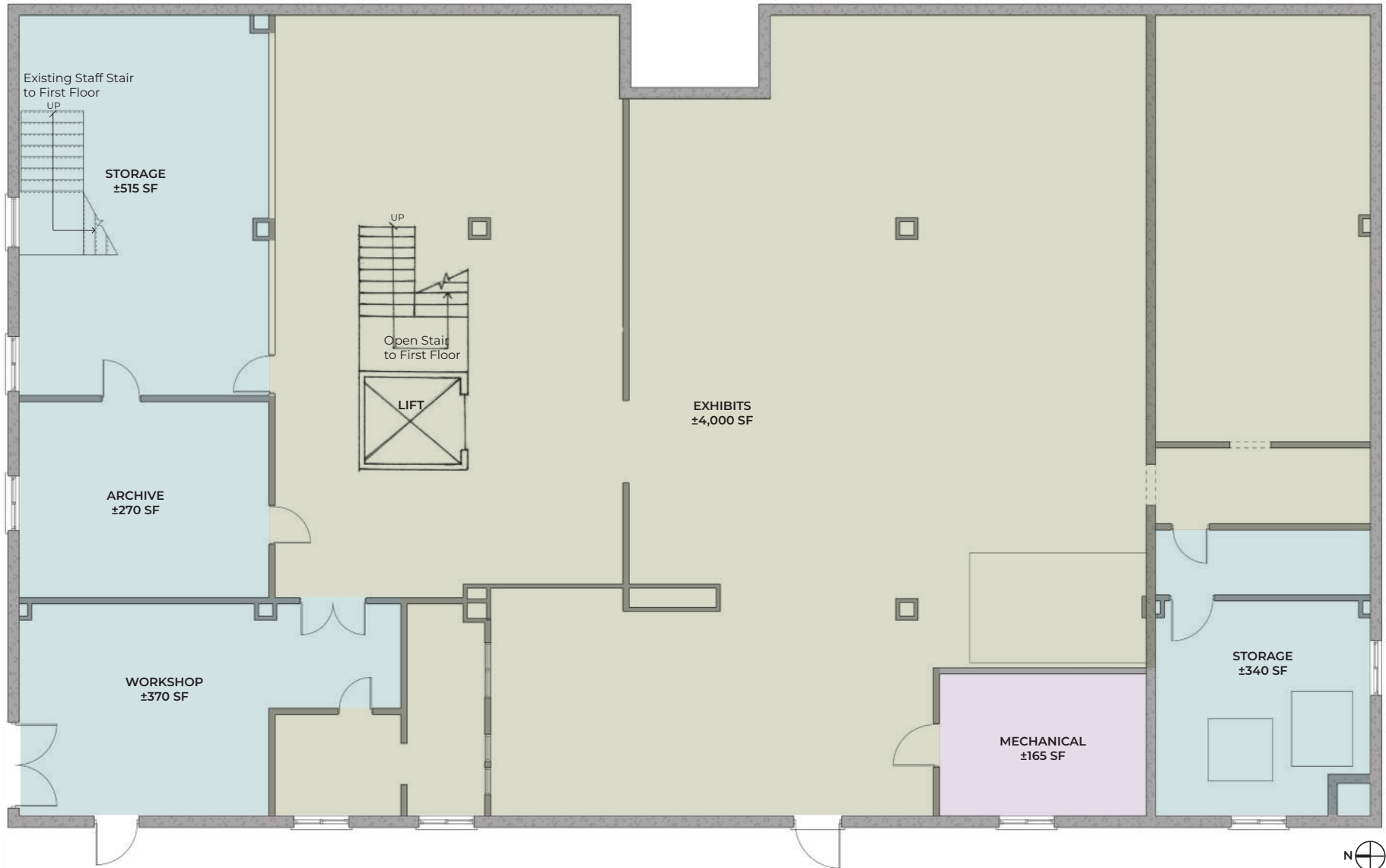
	Program	Area (SF Estimates)	Quantity	Notes
Basement	Exhibit Space	4,000		
	Archives	270	1	
	Workshop	370	1	
	Storage	TBD	2	Museum storage space is dependent on required mechanical space.
	Mechanical	TBD	1	Existing mechanical space might need to increase to allow for new mechanical.
	Existing Stair	N/A	1	Existing staff stair to basement might require modifications per code.
	New Stair	TBD	1	New open stair connecting the basement and first floor.
	Lift	TBD	1	New lift connecting the basement and first floor.
First Floor	Lobby		1	Shared lobby for museum and community room.
	Community Room	2,170	1	Event space separate from the museum that can be rented to the public.
	Catering Kitchen	TBD	1	Located within community room for events.
	Office	200	1	Museum administrative office.
	Admissions/Sales Counter	TBD	1	Centrally located admissions/sales counter that serves museum patrons upon entrance.
	Gift Shop	470	1	Gift shop located adjacent to sales counter and entrance.
	Exhibit Space	1,320	1	
	Restroom	TBD	2	Restrooms shared between museum and community room. (1) Male Restroom with plumbing fixtures per code. (1) Female Restroom with plumbing fixtures per code.
	Tenant Entrance & Lobby	230	1	Private entry for residential tenants utilizing historic entrance.
	Existing Stair	N/A	1	Existing historic stair connecting the first floor to the upper levels.
	New Stair	TBD	1	New stair connecting the first floor and basement.
	Lift	TBD	1	New lift connecting the first floor and basement
	Exterior Egress Stairs	TBD	1	New exterior egress stair on the west facade.



	Program	Area (SF Estimates)	Quantity	Notes
Second Floor	Studio	300 - 330	5	
	1-Bed Unit	330 - 525	5	
	Laundry	TBD	1	Shared tenant laundry facilities.
	Roof Deck	370	1	New shared roof deck with tenant access.
	Existing Stair	N/A	1	Existing historic stair to remain in place, connecting the first floor, second floor, and third floor.
	Exterior Egress Stair	TBD	1	New exterior egress stair on the west facade.
Third Floor	Studio	300 - 330	1	
	1-Bed Unit	450 - 525	3	
	2- Bed Unit	525 - 570	3	
	Laundry	TBD	1	Shared tenant laundry facility.
	Existing Stair	N/A	1	Existing historic stair to remain in place, connecting the first floor, second floor, and third floor.
	Exterior Egress Stair	TBD	1	New exterior egress stair on the west facade.
Site	Parking	TBD	TBD	Potential for leased parking spaces for tenants on the west half of the site.
	Dumpster	TBD	TBD	Combined dumpster for museum and tenants located off alley.
	Bicycle Parking	TBD	TBD	Short and long term bicycle parking for museum patrons and tenants.



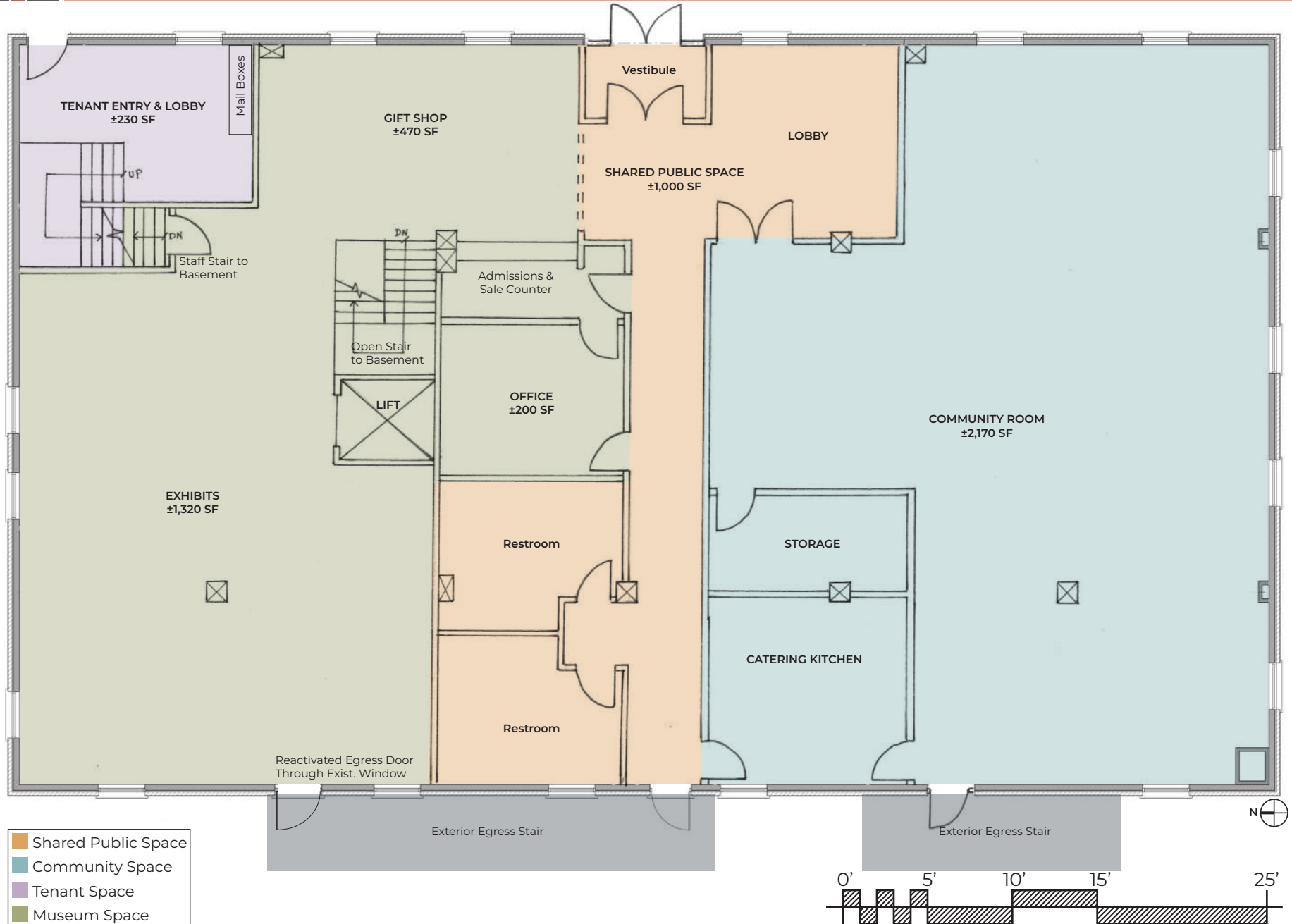
## CONCEPT PLANS - BASEMENT





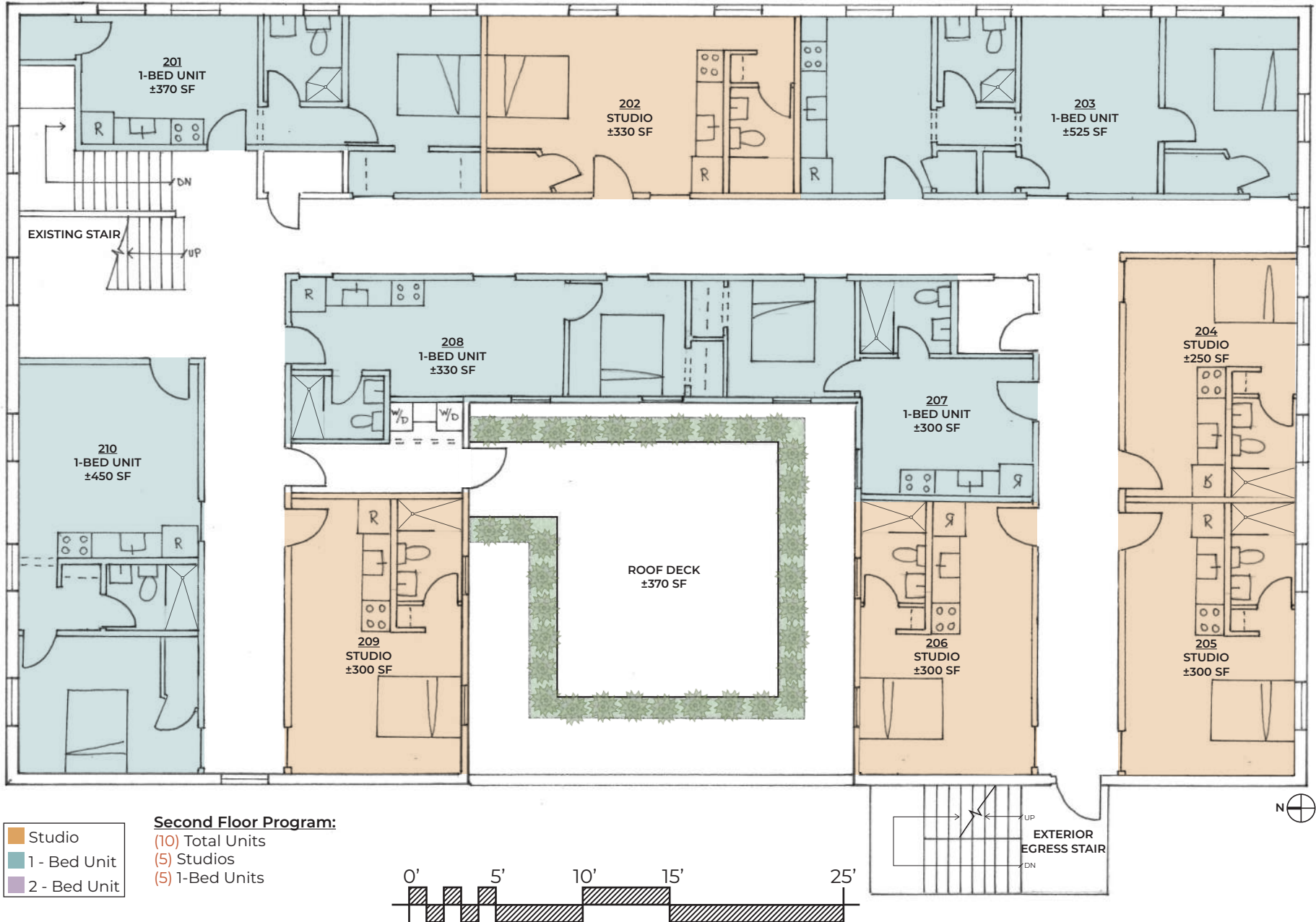


## CONCEPT PLANS - FIRST FLOOR





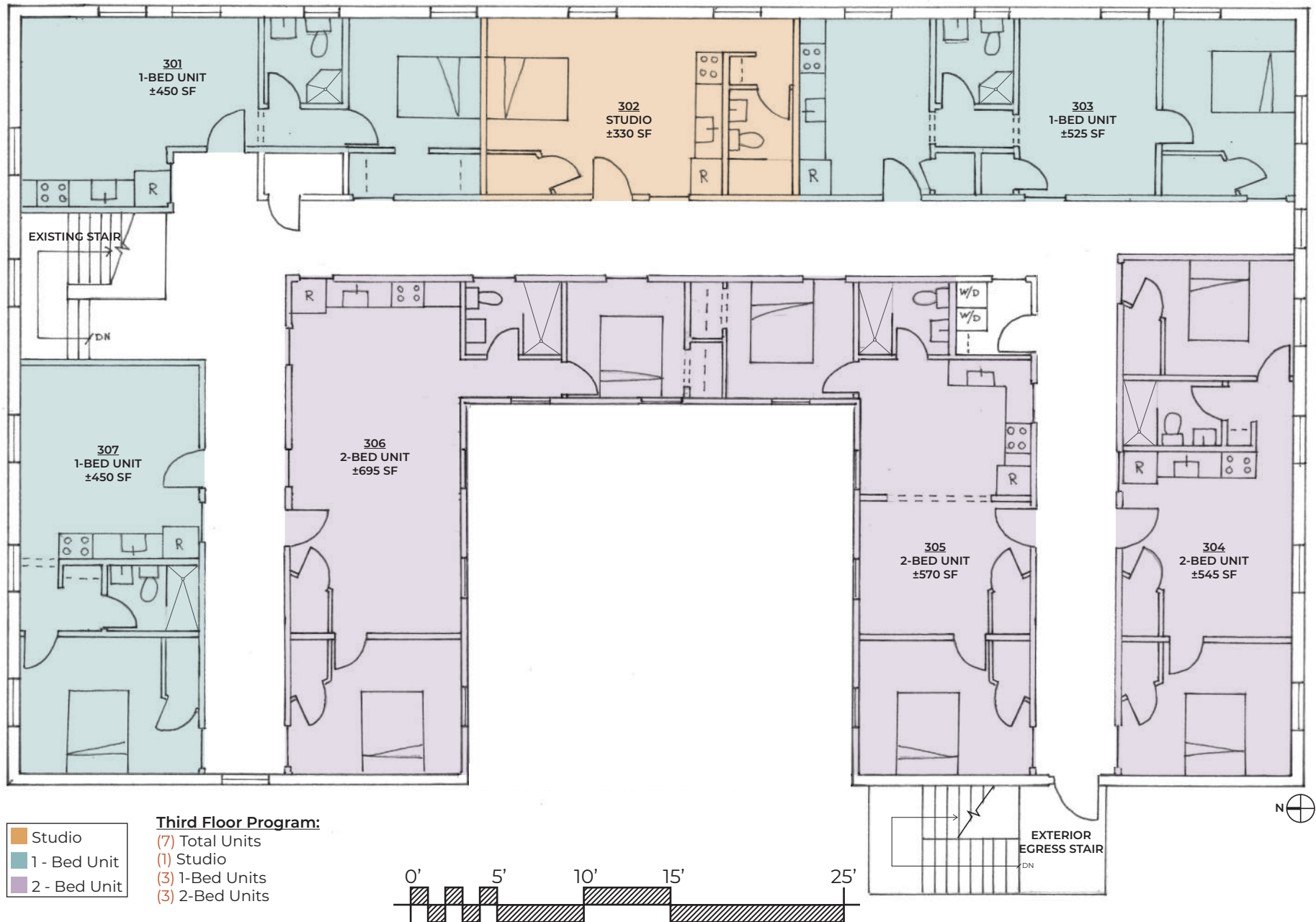
## CONCEPT PLANS - SECOND FLOOR







## CONCEPT PLANS -THIRD FLOOR





## PROPOSED RENOVATIONS

### General:

High Plains Architects starts a historical renovation project with its strategy of “listening to the building”. Existing buildings are often underutilized assets in the community, and by successfully renovating those older buildings, they become productive assets, saving financial and physical resources, reducing wasteful sprawl development, and preserving community memory. Listening to the historic Courtney Hotel building and the board of the Granite County Museum and Cultural Center, we realize a potential to transform the original program of a hotel and car dealership into spaces that can address the present and future needs of the museum and the town of Philipsburg, MT.

The basement and a portion of the main level will continue to serve as the Granite County Museum and Cultural Center, showcasing the rich history of Philipsburg and local Montana heritage. Some of the exhibit spaces and flow through those spaces could be reorganized to greater maximize display space, provide more storage, improve visitor flow, utilize natural light, and increase access for visitors with disabilities. Access could be improved with a newly dedicated museum stair and lift hoistway connecting the museum basement and main level exhibit spaces. The main level community space is planned to be more accommodating for large groups by giving it a more pronounced interior entrance and improve the space.

In response to the shortage of workforce housing in Philipsburg, the top two levels of the building are intended to turn the existing vacant rooms into apartments. The second level is planned for (10) rentable one-two bedroom apartments targeting seasonal renters and the third level is planned to provide (7) one-two bedroom units for more long-term renters. Being walkable to downtown, and close outdoor community parks, these apartments are in a prime location for emerging young professionals and young couples.

### Site:

The redevelopment concept plan utilizes the west side of the property lot, which is currently not being utilized. To provide more functionality, re-grading of the site lot could be used for apartment tenant parking, tenant trash/dumpster pick up, and a path to access connections to the nearby park amenities such as the amphitheater and skating rink located towards the southwest of the lot. Egress improvements on the west façade will also benefit from the site improvements. Landscaping will remain minimal to keep site maintenance costs low.

### Envelope:

Much of the historic character is visible in the primary historical façades on the South, East, and North sides, and is intended to remain. The primary entrance along the East will either remain as is or restored to a more historic look of its era. The secondary entrance on the East side will be reactivated as access for the residential tenant spaces on the second and third floor. Both entrances will be maintained to celebrate the historic character of the building. The west façade (which is not a primary historic side) will be updated to improve egress through the building and provide new access to the second and third level. New doors will utilize existing opening locations of either windows, doors, or infilled wall openings. To improve egress pathways, a partially enclosed exterior stair will connect the first, second and third level to the grade level.

Much of this building’s historic character is visible from the exterior materials, windows, and entryways. To reaffirm the historic character the concept design intends to maintain the exterior brick and repoint mortar as needed. Replace the 2010 vinyl windows with aluminum clad wood windows that more closely resemble a style from the original era. Reactivate the historic entrance for rental tenants that were once likely used as part of the historic hotel entrance. Any new openings in the envelope will be on the non-primary façade, the west side of the building.

Thermal performance of the building envelope is planned to be improved through a handful of strategies. Where possible, adding insulation to the exterior walls with either insulated furring walls or continuous Foam-Control Nailstrip will improve the exterior wall insulation R-values. Placing insulation into attic spaces with loose fill cellulose or foam board will improve thermal performance of those areas. Replacing windows with low U-values is another place to improve envelope performance.

### Interiors:

The custom artwork and craftsmanship that is embedded into some of the museum exhibits such as the mine display, cabin, murals, and assay room are intended to remain in place. Some of the basement and first level interior partitions that are not original, may get reorganized to improve layout, exhibit flow, and museum storage. Original wood flooring and wood trim will be salvaged and restored where possible. At the second and third level, the original corridors will be preserved per the Secretary of the Interior’s standards for the treatment of historic properties. Any new floor, wall, or ceiling finishes



on the second and third level will be coordinated to integrate with the original finishes that remain.

#### MEP:

As part of the redevelopment design process, incorporating high-performance and efficient systems is the next step. High-performance systems such as, ground source heat pumps and heat recovery ventilators, will need further review by engineers to determine their appropriateness. The existing plumbing system will need further review to accommodate the new bathroom fixture quantities and layouts. The electrical service will need further review and owner consideration to determine preferred electrical metering approach by level or units. High Plains Architects will engage appropriate MEP engineers to design cost-effective, high-performance systems.

#### Structural:

From the initial walk throughs, this building appears to be in sound structural condition that could last many more decades. The robust structural design of the original car dealership lends itself well to adaptive reuse of the concept plans. High Plains Architects will engage appropriate structural engineers as necessary.



## SUSTAINABLE STRATEGIES



LIVING  
BUILDING  
CHALLENGE



In an era marked by heightened environmental awareness and a growing emphasis on responsible resource utilization, the significance of sustainable building strategies has never been more pronounced. These strategies not only yield financial benefits for building owners but also nurture healthier, more comfortable living and working environments for occupants. Moreover, their impact resonates within communities by alleviating stress on essential infrastructures and resonates globally by curbing habitat loss, greenhouse gas emissions, and air pollutants.

**The renovation of the Courtney Hotel presents the opportunity to make the building a steward of the future by being a leader in sustainable design.**

A key initial step in a sustainable design process is identifying performance goals. Establishing the goals prior to preliminary design ensures that the building design is optimized to achieve those goals. Performance goals might include exceeding the building code's energy performance by a designated percentage, becoming a net-zero energy building, or achieving certification with one of the building certification programs such as The Living Building Challenge, LEED, Energy Star, Passivhaus, or WELL Building Standard. Engaging in high-performance design can also result in eligibility for federal tax incentives.

The LEED green building rating system is a voluntary, consensus-based, market-driven building rating system developed by the U.S. Green Building Council. The certification evaluates environmental performance over a building's life cycle, providing a definitive standard for what constitutes a "green building." It is a performance-oriented system in which credits are earned for implementing green building measures in the areas of site, water, energy, materials, and indoor environmental quality. Different levels of certification, depending on the degree to which the building performs: LEED-Certified (lowest level), LEED Silver, LEED Gold, and LEED Platinum.

The Energy Star rating system is focused purely on energy and water consumption. It issues a rating number of 1-100 based on how the building compares to similar building types with adjustments for climate. A score of 25 means that 75% of its peer buildings in the U.S. had better performance. Any score 75 or higher allows the building to carry the Energy Star designation for the year.



Urban Frontier House, Billings, MT  
Certified Living Building, LEED Platinum Certified



Once performance goals have been selected, then strategies are required to meet those goals. The following strategies are general in nature and would need to be tailored to your building.

## STRATEGIES FOR ENERGY EFFICIENCY

### 1. MINIMIZE DEMAND FOR ENERGY:

**a) Optimize building envelope insulation:** The Courtney Hotel is a renovation of an existing, historic, masonry building. Optimizing the building envelope will include insulating the floor from the crawl space, adding insulation to the interior side of the exterior masonry walls, and insulating the attic. A blower door test could be used to ensure that the building envelope is very tight, minimizing unwanted air infiltration. The building has significant thermal mass due to its masonry and concrete construction; adding thermal mass in the form of phase change material will reduce the size and run time of HVAC systems and improve thermal comfort for occupants.

**b) Maximize daylighting:** In typical office buildings in the U.S., 30% of the energy is used for artificial lighting, while the amount increases to 37% in schools. Beyond reducing energy use, daylighting also has some noteworthy human health and productivity benefits.

**c) Maximize natural ventilation:** Similar to daylighting, there are human productivity benefits when there is exposure to outside air. According to various studies, there is a 1-11% increase in productivity in spaces where occupants can control ventilation, and the comfort zone for occupants expands when there are operable windows, skylights, or natural ventilation.

### 2. RECYCLE HEAT FLOWS:

Heating and cooling ventilation air to conventional buildings uses a considerable amount of energy. When natural ventilation strategies are not used, such as during winter or in the middle of summer days, we propose to run ventilation air through a heat recovery ventilator (HRV) or Dedicated Outside Air System (DOAS), which tempers incoming air by running it through a heat exchanger with the exhaust air. This will reduce energy use for tempering ventilation air by 75% or more.

### 3. EFFICIENTLY SUPPLY ENERGY NEEDS

**a) Utilize highly efficient equipment:** Supply remaining energy needs as efficiently as possible: After maximizing the advantages of the steps described above, some additional energy is required to maintain interior comfort. A ground-source heat pump is an excellent option for efficient thermal comfort. (See Appendix IV. for Mechanical Narratives).

**b) Utilize highly efficient lighting:** Highly efficient lighting and equipment, such as those labeled as Energy Star. When daylight is not available, LED light fixtures provide artificial lighting with minimal energy use. Outdoor lighting would be minimal and meet dark sky initiatives.





#### 4. MAXIMIZE PERCENTAGE OF ENERGY FROM RENEWABLE SOURCES

After the previous steps have been followed, the design intent should expand to maximize the percentage of remaining energy required that would come from on-site renewable energy, such as solar PV. For the Courtney Hotel renovation, a 50 KW PV array is proposed in the form of parking shelters on site roofed with solar panels. The energy produced will supply the power for on-site electric vehicle charging stations as well as offsetting the building's energy usage.

*Note: it is critical that these four steps be followed in order. This is the key to optimizing the system. When properly executed, the integrated design process yields upfront costs for the overall building that are the same or even lower than conventional construction, even though some individual components have higher costs. For example, the up-front cost of insulating the building envelope and adding thermal mass with Phase Change Material is offset by downsizing mechanical system components since heating and cooling loads may be significantly reduced. Computational energy modeling would be performed early in the design phases to ensure that the performance goals are being met.*



#### STRATEGIES FOR WATER EFFICIENCY

##### 1. MINIMIZE WATER DEMAND

**a) Efficient fixtures:** Ultra-low flush (ULF) toilets (0.656 gpf), Energy Star®, and WaterSense® labeled water efficient equipment minimize water use through fixture efficiency.

**b) Water conscious landscaping:** Domestic landscape irrigation is a significant contributor to water consumption. By selecting native and drought-resistant plant species, implementing efficient irrigation systems, considering thoughtful plant grouping and placement, and incorporating alternative ground cover, water-conscious landscaping can effectively reduce water consumption. Additionally, This approach decreases maintenance needs, contributes to biodiversity by providing natural habitat, and creates a more engaging and beautiful environment



#### STRATEGIES FOR SUSTAINABLE MATERIALS

**a) Source local materials:** Using locally manufactured materials reduces the carbon associated with transportation and supports the local economy.

**b) Avoid toxic materials:** Many common building materials contain chemicals that off-gas or release fumes that can negatively impact indoor air quality. Additionally, some common building materials have manufacturing processes that are particularly damaging to the environment or the health of workers and surrounding communities. Which include asbestos, lead, CFCs, PVC, urea formaldehyde binders, and halogenated flame retardants.

**c) Maximize use of “green materials”,** which include salvaged, recycled-content, Forest Stewardship Council-certified wood, and rapidly-renewable materials.





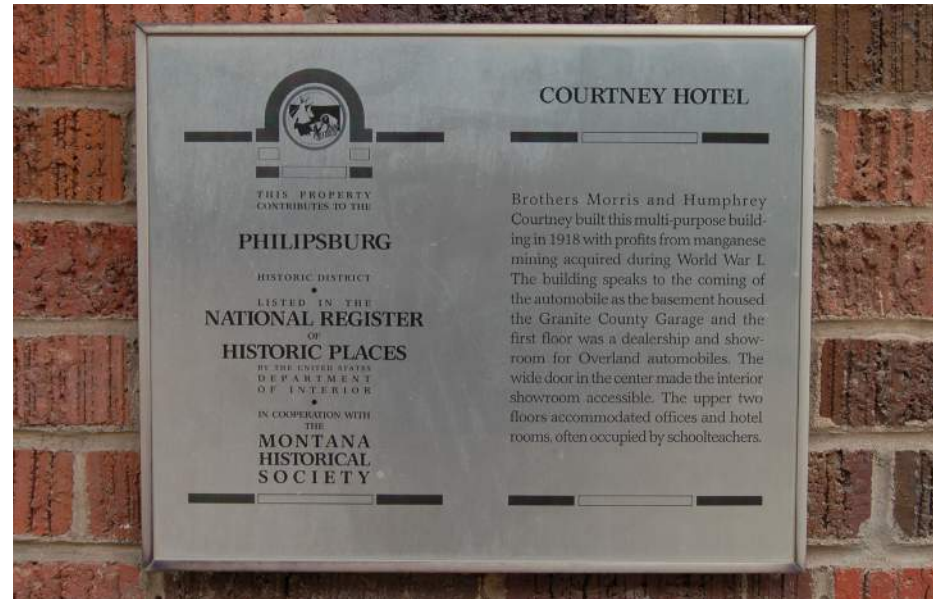
## CONCLUSIONS & NEXT STEPS

High Plains Architects believes the renovation of the existing Courtney Hotel to be an important opportunity for the Granite County Museum and Cultural Center, as well as the community of Philipsburg. The findings from this report show viable potential to cost-effectively provide quality workforce housing, community space resources, and expand museum exposure.

The robust construction of concrete and brick provides a long-lasting building shell that appears to be in good condition and will likely function well for many more years. The primary column and beam structure of the basement and main level works well for museum exhibits and the community space. The historic hotel rooms of the second and third level lend themselves well to being converted into apartment housing with a roof deck accessed from the second level.

Recommended next steps include sharing this feasibility study with the community to gain further support for this project and pursuing further design studies of the museum exhibits, archives and storage needs to maximize usability, accessibility, and quality space for the museum. A hazardous materials assessment will help to determine abatement needs for asbestos, lead, or other findings that could impact renovation techniques, timeline, and cost. A site survey is recommended to determine existing site grade, utilities, drainage, and back lot accessibility. A geotech report is recommended if ground source heat is pursued with new mechanical equipment.

Once initial funding is in place, full architectural and consultant plans can be developed along with the historic tax credit application. The National Register of Historic Places status will allow for building code flexibility and potentially open up additional funding sources.



Courtney Hotel National Register of Historic Places Plaque



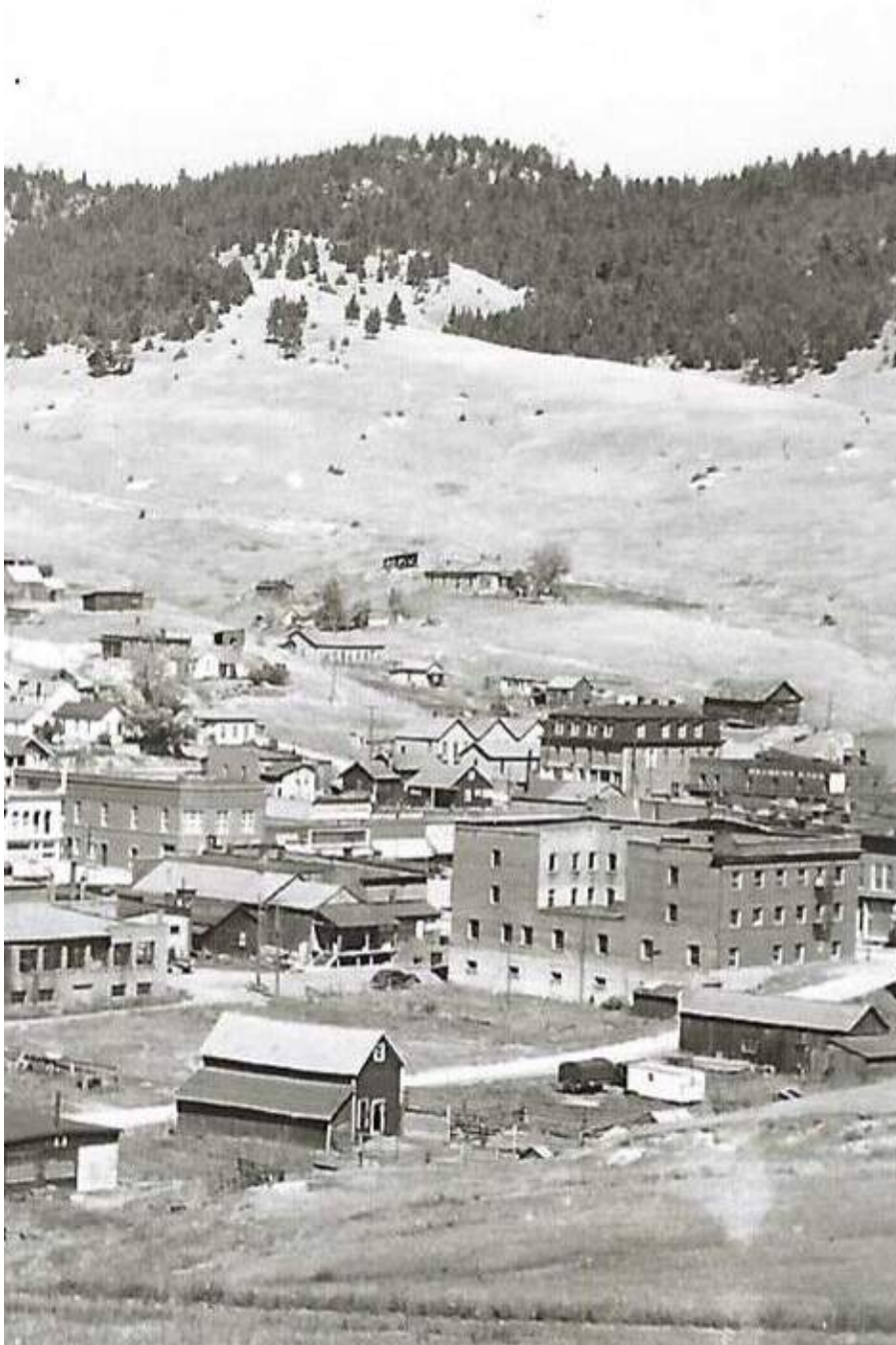
Town of Philipsburg, MT, 1920s - 1930s

## APPENDICES

### A. ZONING & CODE ANALYSIS

### B. FINANCIAL ANALYSIS

- AREA SUMMARY
- PRELIMINARY PROBABLE CONSTRUCTION COSTS
- PROJECTED INCOME WORKSHEET
- PRELIMINARY REMODEL COSTS
- TAX CREDITS & GRANTS
- SOURCES OF CASH
- INCOME & EXPENSES
- 10-YEAR-PLUS INCOME
- PRELIMINARY PROJECT BUDGET







## I. Zoning (City of Philipsburg Ordinance)

1. ZONING DISTRICT: No Zoning in Philipsburg, but is within a Historic District and city ordinances.
2. CURRENT & PROPOSED USE:

	Current	Allowed	Proposed
<b>3<sup>rd</sup> Floor - 4,847 sf</b>	Vacant rooms	unrestricted	Residential (R-2)
<b>2<sup>nd</sup> Floor – 4,847 sf</b>	Vacant rooms	unrestricted	Residential (R-2)
<b>1<sup>st</sup> Floor – 5,677 sf</b>	Museum	unrestricted	Commercial (Museum)
<b>Basement- 5,667 sf</b>	Museum	unrestricted	Commercial (Museum)

3. SPECIAL REVIEW REQUIRED: Not Applicable
4. SETBACKS: N/A (Existing Building)
5. HEIGHT: N/A (Existing Building)
6. LANDSCAPING: No requirements
7. PARKING REQUIREMENTS: Ordinance 6-4-2
  - a. *In all parts of the congested district vehicles must be parked at an angle of forty five degrees (45°) with the curb; excepting that on Sansome Street, between Broadway Street and Granite Street all vehicles are required to park parallel with the curb with both wheels on the right side of the vehicle as close to the curb as possible. In all parts of the town outside of the "congested district", vehicles must be parked either at an angle of forty five degrees (45°) or parallel to the curb, but not otherwise.*

*In parking vehicles parallel with the curb, the following rule shall be observed: In leaving parallel parking spaces vehicles must, in all cases, head out into the line of traffic and shall not in any case back out of such parking space. (Ord. 189,9-8-1936)*

LOT COVERAGE: N/A – Existing Building

## II. Existing Building History

Originally built in 1918, the building's basement was a garage, and first floor was a car dealership show room and offices. The second and third floor were for hotel

and boarding rooms. At one point there was a restaurant called the Pintler Room and in the 80's it was a hostel.

Currently, the first floor and basement is being used as a Museum, Group A-3 occupancy. The second and third floors have been vacant since the 1980s..

## III. Existing Building Code (International Existing Building Code–2021, plus applicable sections of 2021 IBC)

1. PROVISIONS FOR ALL COMPLIANCE METHODS (Chapter 3):
  - a. ALTERATION (301.3): The alteration, addition or change of occupancy of all existing buildings shall comply with one of the methods listed in Section 301.3.1, 301.3.2 or 301.3.3 as selected by the applicant. Sections 301.3.1 through 301.3.3 shall not be applied in combination with each other.
  - b. ACCESSIBILITY FOR EXISTING BUILDINGS (306.1): The provisions of Sections 306.1 through 306.7.16 apply to maintenance and repair, change of occupancy, additions, and alterations to existing buildings, including those identified as historic buildings.
  - c. ALTERATIONS (306.7): A facility that is altered shall comply with the applicable provisions in Chapter 11 of the International Building Code, ICC A117.1 and the provisions of Sections 306.7.1 through 306.7.16, unless technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent technically feasible.
  - d. ACCESSIBLE MEANS OF EGRESS (306.7.2): Accessible means of egress required by Chapter 10 of the International Building Code are not required to be added in existing facilities.
  - e. ENTRANCES (306.7.5): Where an alteration includes alterations to an entrance that is not accessible, and the facility has an accessible entrance, the altered entrance is not required to be accessible unless required by Section 306.7.1. Signs complying with Section 1112 of the International Building Code shall be provided.
  - f. STAIRWAYS IN EXISTING BUILDINGS (306.7.9): Where a stairway is added where none existed previously and major structural modifications are necessary for installation, an accessible route complying with Section 1104.4 of the International Building Code is required between levels served by such stairway.

- g. HISTORIC STRUCTURES (306.7.16): Where compliance with the requirements for accessible routes, entrances, or toilet rooms would threaten or destroy the historic significance of the historic structure, as determined by the authority having jurisdiction, the alternative requirements of Sections 306.7.16.1 through 306.7.16.5 for that element shall be permitted.

Exceptions:

- 1. Accessible means of egress required by Chapter 10 of the International Building Code are not required to be provided in historic structures.
- 2. The altered element or space is not required to be on an accessible route, unless required by Sections 306.7.16.1 or 306.7.16.2.

- h. SITE ARRIVAL POINTS (306.7.16.1): Not fewer than one exterior accessible route, including curb ramps from a site arrival point to an accessible entrance, shall be provided and shall not be less than 36 inches minimum in width.

## 2. PRESCRIPTIVE COMPLIANCE METHOD, Chapter 5:

- a. SCOPE (501.1): The provisions of this chapter shall control the alteration, addition and change of occupancy of existing buildings and structures, including historic buildings and structures as referenced in Section 301.3.1.
- b. COMPLIANCE WITH OTHER METHODS (501.1.1): Alterations, additions and changes of occupancy to existing buildings and structures shall comply with the provisions of this chapter or with one of the methods provided in Section 301.3.
- c. FIRE-RESISTANCE RATINGS (501.2): Where approved by the code official, in buildings where an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the International Building Code has been added, and the building is now sprinklered throughout, the required fire-resistance ratings of building elements and materials shall be permitted to meet the requirements of the current building code. The building is required to meet the other applicable requirements of the International Building Code.

Plans, investigation and evaluation reports, and other data shall be submitted indicating which building elements and materials the applicant is requesting the code official to review and approve for determination of applying the current building code fire-resistance ratings. Any special construction features, including fire-resistance-rated assemblies and smoke-resistive assemblies, conditions of occupancy, means of egress conditions, fire code deficiencies, approved modifications or approved alternative materials, design and methods of construction, and equipment applying to the building that impact required fire-resistance ratings shall be identified in the evaluation reports submitted.

- d. ADDITIONS Section 502

- e. GENERAL (502.1): Additions to any building or structure shall comply with the requirements of the International Building Code for new construction. Alterations to the existing building or structure shall be made to ensure that the existing building or structure together with the addition are not less complying with the provisions of the International Building Code than the existing building or structure was prior to the addition. An existing building together with its additions shall comply with the height and area provisions of Chapter 5 of the International Building Code.

- f. GENERAL (503.1) Alterations to any building or structure shall comply with the requirements of the International Building Code for new construction. Alterations shall be such that the existing building or structure is not less complying with the provisions of the International Building Code that the existing building or structure was prior to the alteration.

- g. STAIRWAYS (506.3) An existing stairway shall not be required to comply with the requirements of Section 1011 of the International Building Code where the existing space and construction does not allow a reduction in pitch or slope.

- h. EXISTING EMERGENCY ESCAPE AND RESCUE OPENINGS (506.4) Where a change of occupancy would require an emergency escape and rescue opening in accordance with Section 1031.1 of the International Building Code, operable windows serving as the emergency escape and rescue opening shall comply with the following

An existing operable window shall provide a minimum net clear opening of 4 square feet (0.38 m<sup>2</sup>) with a minimum net clear opening height of 22 inches (559 mm) and a minimum net clear opening width of 20 inches (508 mm).

A replacement window where such window complies with both of the following:

- 1. 2.1. The replacement window meets the size requirements in Item 1.
- 2. 2.2. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.

- i. HISTORIC BUILDINGS (Section 507)

- j. HISTORIC BUILDINGS (507.1): The provisions of this code that require improvements relative to a building's existing condition or, in the case of repairs, that require improvements relative to a building's



predamage condition, shall not be mandatory for historic buildings unless specifically required by this section.

- k. LIFE SAFETY HAZARDS (507.2): The provisions of this code shall apply to historic buildings judged by the code official to constitute a distinct life safety hazard.
- l. [BS] FLOOD HAZARD AREAS (507.3): Within flood hazard areas established in accordance with Section 1612.3 of the International Building Code, or Section R322 of the International Residential Code, as applicable, where the work proposed constitutes substantial improvement, the building shall be brought into compliance with Section 1612 of the International Building Code, or Section R322 of the International Residential Code, as applicable.

Exception:

1. Historic buildings meeting any of the following criteria need not be brought into compliance:
  2. Listed or preliminarily determined to be eligible for listing in the National Register of Historic Places.
  3. Determined by the Secretary of the US Department of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined to qualify as an historic district.
  4. Designated as historic under a state or local historic preservation program that is approved by the Department of Interior.

- m. [BS] STRUCTURAL (507.4): Historic buildings shall comply with the applicable structural provisions in this chapter.

Exceptions:

1. The code official shall be authorized to accept existing floors and existing live loads and to approve operational controls that limit the live load on any floor.
2. Repair of substantial structural damage is not required to comply with Sections 405.2.3, and 405.2.4. Substantial structural damage shall be repaired in accordance with Section 405.2.1.

#### IV. Building Code (International Building Code–2021)

1. OCCUPANCY GROUPS (Chapter 3):

	Existing Occupancies	Proposed Occupancies
<b>Basement</b>	A-3 (Museum)	A-3 (Museum)
<b>First Floor</b>	A-3 (Museum, Community Hall)	A-3 (Museum, Community Hall)
<b>Second Floor</b>	R-2 (Unoccupied Apartments)	R-2 (Apartments)
<b>Third Floor</b>	R-2 (Unoccupied Apartments)	R-2 (Apartments)

2. ALLOWABLE HEIGHT, NUMBER OF STORIES, AND AREA – TYPE III-B (TABLES 504.3, 504.4, 506.2):  
Existing Building: 5,677 SF per floor, 3 stories (plus basement); approximately 40 feet in height

Story	Occupancy	Allowable Area per Story	Provided Area	Allow. Height	Allow. Stories
		<b>Table 506.2</b>		<b>Table 504.3</b>	<b>Table 504.4</b>
<b>Basement</b>	<b>A-3</b>	28,500 sf	5,677 sf	75	3
<b>First Floor</b>	<b>A-3</b>	28,500 sf	5,677 sf	75	3
<b>Second Floor</b>	<b>R-2</b>	48,000 sf	4,846 sf	75	5
<b>Third Floor</b>	<b>R-2</b>	48,000 sf	4,845 sf	75	5

3. MIXED-OCCUPANCY, MULTISTORY BUILDINGS (506.2.2): The allowable area of each story of a mixed-occupancy building shall be determined in accordance with the applicable provisions of Section 508.3.2 for nonseparated occupancies and Section 508.4.2 for separated occupancies.  
For buildings more than three stories above grade plane, the total building area shall be such that the aggregate sum of the ratios of the actual area of each story divided by the allowable area of such stories, determined in accordance with Equation 5-3, based on the applicable provisions of Section 508.1, shall not exceed three. *Provided: The building is three stories, so ratios are not required. Each story complies with Section 508.1.*
4. FIRE RESISTIVE REQUIREMENTS for Type III-B (Tables 601 & 705.5):

b. Structural Frame –	Required: 0 Provided: 2 at basement & 1st
c. Bearing Walls, Exterior	Required: 2 Provided: 2
d. Bearing Walls, Interior –	Required: 0 Provided: 0

e. Non-bearing Walls, Exterior	Required: 0
	Provided: 0
f. Non-bearing Partitions –	Required: 0
	Provided: 0
g. Floor Construction -	Required: 0
	Provided: 0
h. Roof Construction –	Required: 0
	Provided: 0

5. EXTERIOR WALLS – PROJECTIONS (705.2.2): Projections from walls of Type III or Type V construction shall be of any approved material.  
*Provided: Existing canvas awning on Sansome Street.*
6. FIRE BARRIERS – INTERIOR EXIT STAIRWAY CONSTRUCTION (707.3.2): The fire-resistance rating of the fire barrier separating building areas from an interior exit stairway shall comply with Section 1023.1.
7. FIRE BARRIERS – CONTINUITY (707.5): Fire barriers shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab, or deck above and shall be securely attached thereto. Such fire barriers shall be continuous through concealed space, such as the space above a suspended ceiling. Joints and voids at intersections shall comply with Sections 707.8 and 707.9.
8. FIRE PARTITIONS – FIRE RESISTANCE RATING (708.3): Fire partitions shall have a fire-resistance rating of not less than one hour.
9. FIRE PARTITIONS – CONTINUITY (708.4): Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below and be securely attached to one of the following: 1) The underside of the floor or roof sheathing, deck, or slab above; or 2) The underside of the floor/ceiling or roof/ceiling assembly having a fire -resistance rating that is not less than the fire-resistance rating of the fire partition.
10. FIREBLOCKS AND DRAFTSTOPPING IN COMBUSTIBLE CONST. (708.4.2): In combustible construction where fire partitions do not extend to the underside of the floor or roof sheathing, deck, or slab above, the space above and along the line of the fire partition shall be provided with one of the following:
  1. Fireblocking up to the underside of the floor or roof sheathing, deck, or slab above using materials complying with Section 718.2.1.
  2. Draftstopping up to the underside of the floor or roof sheathing, deck, or slab above using materials complying with Section 718.3.1 for floor or Section 718.4.1 for attics.  
*Provided: Existing partition walls extend only to bottom of joists, so draftstopping is provided between joists above fire partitions.*
11. SHAFT FIRE-RESISTANCE RATING (713.4): Shaft enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more, and not less than 1 hour where connecting less than four

stories. The number of stories connected by the shaft enclosure shall include any basements but not any mezzanines. Shaft enclosures shall have a fire-resistance rating not less than the floor assembly penetrated but need not exceed 2 hours. Shaft enclosures shall meet the requirements of Section 703.2.1.1. *Provided: Elevator and stair shafts required to be 2-hour rated. ERV shafts extending to the basement need to be 2-hour rated, but those connecting few floors may be 1-hour rated.*

12. SHAFT ENCLOSURE AT BOTTOM (713.11): Shafts that do not extend to the bottom of the building shall comply with one of the following:
  1. Be enclosed at the lowest level with construction of the same fire-resistance rating as the lowest floor through which the shaft passes, but not less than the rating required for the shaft enclosure.
  2. Terminate in a room having a use related to the purpose of the shaft. The room shall be separated from the remainder of the building by fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. The fire-resistance rating and opening protectives shall be not less than the protection required for the shaft enclosure.
13. SHAFT ENCLOSURE AT TOP (713.12): The top of the shaft enclosures shall comply with one of the following:
  1. Extend to the underside of the roof sheathing, deck, or slab of the building, and the roof assembly shall comply with the requirements for the type of construction as specified in Table 601.
  2. Terminate below the roof assembly and be enclosed at the top with construction of the same fire-resistance rating as the topmost floor penetrated by the shaft, but not less than the fire-resistance rating required for the shaft enclosure.
  3. Extend past the roof assembly and comply with the requirements of Section 1511.
14. PENETRATIONS OF FIRE-RESISTANCE-RATED WALLS (714.4.1): Through penetrations of fire-resistance-rated walls, fire barriers, smoke barrier walls, and fire partitions shall comply with Sections 714.4.1.1 or 714.4.1.2. Exception: Where penetrating items are steel, ferrous or copper pipes, tubes, or conduits, the annular space between the penetrating item and the fire-resistance-rated wall is permitted to be protected by either of the following measures:
  1. In concrete or masonry walls where the penetrating item is a maximum 6-inch nominal diameter and the area of the opening through the wall does not exceed 144 square inches, concrete, grout, or mortar is permitted where installed the full thickness of the wall or the thickness to maintain the fire-resistance-rating.
  2. The material used to fill the annular space shall [meet ASTM E119 or U263].  
*Provided: All piping that penetrates fire rated walls shall be cast iron, copper, or steel conduit.*
15. FIRE DOOR PROTECTION RATING (TABLE 716.1(2)): *Provided: Doors located on 1-hour-rated corridor fire partitions shall have a 20 min. rating. Doors located on 2-hour-rated stair shaft enclosures shall have a*



90 min. rating. Doors located on 2-hour-rated corridor walls on the first floor have a 90 min. rating.

16. FIRE WINDOW PROTECTION RATING (TABLE 716.1(3)): *Provided: Glazing in 2-hour rated exit passageway shall have glazing assemblies tested to ASTM E119 or UL 263. Fire-rated glazing marking is W-120 for a 2-hour rating.*
17. FIREBLOCKING (718.2): In combustible construction, fireblocking shall be installed to cut off concealed draft openings (both vertical and horizontal) and shall form an effective barrier between floors, between a top story and a roof or attic space. Fireblocking shall be installed in the locations specified in Sections 718.2.2 through 718.2.7. *Provided: Walls shall have 2X blocking as required so no cavity is 10 ft tall or greater. Fireblocking shall be installed between joists above fire partitions.*
18. FIREBLOCKING AT STAIRWAYS (718.2.4): Fireblocking shall be provided in concealed spaces between stair stringers at the top and bottom of the run. Enclosed spaces under stairways shall comply with Section 1011.7.3.
19. DRAFTSTOPPING IN FLOORS (718.3): Draftstopping shall be installed to subdivide floor/ceiling assemblies where required by Section 708.4.2. In other than Group R occupancies, draftstopping shall be installed to subdivide combustible floor/ceiling assemblies so that horizontal floor areas do not exceed 1,000 square feet (93 m2).
20. DRAFTSTOPPING IN ATTICS (718.4): Draftstopping shall be installed to subdivide attic spaces where required by Section 708.4.2. In other than Group R, draftstopping shall be installed to subdivide combustible attic spaces and combustible concealed roof spaces such that any horizontal area does not exceed 3,000 square feet (279 m2). Ventilation of concealed roof spaces shall be maintained in accordance with Section 1202.2.1.
21. INTERIOR WALL AND CEILING FINISH MATERIALS TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723 (803.1.2): Interior wall and ceiling finish materials shall be classified in accordance with ASTM E84 or UL 723. Such interior finish materials shall be grouped in the following classes in accordance with their flame spread and smoke-developed indices.

Class A = Flame spread index 0—25; smoke-developed index 0—450.  
 Class B = Flame spread index 26—75; smoke-developed index 0—450.  
 Class C = Flame spread index 76—200; smoke-developed index 0—450.  
 Exception: Materials tested in accordance with Section 803.1.1 and as indicated in Sections 803.1.3 through 803.13

## 22. INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY (TABLE 803.13):

GROUP	NONSPRINKLERED		
	Interior exit stairways and exit passageways	Corridors and exit access stairway enclosure	Rooms and enclosed spaces
R-2	C	C	C

23. SPRINKLERS IN STORIES WITHOUT OPENINGS (903.2.11.1.3): An automatic sprinkler system shall be installed throughout all stories, including basements, of all buildings where the floor area exceeds 1,500 square feet (139.4 m2) and where the story does not comply with the following criteria for exterior wall openings:
  1. Openings below grade that lead directly to ground level by an exterior stairway complying with Section 1011 or an outside ramp complying with Section 1012. Openings shall be located in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on not fewer than one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm).
  2. Openings entirely above the adjoining ground level totaling not less than 20 square feet (1.86 m2) in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on not fewer than one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm). The height of the bottom of the clear opening shall not exceed 44 inches (1118 mm) measured from the floor.
24. STANDPIPES – HEIGHT (905.3.1): Class III standpipe systems shall be installed throughout buildings where any of the following conditions exist:
  1. Four or more stories are above or below grade plane.
  2. The floor level of the highest story is located more than 30 feet above the lowest level of fire department vehicle access.
  3. The floor level of the lowest story is located more than 30 feet below the highest level of fire department vehicle access.
25. PORTABLE FIRE EXTINGUISHER SIZE AND DISTRIBUTION (Table 906.3(1)): Portable fire extinguishers shall be installed in Groups B and S-1 are regarded as ordinary hazard and shall have min. 2-A-rated extinguishers for a max. of 1,500 SF per unit of A, a maximum of 11,250 sq. ft. per extinguisher, and maximum travel distance of 75 feet and shall be provided in conspicuous, unobstructed locations. *Provided: Two extinguishers are provided at each floor, except the basement, where four are provided.*

26. FIRE ALARM AND DETECTION SYSTEMS—WHERE REQUIRED (907.2): An approved fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with Section 907.5 unless other requirements are provided by another section of this code.

Not fewer than one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or waterflow detection devices. Where other sections of this code allow elimination of fire alarm boxes due to sprinklers, a single fire alarm box shall be installed.

27. FIRE ALARM AND DETECTION SYSTEMS – GROUP R-2 (907.2.11.2): Single or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and I-1 regardless of occupant load at all of the following locations:
1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
  2. In each room used for the sleeping purposes
  3. In each story within a dwelling unit, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
28. FIRE SAFETY FUNCTIONS (907.3): Automatic fire detectors utilized for the purpose of performing fire safety functions shall be connected to the building's fire alarm control unit where a fire alarm system is required by Section 907.2. Detectors shall, upon actuation, perform the intended function and activate the alarm notification appliances or activate a visible and audible supervisory signal at a constantly attended location. In buildings not equipped with a fire alarm system, the automatic fire detector shall be powered by normal electrical service and, upon actuation, perform the intended function. The detectors shall be located in accordance with NFPA 72.
29. MANUAL FIRE ALARM BOX LOCATIONS (907.4.2.1): Manual fire alarm boxes shall be located not more than 5 feet from the entrance to each exit. In buildings without an automatic fire sprinkler system, additional manual fire alarm boxes shall be located so that the distance of travel to the nearest box does not exceed 200 feet. *Provided: Manual alarms are located adjacent to each exterior door and entrance to an interior exit stairway.*
30. OCCUPANT LOAD CALCULATIONS (Table 1004.5): (Per the Ch. 2 definition, the building area used is within the exterior walls.) Note: FLOOR AREA, NET=The actual occupied area not including unoccupied accessory areas such as corridors, stairways, toilet rooms, mechanical rooms, and closets.

FLOOR	OCCUPANCY CLASSIFICATION	FUNCTION OF SPACE	AREA (SF)	LOAD FACTOR	OCCUPANT LOAD
BASEMENT	A-3	Museum	4,911 sf net	30 net	163
1st FLOOR	A-3	Museum, Community Hall	5,064 sf net	30 net	169
2 <sup>nd</sup> FLOOR	R-2	Business areas	4,846 sf gross	200 gross	24
3 <sup>rd</sup> FLOOR	R-2	Business areas	4,846 sf gross	200 gross	24
TOTAL					380

31. MEANS OF EGRESS SIZING (1005.3.1 AND 1005.3.2):
- a. Stairways: 0.3" x 50 =15", minimum 48" per 1009.6.3
  - b. Other egress components: 0.2" x 50 =10", min. 44" per 1020.3 except where fewer than 50 occupants, when min. 36";
32. SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY (TABLE 1006.2.1): Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1

Occupancy	Max. Occupant Load of Space	Max. Common Path of Egress in sprinklered building
A-3	49	75
R-2	20	125

33. ELECTRICAL ROOMS (1006.2.2.4): The number and location of exit or exit access doorways shall be provided for electrical rooms in accordance with Section 110.26 of NFPA 70 for electrical equipment rated 1,000 volts or less, and Section 110.33 of NFPA 70 for electrical equipment rated over 1,000 volts. Panic hardware shall be provided where required in accordance with Section 1010.2.9.2.
34. TWO EXITS OR EXIT ACCESS DOORWAYS (1007.1.1): Where two exits, exit access doorways, exit access stairways or ramps, or any combination thereof, are required from any portion of the exit access, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between them. Interlocking or scissor stairways shall be counted as one exit stairway. Exception 2: Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance shall not be less than one-third of the length of the maximum overall diagonal dimension of the area served.
35. MEANS OF EGRESS ILLUMINATION (1008.2.1): The means of egress illumination level shall be not less than 1 footcandle (11 lux) at the walking surface. Along exit access stairways, exit stairways and at their



required landings, the illumination level shall not be less than 10 footcandles (108 lux) at the walking surface when the stairway is in use.

36. ACCESSIBLE MEANS OF EGRESS (1009.1) Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress is required by Section 1006.2 or 1006.3 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.  
*Provided: Per IEBC 306.7.16, Accessible Means of Egress are not required to be provided in historic structures.*
37. ACCESSIBLE EGRESS – CONTINUITY AND COMPONENTS (1009.2): Each required accessible means of egress shall be continuous to a public way and shall consist of one or more of the following components:
1. Accessible routes complying with Section 1104.
  2. Interior exit stairways complying with Sections 1009.3 and 1023.
  3. Exit access stairways complying with Sections 1009.3 and 1019.3 or 1019.4.
  4. Exterior exit stairways complying with Sections 1009.3 and 1027 and serving levels other than the level of exit discharge.
  5. Elevators complying with Section 1009.4.
  6. Platform lifts complying with Section 1009.5.
  7. Horizontal exits complying with Section 1026.
  8. Ramps complying with Section 1012.
  9. Areas of refuge complying with Section 1009.6.
38. STAIRWAY WIDTH (1009.3.2): Stairways shall have a clear width of 48 inches minimum between handrails.
39. DOOR SWING (1010.1.2.1): Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more persons.
40. LANDINGS AT DOORS (1010.1.5): Landings shall have a width not less than the stairway. Doors in the fully open position shall not reduce a required dimension by more than 7 inches. Landings shall have a length measured in the direction of travel of not less than 44 inches.
41. STAIRWAYS – WIDTH AND CAPACITY (1011.2): The required capacity of stairways shall be determined as specified in Section 1005.1, but the minimum width shall be not less than 44 inches. Exception 1: Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches (914 mm).
42. RISER HEIGHT AND TREAD DEPTH (1011.5.2): For new stairs, riser heights shall be 7 inches maximum and 4 inches minimum. Rectangular tread depths shall be 11 inches minimum.
43. STAIRWAY LANDINGS (1011.6): There shall be a floor or landing at the top and bottom of each stairway. The width of landings shall not be less than the width of stairways they serve. Every landing shall have a minimum width measured perpendicular to the direction of travel equal to the width of the stairway. Where the stairway has a straight run, the depth need not exceed 48 inches. Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches into a landing. Where wheelchair spaces are required on the stairway landing in accordance with Section 1009.6.3, the wheelchair space shall not be located in the required width of the landing and doors shall not swing over the wheelchair spaces.
44. ENCLOSURES UNDER INTERIOR STAIRWAYS (1011.7.3): The walls and soffits within enclosed usable spaces under enclosed and unenclosed stairways shall be protected by 1-hour fire-resistance-rated construction or the fire-resistance rating of the stairway enclosure, whichever is greater. Access to the enclosed space shall not be directly from within the stairway enclosure.
45. EXIT ACCESS TRAVEL DISTANCE (Table 1017.2): In Groups A and R-2 in a sprinklered building, the maximum exit access travel distance is 250 ft.
46. CORRIDOR CONSTRUCTION (Table 1020.2): Corridors serving more than 30 occupants in a Group A occupancy in a sprinklered building shall have a zero-hour fire-resistance rating. Corridors serving more than 10 occupants in a Group R occupancy in a sprinklered building shall have a half-hour fire-resistance rating.
47. CORRIDOR WIDTH AND CAPACITY (TABLE 1020.3): Corridor widths shall be a minimum of 44 inches wide unless they serve an occupant load less than 50, in which case they shall be a minimum of 36 inches wide.
48. DEAD ENDS (1020.5): Where more than one exit or exit access doorway is required, the exit access shall be arranged such that there are no dead ends occupancies that are more than 20 feet in length.
49. INTERIOR EXIT STAIR CONSTRUCTION (1023.2): Enclosures for interior exit stairways shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. Interior exit stairway enclosures shall have a fire-resistance-rating of not less than 2 hours where connecting four stories or more.
50. UNVENTED ATTICS (1202.3): Unvented attics shall be permitted where all of the following conditions are met:
1. The unvented attic space is completely within the building thermal envelope.
  2. No interior Class I vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly.
  3. Where wood shingles or shakes are used [DOES NOT APPLY]
  4. In Climate Zone 6, any air-impermeable insulation shall be a Class II vapor retarder or shall have a Class II vapor retarder coating or covering in direct contact with the underside of the insulation.
  5. Insulation shall comply with either Item 5.1 or 5.2, and additionally with Item 5.3.  
5.1. Item 5.1.1, 5.1.2, 5.1.3, or 5.1.4 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing.

5.1.1. Where only air-impermeable insulation is provided, it shall be applied in direct contact with underside of the structural roof sheathing

5.1.2. Where air-permeable insulation is provided inside the building thermal envelope, it shall be installed in accordance with Item 5.1.1. In addition to the air-permeable insulation installed directly below the structural sheathing, rigid board, or sheet insulation shall be installed directly above the structural roof sheathing in accordance with the R-values in Table 1202.3 for condensation control.

5.1.3. Where both air-impermeable and air-permeable insulation are provided, the air-impermeable insulation shall be applied in direct contract with the underside of the structural roof sheathing in accordance with Item 5.1.1 and shall be in accordance with the R-values in Table 1202.3 for condensation control. The air-permeable insulation shall be installed directly under the air-impermeable insulation.

5.1.4. Alternatively, sufficient rigid board or sheet insulation shall be installed directly above the structural roof sheathing to maintain the monthly average temperature of the underside of the structural roof sheathing above 45 de. F. For calculation purposes, an interior air temperature of 68 de. F. is assumed and the exterior air temperature is assumed to be the monthly average outside air temperature of the three coldest months.

5.3. The air shall be supplied from ductwork providing supply air to the occupiable space when the conditioning system is operating. Alternatively, the air shall be supplied by a supply fan when the conditioning system is operating. *[N/A – applies to 5.2]*

#### 51. PLUMBING REQUIREMENTS (Table 2902.1, ARM 24.301.351):

OCCUPANCY	OCC. LOAD	WATER CLOSETS (and urinals, which can make up to 50% of male WC)				LAVATORIES			TUB OR SHOWER	DRINK FOUNTAIN	SERVICE SINK	KITCHEN SINK	CLOTHES WASHER
		Male Ratio	Male	Female Ratio	Female	Ratio	Male	Female					
A-3	332	1:125	1.3	1:65	2.5	1:200	.83	.83		1	1		
R-2	48	1 per Dwelling Unit				1 per Dwelling Unit			1 per Dwelling Unit			1 per Dwelling Unit	1 per 20 Dwelling Units
REQ'D													
PROV'D													

#### V. Accessibility Code (ICC A117.1-2017)

1. PARALLEL PARKING AT NARROW SIDEWALKS (502.9.1.2): An access aisle is not required where the width of the adjacent sidewalk or the available right-of-way is less than or equal to 14 feet. Where an access aisle is not provided, the parking spaces shall be located at the end of the block face.

#### VI. Accessibility Code (Architectural Barriers Act)

The following provisions differ from and supersede the ADA in this federally-funded project:

1. DINING SURFACES AND WORK SURFACES (F226.1): Where work surfaces are provided, at least 5 percent shall comply with 902.
2. LAVATORIES AND SINKS (606): A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches max. about the finish floor.
3. DINING SURFACES AND WORK SURFACES (902.2, 902.3): a clear floor space complying with 305 positioned for a forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided.
4. SALES AND SERVICE COUNTERS (904.4): A portion of the counter surface that is 36 inches long minimum and 36 inches high maximum.

#### VII. Energy Conservation Code (International Energy Conservation Code–2021)

1. APPLICATION (C401.2): Commercial buildings shall comply with one of the following:
  - a. The requirements of ASHRAE 90.1.
  - b. The requirements of C402, C403, C404, C405, C406, and C408.



Granite County Museum & Cultural Center

135 S. Sansome St., Philipsburg, MT 59858

A. AREA SUMMARY

MARCH 2024

HIGH PLAINS ARCHITECTS - 2720 Minnesota Ave, Billings, MT 59101

BASEMENT

Gross Area:	5,677	SF
Rentable Area:	-	SF
Unit Count:	1	Museum and mechanical

FIRST FLOOR

Gross Area:	5,677	SF
Rentable Area:	2,770	SF
Unit Count:	2	Museum/Gift Shop, Community Rm

SECOND FLOOR

Gross Area:	4,846	SF
Rentable Area:	3,558	
Unit Count:	10	Residential Rentals

THIRD FLOOR

Gross Area:	4,846	SF
Rentable Area:	3,610	SF
Unit Count:	7	Residential Rentals

ROOF

Gross Roof Area:	5,702	SF
Pedestal Roof Deck Area:	370	SF

TOTAL AREA

Gross Area:	21,046	SF
Without BSMT:	15,369	SF
Rentable Area:	9,938	SF
	47%	Efficiency Ratio

# Granite County Museum & Cultural Center

135 S. Sansome St., Philipsburg, MT 59858

## B. PRELIMINARY STATEMENT OF PROBABLE COSTS

MARCH 2024

HIGH PLAINS ARCHITECTS - 2720 Minnesota Ave, Billings, MT 59101

Costs calculated for a 3 story building w/ basement, approx imately 10'-0" story height, 21,046 square feet (including basement), using RSMeans 2023 Cost Data.

Costs calculated for a 3 story building w/ basement, approx imately 10'-0" story height, 21,046 square feet (including basement), using RSMeans 2023 Cost Data.			Unit	Count	Unit Cost	R.O.M.	Cost per S.F.	% of Sub-Total
A.DEMOLITION/EXISTING CONDITIONS								
	Selective Demo. - Doors	Demo/remove and re-use existing doors.	Each	50	\$ 147.00	\$ 7,350.00	\$ 0.48	8.1%
	Selective Demo. - Lath & Plaster	Demo damaged L&P from select walls, 2nd, 3rd floor	S.F. Wall	2520	\$ 7.50	\$ 18,900.00	\$ 1.23	
	Selective Demo. - Lath & Plaster Ceilings	Demo existing L&P from ceilings, 50% 2nd and 3rd floor	S.F. Ceiling	2907	\$ 8.65	\$ 25,145.55	\$ 1.64	
	Selective Demo. - Foor Assembly	Demo for new stair and lift, basement to 1st floor	S.F.	200	\$ 30.75	\$ 6,150.00	\$ 0.40	
	Selective Demo. - Carpet	Removal of existing carpet 1st, 2nd, 3rd, select locations	S.F.	5814	\$ 5.35	\$ 31,104.90	\$ 2.02	
	Selective Demo. - Flooring	Removal of existing laminate/vinyl/misc. flooring, 2nd and 3rd	S.F.	1449	\$ 8.00	\$ 11,592.00	\$ 0.75	
	Selective Demo. - windows	Removal of existing windows	Each	92	\$ 250.00	\$ 23,000.00	\$ 1.50	
	Selective Demo. - main level floor	Demo main floor for new stair and lift	S.F. Floor	200	\$ 20.00	\$ 4,000.00	\$ 0.26	
	Selective Demo. - Fire escape	Demo south fire escape	Each	1	\$ 2,000.00	\$ 2,000.00	\$ 0.13	
	Selective Demo - Mechanical	Remove existing abandoned boiler in basement	Each	1	\$ 4,000.00	\$ 4,000.00	\$ 0.26	
B. SUBSTRUCTURE								
1020	Special Foundations	new thickened slab under lift	C.Y.	8	\$ 1,545.00	\$ 12,360.00	\$ 0.80	1.1%
1020	Special Foundations	New spread footings under column point loads for exterior stair	Each	8	\$ 300.00	\$ 2,400.00	\$ 0.16	
1030	Slab on Ground	New 4" reinforced concrete -at new exterior stair (10'x18') and walkways	S.F. Slab	430	\$ 7.22	\$ 3,104.60	\$ 0.20	
2010	Basement Excavation	Site preparation for slab and trench foundation wall and footing	S.F. Ground	200	\$ 0.38	\$ 76.00	\$ 0.00	
2020	Basement Walls	N/A			\$ -	\$ -	\$ -	
C. SHELL								
B10 Super Structure								
1010	Floor Construction Reinforcement	Reinforce existing floor diaphragm	S.F. Floor	200	\$ 6.15	\$ 1,230.00	\$ 0.08	0.1%
1020	Roof Construction	N/A	S.F. Roof	0	\$ 13.02	\$ -	\$ -	
B20 Exterior Enclosure								
2010	Exterior Walls	Repoint brick as needed	S.F. Wall	300	\$ 6.00	\$ 1,800.00	\$ 0.12	18.4%
2020	Exterior Windows	UV protective coating on museum perimeter	Each	92	\$ 2,440.00	\$ 224,480.00	\$ 14.61	
2030	Exterior Doors	Steel door, hollow metal with frame	Each	5	\$ 4,488.00	\$ 22,440.00	\$ 1.46	
	Attic Insulation	cellulose insulation, R-49 min	S.F. Roof	6000	\$ 6.00	\$ 36,000.00	\$ 1.46	
	exterior wall insulation	2" EPS w/ embedded nail strip	S.F. Wall	10800	\$ 3.00	\$ 32,400.00	\$ 2.11	
B30 Roofing								
3010	Roof Coverings	New membrane roof if deemed necessary	S.F. Roof	5702	\$ 10.00	\$ 57,020.00	\$ 3.71	4.6%
3011	Roof Coverings	New roof deck on pedestals.	S.F. Roof	370	\$ 50.00	\$ 18,500.00	\$ 1.20	
3020	Roof Openings	N/A	-	0	\$ -	\$ -	\$ -	
D. INTERIORS								
1010	Partitions	Gypsum board on wood studs	S.F. Wall	3150	\$ 8.44	\$ 26,586.00	\$ 1.73	11.6%
1020	Interior Doors	Interior, single leaf doors, frames and hardware	Each	30	\$ 1,351.00	\$ 40,530.00	\$ 2.64	
1030	Fittings	Residential wall and base wood cabinets, laminate counters	S.F. Floor	285	\$ 6.00	\$ 1,710.00	\$ 0.11	
2010	Stair Construction	Wood stairs with wood rails	Flight	3	\$ 4,005.00	\$ 12,015.00	\$ 0.78	
3010	Wall Finishes	95% paint, 5% ceramic wall tile	S.F. Wall	3800	\$ 1.60	\$ 6,080.00	\$ 0.40	



3020	Floor Finishes	reuse or refinish existing	S.F. Floor	9692	\$ 5.28	\$ 51,173.76	\$ 3.33	
3030	Ceiling Finishes	Painted gypsum board ceiling on resilient channels	S.F. Floor	9692	\$ 5.43	\$ 52,627.56	\$ 3.42	
E. SERVICES								
D10 Conveying								
1010	Elevators and lifts	lift from basement to main level; includes hoistway.	Each	1	\$ 60,000.00	\$ 60,000.00	\$ 3.90	3.6%
D20 Plumbing								
2010	Plumbing Fixtures	Kitchen, bath, laundry and service fixtures, supply and drainage	Each	19	\$ 2,710.00	\$ 51,490.00	\$ 3.35	8.7%
2020	Domestic Water Distribution	Electric water heater	S.F. Floor	9692	\$ 8.24	\$ 79,862.08	\$ 5.20	
2030	Rain Water Drainage	Roof drains	S.F. Roof	5,702	\$ 2.22	\$ 12,658.44	\$ 0.82	
D30 HVAC								
3010	Energy Supply	heat pumps, baseboard backup	S.F. Floor	9692	\$ 9.80	\$ 94,981.60	\$ 21.00	34.9%
3020	Heat Generating Systems	N/A			\$ -	\$ -	\$ -	
3030	Cooling Generating Systems	HRV system	S.F. Floor	9692	\$ 12.97	\$ 125,705.24	\$ 16.50	
3050	Terminal & Package Units	N/A			\$ -	\$ -	\$ -	
3090	Other HVAC Sys. & Equipment	N/A			\$ -	\$ -	\$ -	
D40 Fire Protection								
4010	Sprinklers	Wet pipe sprinkler system, light hazard	S.F. Floor	21046	\$ 7.27	\$ 153,004.42	\$ 9.96	9.3%
4020	Standpipes	N/A	S.F. Floor	0	\$ 2.85	\$ -	\$ -	
D50 Electrical								
5010	Electrical Service/Distribution	800 ampere service, panel board and feeders	S.F. Floor	9692	\$ 4.50	\$ 43,614.00	\$ 2.84	18.9%
5020	Lighting & Branch Wiring	Incandescent fixtures, receptacles, switches, A.C. and misc. power	S.F. Floor	9692	\$ 10.00	\$ 96,920.00	\$ 6.31	
5030	Communications & Security	Addressable alarm system, emergency lighting, internet and phone wiring	S.F. Floor	9692	\$ 5.00	\$ 48,460.00	\$ 3.15	
5090	Other Electrical Systems	Solar PV Array, roof, 35KW system	Watt	35000	\$ 3.50	\$ 122,500.00	\$ 7.97	
F. EQUIPMENT & FURNISHINGS								
1010	Commercial Equipment	N/A	-	0	\$ -	\$ -	\$ -	1.0%
1090	Other Equipment	Residential appliances	Each	19	\$ 900.00	\$ 17,100.00	\$ 1.11	
G. SPECIAL CONSTRUCTION								
	N/A		-		\$ -	\$ -		
	N/A		-		\$ -	\$ -		
H. BUILDING SITEWORK								
	Finish grading	Parking and grading on west side of lot	SF Area	600	\$ 12.00	\$ 7,200.00		
Sub-Total:						\$ 1,649,271.15	\$ 107.31	100%
CONTRACTOR FEES								
General Requirements 10%, Overhead 9%, Profit 6%					25%	\$ 412,317.79	\$ 26.83	
No modifier used against national average:					100%	\$ -		
Escalation					5%	\$ 82,463.56	\$ 5.37	
Total Building Cost:						\$ 2,144,052.50	\$ 139.51	/SF

Granite County Museum & Cultural Center

135 S. Sansome St., Philipsburg, MT 59858

C. PROJECTED INCOME WORKSHEET

MARCH 2024

HIGH PLAINS ARCHITECTS - 2720 Minnesota Ave, Billings, MT 59101

BASEMENT - COMMERCIAL						
Space Name	Count	Rentable Area (SF)	Rent/SF/Mo.	Rent/SF/yr	Rent Income/mo.	Rent Income/yr.
Museum Exhibits and work room		-		\$15.00	\$0	\$0
Commercial Subtotal		-			\$0	\$0
Parking Stalls		0	\$0.00		\$0	\$0
Tenant Storage		0	\$0.00		\$0	\$0
Residential Subtotal		0			\$0	\$0
CIRCULATION		-		*		\$0
MECHANICAL		520		*		\$0
Common Subtotal		520				
Level Subtotal		520			\$0	\$0

FIRST FLOOR - COMMERCIAL						
Space Name		Rentable Area (SF)	Rent/SF /mo.	Rent/SF/yr	Rent Income/mo.	Rent Income/yr.
Museum		-		\$0.00	\$0	\$0
Community room		2,777		\$5.00	\$1,157	\$13,885
				\$0.00	\$0	\$0
				\$0.00	\$0	\$0
Commercial Subtotal		2,777			\$1,157	\$13,885
CIRCULATION		600		*		
RESTROOMS		415		*		
Common Subtotal						
Level Subtotal		2,777			\$1,157	\$13,885



# Granite County Museum & Cultural Center

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## C. PROJECTED INCOME WORKSHEET

MARCH 2024

HIGH PLAINS ARCHITECTS - 2720 Minnesota Ave, Billings, MT 59101

SECOND FLOOR - RESIDENTIAL APARTMENTS							
Space Name	BDRM	Rentable Area (SF)	Rent/SF /mo.	Rent/SF/yr	Rent Income/mo.	Rent Income/yr.	%AMI
201	1	370	\$2.97		\$1,100	\$13,200	75%
202	E	330	\$3.03		\$1,000	\$12,000	78%
203	1	525	\$2.19		\$1,150	\$13,800	78%
204	E	250	\$3.80		\$950	\$11,400	74%
205	E	300	\$3.17		\$950	\$11,400	74%
206	E	300	\$3.17		\$950	\$11,400	74%
207	1	300	\$3.67		\$1,100	\$13,200	75%
208	1	340	\$3.24		\$1,100	\$13,200	75%
209	E	300	\$3.33		\$1,000	\$12,000	78%
210	1	450	\$2.44		\$1,100	\$13,200	75%
<b>Residential Subtotal</b>		<b>3,465</b>			<b>\$10,400</b>	<b>\$124,800</b>	
CIRCULATION		1,228					
LAUNDRY/MECH		100					
<b>Common Subtotal</b>		<b>1,328</b>					
<b>Level Subtotal</b>		<b>4,793</b>			<b>\$10,400</b>	<b>\$124,800</b>	

# Granite County Museum & Cultural Center

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## C. PROJECTED INCOME WORKSHEET

MARCH 2024

HIGH PLAINS ARCHITECTS - 2720 Minnesota Ave, Billings, MT 59101

THIRD FLOOR - RESIDENTIAL APARTMENTS							
Space Name	BDRM	Rentable Area (SF)	Rent/SF /mo.	Rent/SF/yr	Rent Income/mo.	Rent Income/yr.	%AMI
301	1	450	\$2.56		\$1,150	\$13,800	78%
302	E	330	\$2.88		\$950	\$11,400	74%
303	1	525	\$2.10		\$1,100	\$13,200	75%
304	2	545	\$2.20		\$1,200	\$14,400	73%
305	2	570	\$2.19		\$1,250	\$15,000	76%
306	2	695	\$1.87		\$1,300	\$15,600	79%
307	1	450	\$2.44		\$1,100	\$13,200	75%
Residential Subtotal		3565	\$2.26		\$8,050	\$96,600	
CIRCULATION		1,236					
LAUNDRY/MECH		55					
Common Subtotal		1,291			\$0	\$0	
Level Subtotal		4,856			\$8,050	\$96,600	

POTENTIAL ANNUAL INCOME	12,946 SF	\$19,607	\$235,285
POTENTIAL ANNUAL INCOME - COMMERCIAL	2,777 SF		\$13,885
	Less Vacancy Rate Of	0%	\$0
	COMMERCIAL SUBTOTAL		\$13,885
POTENTIAL ANNUAL INCOME - RESIDENTIAL	7,030 SF		\$221,400
	Less Vacancy Rate Of	3%	-\$6,642
	RESIDENTIAL SUBTOTAL		\$214,758

GROSS ANNUAL INCOME	Less Vacancy	\$228,643
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# Granite County Museum & Cultural Center

135 S. Sansome St., Philipsburg, MT 59858

## FINANCIAL PRO FORMA ANALYSIS

MARCH 2024

HIGH PLAINS ARCHITECTS - 2720 Minnesota Ave, Billings, MT 59101

### 1. REMODEL COSTS

#### BUILDING PURCHASE

	Amount	Unit	\$/Unit	Subtotal	Notes
Granite County Museum & Cultural Center	1	EA	\$ 1	\$	1 they own the building
<b>Total Purchase Cost:</b>				<b>\$ 1</b>	

#### HARD COSTS

	Amount	Unit	\$/Unit	Subtotal	Notes
Construction	21,046	SF	\$ 101.87	\$ 2,144,052	See "B.Const. Costs"
Liability Insurance	0%	of	\$ 2,144,052	\$ -	% of Subtotal
Contractor O+P	0%	of	\$ 2,144,052	\$ -	% of Subtotal
<b>Subtotal</b>				<b>\$ 2,144,052</b>	
Const. Contingency	10%	of	\$ 2,144,052	\$ 214,405	
Escalation	3.00%	of	\$ 2,144,052	\$ 64,322	
<b>Total Hard Costs:</b>				<b>\$ 2,422,779</b>	attached

#### SOFT COSTS

	Amount	Unit	\$/Unit	Subtotal	Notes
Design Fee	11.01%	of	\$ 2,422,779	\$ 266,760	Architectural + Engineering as % of Const. Cost Total-schedule B percentage
Reimbursable Expenses ±	3.0%	of	\$ 266,760	\$ 8,003	
Supplementary Design Fees	1	EA	\$ 52,000	\$ 52,000	Civil, Commissioning, Erosion Control, Data, etc.
Historic Tax Credit Application	1	EA	\$ 35,000	\$ 35,000	Part 1, 2, 3
Owner Project Management	1	EA	\$ 15,000	\$ 15,000	
Tax Credit Legal Services	1	EA	\$ 71,000	\$ 71,000	
Legal/Marketing	1	EA	\$ 5,000	\$ 5,000	Placeholder
Appraisal	1	EA	\$ 6,000	\$ 6,000	Placeholder
Construction Loan Closing Costs	1.1%	of	\$ 2,825,000	\$ 31,075	
Insurance (Bldr's Risk and Liability)	0.35%	of	\$ 2,422,779	\$ 8,480	RS Means
Interest During Construction	1	EA	\$ 95,000	\$ 95,000	
Other Fees (Plan Review & Building Permit)	0.80%	of	\$ 2,422,779	\$ 19,382	See Costs
Misc.:	0	EA	\$ -	\$ -	
<b>Total Soft Costs:</b>				<b>\$ 612,700</b>	

**TOTAL PROJECT COSTS: \$ 3,035,480**

**QUALIFYING REHABILITATION EXPENSES: \$ 3,035,479**



Granite County Museum & Cultural Center

135 S. Sansome St., Philipsburg, MT 59858

FINANCIAL PRO FORMA ANALYSIS

MARCH 2024

HIGH PLAINS ARCHITECTS - 2720 Minnesota Ave, Billings, MT 59101

2. TAX CREDITS and GRANTS

HISTORIC TAX CREDITS

				Subtotal	Notes
QRE (Qualified Rehabilitation Expenditures)			\$	3,035,479	
IRS Allowed Developer Fee @	15%	of QRE	\$	455,322	
Total QRE:			\$	3,490,801	
Federal Tax Credit @	20%	of QRE	\$	698,160	
State of Montana Tax Credit @	25%	of Fed. TC	\$	174,540	
Total Fed + State Hist. Tax Credits:			\$	872,700	
Portion of Tax Credits available for Equity @ 87.5%:			\$	763,613	

OTHER CREDITS

Renewable Energy Tax Credits (RETC)	kW	\$/kW		Subtotal	Notes
PV array cost	35	\$ 3,500	\$	122,500	
Tax Credit Rate	50%		\$	61,250	From Prelim. Statement of Probable Costs for PV and Solar Cladding
Total RETC Value:			\$	61,250	
45L Program	Value		Units		
Tax Credit Rate	\$ 2,500	per	17		
Total 45L Value:			\$	42,500	
Energy Efficient Appliances	Value		Units		
Rebate at sale rate	\$ 1,000	per	17		Estimated value
Total EEA Value:			\$	17,000	
Heat Pump Tax Credit	Value		Units		
Tax Credit Rate	\$ 2,000	per	17		For valid air and water heat pumps
Total Heat Pump Value:			\$	34,000	

GRANTS

		Subtotal	Notes
Local Donations	\$	40,000	
Other Grants	\$	500,000	Montana Historic Preservation Grant
Total Grants:		\$	540,000

# Granite County Museum & Cultural Center

135 S. Sansome St., Phillipsburg, MT 59858

## FINANCIAL PRO FORMA ANALYSIS

MARCH 2024

HIGH PLAINS ARCHITECTS - 2720 Minnesota Ave, Billings, MT 59101

### 3. SOURCES OF CASH

#### CASH

	Amount		\$/Unit	Subtotal	Notes
Capital Campaign Net	1	@	\$ 100,000	\$ 100,000	"Upfront Cash"
Investor Limited Partnership		@	\$ -	\$ -	
25% Historic Tax Credits Applied to Equity (pre-const.)				\$ 190,903	
75% Historic Tax Credits Applied to Equity (post-const.)				\$ 572,709	
Renewable Energy T.C. Applied to Equity				\$ 61,250	
45L Rebate Applied to Equity				\$ 42,500	Special Investor
HP Tax Credit Applied to Equity				\$ 34,000	Special Investor
Total Grants & Donations				\$ 540,000	
Total Cash:				\$ 1,541,363	

#### EQUITY

	Amount	Unit	\$/Unit	Subtotal	Notes
Property Value (Land)			\$	204,285	Based on 2023 Tax Appraisal
Property Value (Building)			\$	289,410	
Total Property Equity				\$ 493,695	Used to develop an assigned value
TOTAL CASH + EQUITY				\$ 2,035,058	

#### CONSTRUCTION LOAN

			Subtotal	Notes
Construction Loan [Equal to Total Project Costs minus Upfront Cash & EEA Rebates]		\$	2,727,577	
Set Aside for Closing Costs:		\$	2,825,000	
Construction Loan Interest @		8.00%	\$ 18,184	monthly max.
Assume average of	\$ 9,092	10 months	\$ 90,919	
Interest Set Aside:		\$	95,000	

#### PERMANENT LOAN

		Subtotal	Notes
Total Project Cost	\$	3,035,480	
Less Cash + Cash Equivalents (Grants, Tax Credits, etc.)	\$	(1,541,363)	
	\$	-	
Commercial Loan:		\$ 1,494,117	Subtotal
Interest rate:		7.50%	
Amortized over:		20 years	
		240	monthly payments
Principal + Interest (Monthly):		\$12,037	
Principal + Interest (Annually):		\$144,438	
Total Monthly Financing:		\$12,037	Principal + Interest / month
TOTAL ANNUAL FINANCING:		\$144,438	Principal + Interest / year

Equity to Project Value (Cash only)	\$ 1,541,363		
	\$ 3,035,480	=	50.8%
Equity to Project Value (Cash + Equity)	\$ 2,035,058		
	\$ 3,035,480	=	67.0%
Commercial Loan to Project Value	\$ 1,494,117		
	\$ 3,035,480	=	49.2%

Granite County Museum & Cultural Center

135 S. Sansome St., Philipsburg, MT 59858

FINANCIAL PRO FORMA ANALYSIS

MARCH 2024

HIGH PLAINS ARCHITECTS - 2720 Minnesota Ave, Billings, MT 59101

4. INCOME

PROJECTED GROSS INCOME

	Rentable Area	Monthly Rent/SF	Yearly Rent/SF	Monthly Rent	Yearly Rental	Notes
Basement						
Commercial + Res. Storage	-			\$	-	
First Floor						Refer to Projected Income Worksheet
Commercial	2,777		\$ 5.00	\$ 1,157	\$ 13,885	
Second Floor						
Residential Apartments	3,465		\$ 36.02	\$ 10,400	\$ 124,800	
Third Floor						
Residential Apartments	3,565		\$ 27.10	\$ 8,050	\$ 96,600	
Potential Annual Income:					\$ 235,285	
Less Residential Vacancy Rate of 3%					\$ (2,898)	
GROSS ANNUAL INCOME					\$ 232,387	

BUILDING OWNER EXPENSE ANALYSIS

					Yearly	Notes
Building Insurance	\$ 2,000	per \$1M of bldg value			\$ 5,424	
Property Taxes @	0.60%	of total Construction Cost			\$ 14,537	Yr. 2: escalates
Maintenance					\$ 2,000	
Common Area Cleaning @	3,479	SF	@	\$1	\$ 3,479	Residential*
Common Utilities @	3,219	SF	@	\$0.50	\$ 1,610	Residential**
Supplies					\$ 300	
Accounting					\$ 2,000	tax review, pay utilities
Capital Reserve @	\$300	per unit/yr.			\$ 5,100	Residential
Management Fee @	8%	Gross Income			\$ 18,591	
Total Annual Operating Expenses:					\$ (53,041)	
NET OPERATING INCOME:					\$ 179,346	(Cash Flow)
Less Debt Service:					\$ (144,438)	(Financing)
NET INCOME / FIRST YEAR					\$ 34,908	***
Debt Coverage Ratio at Year 1:					1.24	

\* According to BOMA, the average US office building has cleaning costs at \$1.50/SF/year. Past HPA projects have been averaging about \$1/SF/year.

\*\* This assumes about \$0.50/SF/year for the whole building area and covers water, sewer, garbage for the whole building, electricity for central mechanical systems, and electricity for common areas.

\*\*\*Note: Operating reserve can be used to cover shortfalls in early years of project.



# Granite County Museum & Cultural Center

135 S. Sansome St., Philipsburg, MT 59858

## FINANCIAL PRO FORMA ANALYSIS

MARCH 2024

HIGH PLAINS ARCHITECTS - 2720 Minnesota Ave, Billings, MT 59101

### D6. 10-YEAR-PLUS INCOME

Annual escalation rate:

CASH FLOW (after stabilization)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	100.0%	100.0%	102.8%	105.6%	108.5%	111.5%	114.5%	117.7%	120.9%	124.2%
Gross Income / Year	\$ 222,600	\$ 222,600	\$ 232,387	\$ 245,344	\$ 252,091	\$ 259,023	\$ 266,147	\$ 273,466	\$ 280,986	\$ 288,713
Operating Expenses / Year	\$ (53,041)	\$ (53,041)	\$ (53,041)	\$ (55,998)	\$ (57,538)	\$ (59,120)	\$ (60,746)	\$ (62,416)	\$ (64,133)	\$ (65,897)
Net Operating Income / Year	\$ 169,559	\$ 169,559	\$ 179,346	\$ 189,346	\$ 194,553	\$ 199,903	\$ 205,401	\$ 211,049	\$ 216,853	\$ 222,817
Debt Service	\$ -	\$ (144,438)	\$ (144,438)	\$ (144,438)	\$ (144,438)	\$ (144,438)	\$ (144,438)	\$ (144,438)	\$ (144,438)	\$ (144,438)
<b>NET INCOME / YEAR</b>	<b>\$ 169,559</b>	<b>\$ 25,121</b>	<b>\$ 34,908</b>	<b>\$ 44,908</b>	<b>\$ 50,115</b>	<b>\$ 55,465</b>	<b>\$ 60,963</b>	<b>\$ 66,611</b>	<b>\$ 72,415</b>	<b>\$ 78,379</b>
Operating Reserve estimated to be used \$0.00		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Effective Income w/ Reserve</b>		<b>\$ 25,121</b>	<b>\$ 34,908</b>	<b>\$ 44,908</b>	<b>\$ 50,115</b>	<b>\$ 55,465</b>	<b>\$ 60,963</b>	<b>\$ 66,611</b>	<b>\$ 72,415</b>	<b>\$ 78,379</b>
<b>ROI w/ Reserve</b>		25.1%	34.9%	44.9%	50.1%	55.5%	61.0%	66.6%	72.4%	78.4%
<b>Cumulative w/ Reserve</b>	\$ 169,559	\$ 194,681	\$ 229,589	\$ 274,497	\$ 324,612	\$ 380,078	\$ 441,040	\$ 507,652	\$ 580,067	\$ 658,445
<b>Debt Service Coverage Ratio</b>		1.17	1.24	1.31	1.35	1.38	1.42	1.46	1.50	1.54

#### TIMELINE



Granite County Museum & Cultural Center

135 S. Sansome St., Philipsburg, MT 59858

PROJECT BUDGET

MARCH 2024

HIGH PLAINS ARCHITECTS - 2720 Minnesota Ave, Billings, MT 59101

	SOURCE: MHPG	SOURCE: Granite County Museum & CC*	SOURCE: STATE & FED HISTORIC TAX CREDITS, ADDITIONAL CREDITS	SOURCE: LOCAL DONATIONS	SOURCE: COMMERCIAL FINANCING	CONSTRUCTION COST TOTAL
DEMOLITION/EXISTING CONDITIONS	\$50,000	\$10,000	\$73,242	\$0	\$0	\$133,242
SUBSTRUCTURE	\$0	\$10,000	\$7,941	\$0	\$0	\$17,941
SHELL	\$300,000	\$20,000	\$73,870	\$0	\$0	\$393,870
INTERIORS	\$150,000	\$10,000	\$30,722	\$0	\$0	\$190,722
SERVICES	\$0	\$10,000	\$600,000	\$25,700	\$253,496	\$889,196
EQUIPMENT AND FURNISHINGS	\$0	\$10,000	\$0	\$7,100	\$0	\$17,100
BUILDINGS SITEWORK	\$0	\$0	\$0	\$7,200	\$0	\$7,200
CONST FEES, ESCALATION	\$0	\$10,000	\$0	\$0	\$484,781	\$494,781
HARD COST CONTINGENCY	\$0	\$10,000	\$0	\$0	\$268,727	\$278,727
SOFT COSTS (Including Architectural and Engineering Design Services)	\$0	\$10,000	\$115,588	\$0	\$487,112	\$612,700
TOTAL PROJECT BUDGET	\$500,000	\$100,000	\$901,363	\$40,000	\$1,494,116	\$3,035,479
	Pending	Confirmed	Pending	Confirmed	Pending	

\* Granite County Museum and Cultural Center commits to match a minimum of 20% percentage of any MHPG funding received. There will need to be some further investigation from preliminary work to get finalized construction pricing.



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