New Mexico Department of Cultural Affairs
Historic Preservation Division
2014 CLG Grant #35-13-51938.013
Project 1: Rawlins Building,
Feasibility Assessment



Preservation Plan

Rawlins Building

529 & 531 Railroad Avenue, Las Vegas, NM

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INTRODUCTION

The purpose of this preservation plan is to offer guidance for the preservation and continued use of the Rawlins Building. Recommendations comply with the Secretary of the Interior's *Standards for Rehabilitation*. For general purposes, changes to the building are weighed against the concepts listed here:

- New uses and occupancies would be accommodated with minimal modification to historic spaces, internal spatial relationships, and external relationships to adjacent buildings and spaces;
- Historic fabric would be retained and repaired as much as possible;
- Significant features of the building would remain in, or close to, original condition;
- Historic character of the building as exhibited through style, form, and finishes would be maintained.

Specifically, the report addresses remedial measures to repair the existing structural damage and methods to stabilize and to prevent further deterioration to the building. It should be used in conjunction with the associated structural report (Hands Engineering, Inc.) and the architectural documents (Jonathan Whitten + Associates).

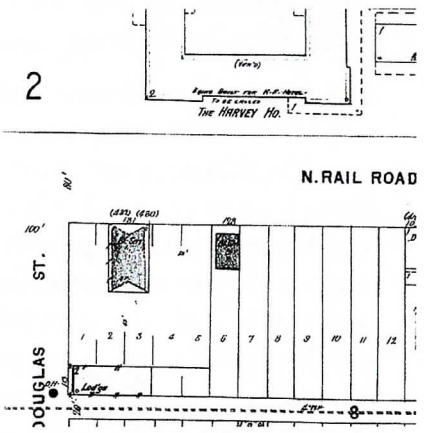
Site visits were conducted from June through August 2014. In addition to the discussion about structural conditions, the report identifies significant features and spaces of the Rawlins Building. The report includes considerations of spatial remodeling and information concerning repair, modification, or replacement of elements.

This preservation plan does not address every issue that may arise in a particular reuse scheme, nor does it cover every piece of historic fabric and offer compatible solutions for repair or reuse. In a potential rehabilitation, all proposed modifications and treatments must be evaluated against life safety codes, applicable construction regulations, and occupancy requirements. This plan may be used as an orientation to maintain the historic character of the Rawlins Building through sensitive management of the building's historic fabric.

BACKGROUND

The Rawlins Building, 529 and 531 Railroad Avenue, is a significant structure within the Railroad Avenue Historic District (National Register of Historic Places, SR#344). A building at the subject location appears on the Sanborn Fire Insurance Company map of 1898. According to the key, it is a one story structure of stone wall construction and a wood framed roof. The map shows an undivided interior space with three windows on the north wall. The building occupancy is listed as "blacksmith" and the fire insurance company evaluated this building as a "special hazard." There are no adjacent buildings indicated on the map.

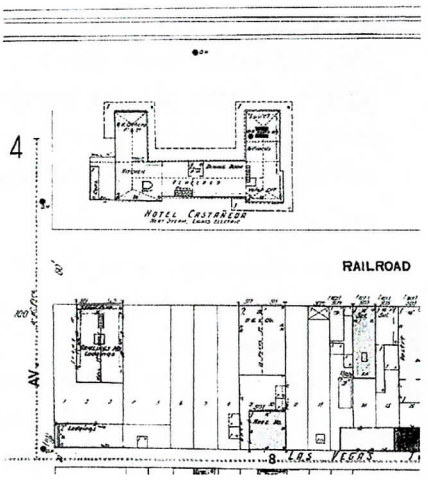
By the following year, the building had undergone significant changes (and ownership, perhaps). "A Supplement to The Las Vegas Daily Optic, Building Edition," April 15, 1899 describes the Rawlins Building and includes a photograph. The one story street front contains two recessed entries and a central doorway, bulkheads, display areas and leaded glass transoms. The storefronts are unified and topped by a Commercial Brick Style panel with bas relief dentil frieze and curvilinear parapet. The "Optic" reports the owner, W. W. Rawlins, "had plans made for a 40-foot addition and a second story to be occupied as apartment rooms."



Sanborn Fire Insurance Co., Las Vegas, NM 1898, page 3

Soon after, at least some of the improvements had been realized, according to the 1902 Sanborn map. The interior ground level is bisected with a framed lath and plaster wall, east to west, into two sections, the second story was added, accessed by a stairwell behind the center doorway and the building was extended at the back (west) with brick wall construction at both levels. The second floor perimeter walls were constructed of brick except the front, which was wood frame to support a pressed metal facade. Plaster on wood lath interior partitions created a central space with a skylight, and rooms around the perimeter. The building occupancy is listed as "lodging".

The Rawlins Hotel provided housing for Fred Harvey employees, specifically "the Harvey Girls", of the Castañeda Hotel located directly across Railroad Avenue.



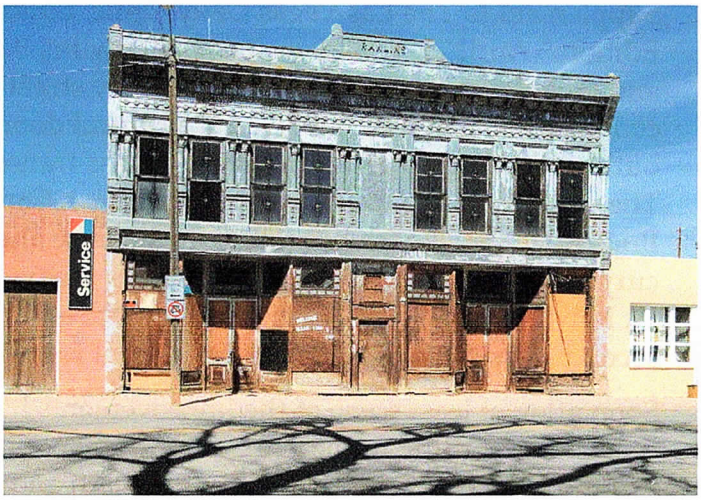
Sanborn Fire Insurance Co., Las Vegas, NM 1902, page 3

CURRENT CONDITION

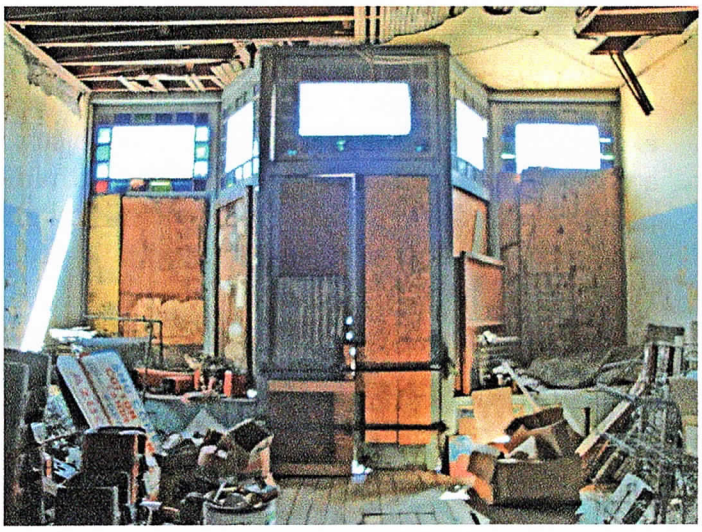
The Rawlins Building is a deep, narrow two story building. A mortared rubble stone foundation lies under all walls. First level north and south exterior walls are rubble stone: the front (street) façade is wood and glass storefront. The rear facade contains a pair of exterior doors. Second floor perimeter walls are brick, except the front is wood-framed and metal covered. Windows punctuate each face of the second floor exterior walls. Stepped brick parapets extend upward past the roof surface. Both north and south exterior brick walls contain painted advertisements. The roof is a gable with a hip at the west end. The finish is standing metal seam roofing material: finish material is missing from the rear (west) hip. There is a framed cricket along both north and south perimeters: it has been repaired numerous times and continues to fail.

The ground level facade contains two identical storefronts: wooden panel bulkhead, pair of recessed glazed entry doors, display windows, and leaded transom panels. The storefronts are separated by a center panel with a single door. Most of the display glazing is not present: the transom leading is intact and in fair condition. Exterior wood components are extant, but are extremely weathered: interior wood components are in fair condition. The piers of the rubble stone walls at south and north edges are plastered and scored with an ashlar stone pattern. Some plaster is missing: some areas do not have good adhesion to the stone substrate.

The ground level interior is divided by an east-west center wall. Each half is divided into two spaces: the front sections are deep and high-ceilinged; the rear "additions" are nearly square and high-ceilinged. All walls are plastered. Original and more recent plaster finish varies from good to very poor.



East elevation along Railroad Avenue



North side interior storefront

In all ground level rooms, flooring is wide tongue-and-groove planks on joists. Joists are let into the stone foundation and rest directly on the ground across the span. Exposed joists along the stone perimeter walls show severe deterioration from water damage resulting from the roof failure. Water damaged flooring material has been removed completely for approximately four feet along the south wall, along the northwest area in the front north section, and in most of the north rear room. There is some buckling in other areas. There is a hole in the foundation wall at the northwest portion of the north wall. A profiled wide base and shoe at the wall/floor intersection remains in some areas.



Rear/west elevation showing brick wall with door and window conditions, and roofing

The ceiling/floor structure consists of a series of ceiling joists and separate floor joists that bear on north and south stone walls, the mid-span beam, and the center framed wall. There is a series of rough-hewn columns on concrete bases located along the longitudinal midline of each space. The columns support composite beams which support the ceiling joists and the second level floor joists: the north beam spans approximately 2/3 of the depth of the space. Judging from the lack of refinement of the column and beam features, they would seem to be installed at a time other than either of the major construction periods of the building, possibly to mitigate the second floor loading. Nevertheless, the ceiling joists and the floor joists above exhibit a significant amount of deflection. Furthermore, the joist ends at the north and south perimeters are significantly deteriorated from water damage resulting from the roof failure. There is no ceiling finish in the north section. In the south section, the ceiling finish is 1930s fiberboard tiles. Over half of this material has been removed: the remaining tiles are in poor condition.

The back wall of the front room contains wood cased openings - a door and two windows in each unit, ranging from poor to good condition. Beyond this wall, the floor level in the addition is raised by approximately six and one half inches. Floor construction and condition is the same as the front spaces. Most of the north floor has been removed. Some of the profiled wide base and shoe at the wall/floor intersection remains. Along the interior center wall, each room contains an enclosed 180° winding stair to the second level and a straight stair downward to a crawl space. The north crawl space has been in-filled. Openings in the rear wall are similar on each side: wood panel door with sidelights and arched transom, flanked on each side by tall arched window openings. Interior openings are wood cased. The windows and door units are in poor condition.

The second level pressed metal front seems to be a Mesker Bros. manufacture, judging from the construction date of the second floor and some of the embossed patterns. The base metal appears to be galvanized. The design is symmetrical around a vertical midline. A simple horizontal metal entablature rests above the transom windows of the ground level. Above each ground level storefront sits two pairs of double hung 1/1 wood windows. Pairs of pressed Corinthian pilasters on floral embossed bases divide the pairs and flank them. Single pilaster assemblies separate the paired units. A decorative embossed panel sits directly above the ground level single central door. A classic Corinthian entablature with decorative embossed architrave, frieze, end brackets, and cornice complete the front. The metal appears to be in good condition. Some joints and end pieces are unattached from adjacent material. Metal grilles with central floral medallions are applied over the window openings. This addition took place in the 1970s.

A straight stair leads to the second floor behind the single central door. The front and rear staircases open into a central rectangular-shaped atrium. The front stair landing rail is constructed of turned balusters with substantial newel corner posts. The back stairs are detailed with exposed wall stringers, cove molding, and metal dust corners. The atrium is dominated by a large gable skylight atop deep curb walls. The metal skylight frame is deeply deflected along its peak: wire glazing is cracked and fasteners are failing. The interior of the well, a half story deep at the building's midline, is finished with vertical bead board.

Cased openings punctuate the atrium walls. Sleeping rooms, communal baths, toilets, closets, and laundry rooms surround and are accessed through this space. Detailing and finish work on this level is highly refined. Entry units into the atrium include a glazed transom and 4-panel doors. All openings, including borrowed lights, are cased with plinth blocks, pilaster, and corner block molding. Many of the openings are not square and doors do not operate freely. Baseboards are high and profiled with a base shoe. Outside corners of walls are protected with turned wood guards. Casework and detailing located away from the perimeter walls, generally, is in good condition.



Second floor atrium, looking at rear stairwells, showing trim, flooring, and finish conditions

Second floor exterior walls are brick with plaster finish. Interior walls are wood frame with plaster on lath finish. Ceiling finish is spotty and is in poor condition: there are some interlocking fiber panels and some areas of

original plaster on lath. Flooring throughout is tongue-and-groove wood strip. There are remnants of more recent finishes, such as linoleum and composition tile in some areas. The condition of all of these materials varies from fair near the center of the building to severely deteriorated at the north, west, and south walls.



Second floor from the north showing parapets, openings, and signage

Overall, the areas along the north and south side walls have borne the brunt of the roofing failure. Moisture has been entering and saturating the building elements in these locations. As a result, ceiling and floor structural members at all levels are severely deteriorated; finishes on both levels have dissolved, buckled, or detached from substrates; sheeting water has damaged the rear brick wall, and some areas have fallen away; openings in the building envelope have allowed birds and vermin to enter and accelerate the building's decline.



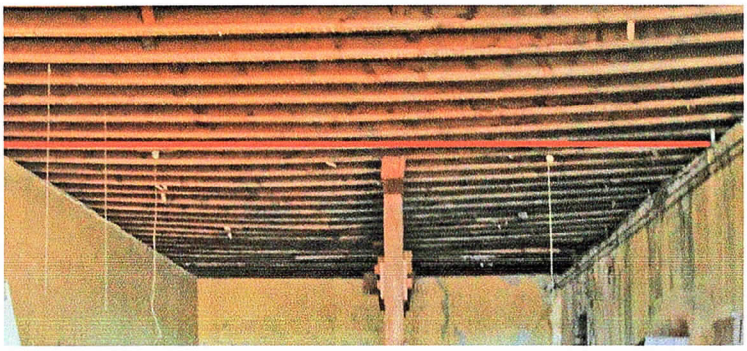
Second floor sleeping room showing typical finish conditions

STRUCTURAL SYSTEM

Any rehabilitation and reuse of the Rawlins Building will hinge on the successful reparation of the elements of the floors and roof structural systems. The wood framing elements of the building suffer from the following conditions:

- Every member of the roof, floor/ceiling, and ground floor structural members have been compromised by water damage from the roof failure;
- The second floor loading has deflected every floor joist and ceiling joist to unacceptable levels;
- The ground level floor joists are set directly on the ground.

Discussions to correct these conditions included several options for each situation. The solution package presented in the architectural and structural documents included with this project constitute the options that most closely comply with the Secretary's *Standards for Rehabilitation* by retaining the highest possible amount of historic fabric, preserving the significant spaces, and maintaining the historic character of the building. Briefly, the structural repairs include these elements:



First floor ceiling structure; red line shows deflection from horizontal across span

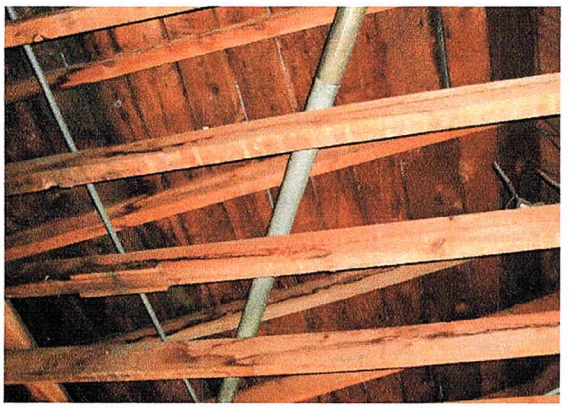
- Ground level: Remove tongue-and-groove flooring for reuse. Remove floor joists and pour concrete slab with slip joint along stone foundation walls. Maintain change in elevation at back room. The transition between spaces could be achieved with a ramp or a step, depending on the reuse occupancy. Reinstall plank flooring over slab to original floor elevation.
- Floor/Ceiling: Add structural column/beam grid system to reduce spans; add new joists to support



Southwest corner of second floor showing damage to roof and ceiling structural members and west brick wall

existing and proposed second floor loads. The finish and detailing of the new columns and beams should complement the historic character of the ground level spaces. For instance, metal pipe or square tube columns could be exposed and painted; sectional columns should be boxed; beams should be boxed or enclosed in a finished soffit. The intersection of the beams with the storefront will require consideration.

- Roof: A) Remove framed cricket and deteriorated decking. Reconstruct the framing to match the original in size, position, and profile; sister new joist members to the existing raking and horizontal joists and bear on new ledger; B) remove entire roof structure and reconstruct with new materials. Finished structure should match the original in size, height, position, and profile.



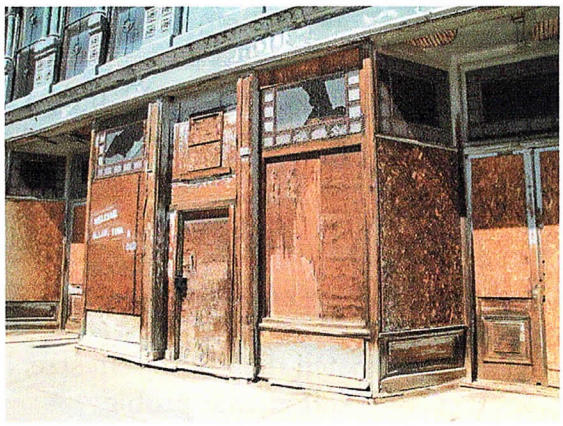
Roof decking and truss system, showing water damage from failing gutter

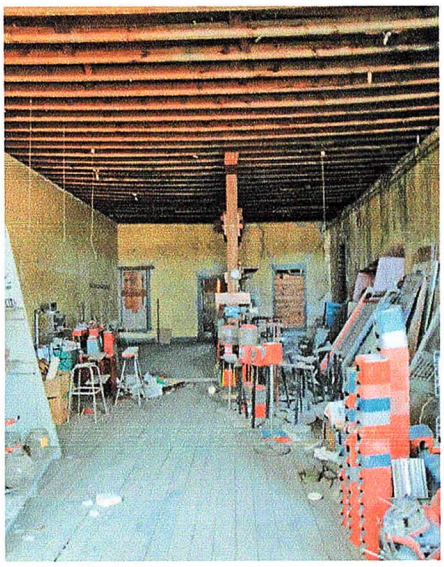
All structural work must be done with adequate bracing and shoring in place. Sequencing should follow engineering recommendations.

SPATIAL CONSIDERATIONS

The storefront commercial spaces of the ground level and the public/private arrangement of the second level characterize the historic development and use of the Rawlins Building. Schemes to accommodate new uses and occupancies for the building during a rehabilitation project should consider the following objectives:

- Reestablish the historic street presence and storefront. Restore the door accesses and display windows to recreate a physical and visual connection between the street and the interior space;
- Retain the sense of volume of the ground level commercial spaces. Low walls could divide the main large spaces, if needed. Floor to ceiling walls should be placed well behind storefront to maintain display space;
- On the second floor, maintain the central public circulation space and its relationship to the spaces located along the perimeter. Preserve the atrium in its original form and volume; retain the perimeter walls, openings, and stairwell(s). The particular division of space around the atrium, along the perimeter exterior walls is unexceptional. Modifications to these spaces are an option in a new use/ rehabilitation project. Rearrangement of walls should respect the placement of existing openings, both on the interior and exterior.





New construction should complement the historic character of the building. Some suggestions to accomplish this are using architectural detailing and trim, choosing materials with refined and polished qualities, and painting wood elements (like cabinetry and trim) instead of using a transparent finish.



Significant spaces of the Rawlins Building

Top: Storefront along Railroad Avenue, showing bulkhead, display, and transom assembly

Middle: First floor north room, south room similar

Bottom: Second floor public atrium with skylight

ROOF

The roof finish material is metal standing seam "Copperoid". It is an interesting, but not highly visible feature of the building. The sloping panels appear to be in generally good condition, but they are missing from the west hip. The guttering channels along the north and south parapet walls have failed over the years. The seams have been repaired using roofing tars: the areas below the gutters have seen the most dramatic water penetration and damage.

After correcting the structural damage, there are several options for refinishing. If existing "Copperoid" finish material can be removed without damage and is in good condition, it may be reused. As an alternative, new material, such as tab shingle, metal, or EPDM membrane that is appropriate for the slope and condition of the substrate may be considered. New roofing materials should be applied according to all manufacturers' recommendations, building codes, and good construction practices. Special attention should be paid to the intersection of the roof surface and the parapet wall.



"Copperoid" roofing and gutter with repairs

All flashing should be well seamed and joined to adjacent material. If flashing is fastened to brick parapet walls, mortar or other adhesives should be compatible in porosity, hardness and composition to surrounding materials.

The installation of high R-value insulation in the attic/roof structure space is an effective way to improve energy efficiency, while having little effect on the historic fabric of the structure.

The skylight should be maintained, although it is in poor condition: the framing deflects significantly along the peak. Repair of the historic frame may not be feasible. Fabrication of a new frame to match the existing configuration, material shapes,



Skylight showing structural condition and deflection

profiles, and proportion is acceptable. Flashing should be designed to prohibit water penetration into or around the skylight opening. Depending on the new use of the building, existing glazing may be replaced with new wire glass or other transparent materials that comply with applicable codes.

Roof water run-off must be collected and deposited away from the building walls. Gutters, outlets, and downspouts along the west roof edge should be sized and located to evacuate a reasonable rainfall in the Las Vegas area. Downspout ends should terminate several feet away from the building wall onto splash blocks to prevent backsplash. Alternately, rainwater could be removed through a below-grade water drainage system or a cistern.

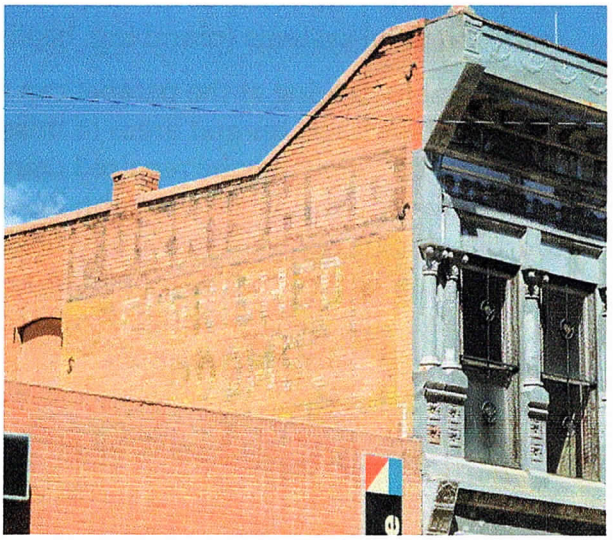
Finished grade at the west wall should slope away from the building for approximately ten feet. Create a slip joint at the brick/stone wall if hard paving material is used as a finished surface. Slope for hard surfaces should be ¼" per foot.

BRICK AND STONE

Areas of both brick and stone wall constructions require repair. Some areas of deterioration are severe.

A mortar analysis is essential to determine the material's components and composition. Original mortar should be analyzed to determine a compatible recipe for repointing. Use mortar to match the existing material when tuckpointing, replacing brick, or reconstructing portions of walls. There are services that analyze historic mortars and create recipes to match. In the case of the Rawlins Building, it may be prudent to sample mortars from both the stone construction and the brick construction.

In areas where mortar is unconsolidated, and the wall is plumb and true, only repointing may be required. Friable mortar or areas of incompatible mortar should be removed and replaced with mortar that matches the surrounding material. Remove mortar gently, using a hammer and chisel. Do not use hand angle grinders or similar power tools.



Southeast corner of building showing signage and parapet condition

Brick walls should be repaired to duplicate the original condition. Replacement bricks should match the original in color, texture, and porosity. Deteriorated brick should be removed using hand tools. The application of water repellant coatings is unacceptable.

Both north and south second floor exterior walls contain painted advertisement. These features should be retained in their current condition. Repair or repainting should be performed by a professional trained in conservation practices.

In some areas, especially at the northwest and southwest back corners, sections of the wall may need to be rebuilt. Remove deteriorated materials carefully. Shore any structural members that bear in the area as well as sections of the walls that may be affected by removal of material. Stockpile bricks that may be reused. After the section to be rebuilt is clear, re-lay the materials to match the surrounding coursing, pattern, spacing, and mortar profile. Take care to

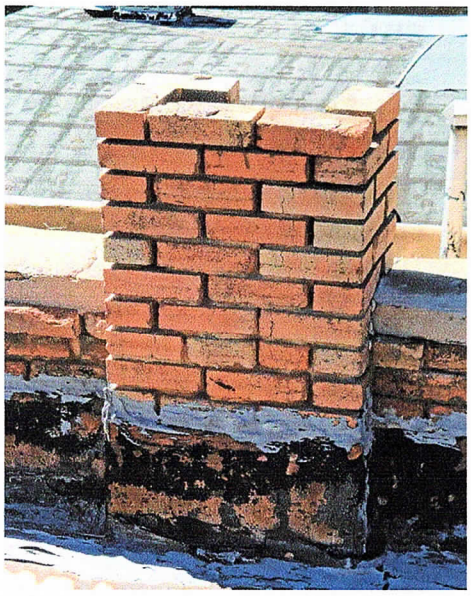


Southwest corner showing significant brick damage

re-establish sills, arches, etc. It may be helpful to make measured drawings and photo-document the area prior to the start of work to be certain the section is replaced accurately.

There are remnants of brick chimneys along the south and north parapets. Conditions vary from fair to poor. Like other areas of deteriorated brick, rebuild the chimneys to the original shape, using historic materials or materials that match properties of surrounding materials. The chimneys present an opportunity for reuse as an element of new environmental systems (plumbing, heating, cooling).

The concrete parging at the parapet cap should be examined for fractures and areas of missing or friable material. This area may be repaired using a product with proven performance, like Jahn Restoration Mortars. If damage is extensive and the concrete material can be removed without damaging the underlying brick, a new coating that is compatible with brick porosity may be applied.



Chimney along south parapet showing typical condition



South parapet showing condition of brick, parging, and gutter

EAST FAÇADE

The east façade of the Rawlins Building is its most significant feature. Although the exterior wood elements of the ground floor front are extremely deteriorated, the arrangement is obvious and there appears to be sufficient material to determine the original design. Interior elements appear to be in fair to good condition. Reestablishing this ensemble at interior and exterior in its original form is highly desirable.

Repair of the historic material is the preferred method of rehabilitation, such as mending historic joinery, realigning to trueness, etc. Elements which are beyond reasonable repair, may be replaced with new material that matches the original shape and profile exactly. The use of new material to fill areas of deterioration is acceptable. Small areas of rot may be strengthened and filled with a consolidant (such as Abatron) provided the product has a proven record of performance and it is compatible with the surrounding historic element, and applied according to the manufacturer's recommendations. Missing elements may be recreated by using patterns made from other similar elements of the assembly.

If the storefront assembly is beyond reasonable repair, solutions using new materials may be acceptable. The design for a compatible replacement should include the following criteria:

- Incorporate the basic elements of the storefront — bulkhead, recessed entries display windows, transom windows, and signboard in a manner that suits the style and period of the original construction;
- Maintain the proportions of bulkhead/ display window/transom
- Maintain the proportional "weight" of the framing to the glazing elements (corners, muntins, etc.);
- Use materials and finishes that relate to the historic character of the building.

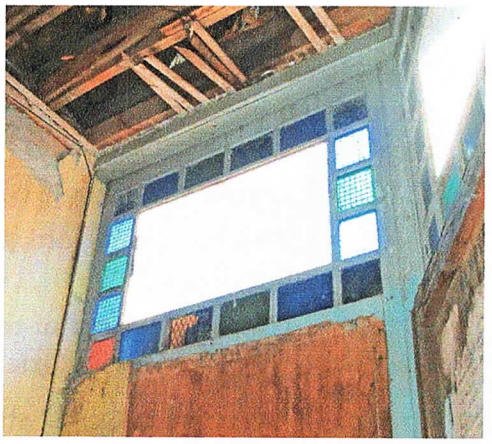




Top: Transom, display, and bulkhead of north storefront

Right: Detail showing condition of wood elements

Bottom: Interior of storefront showing leaded transom glazing



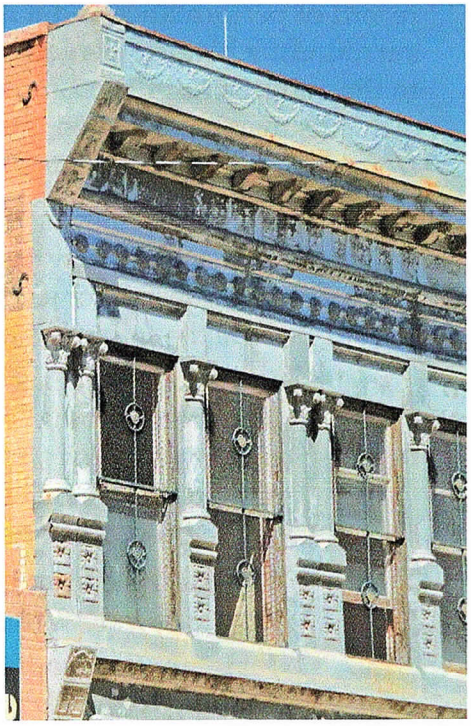
Restoration of plaster at the side piers of the storefront requires special care. Tuckpoint stone joints as needed before proceeding with plaster work. The plaster may be repaired using a product with proven performance, like Jahn Restoration Mortars, or reapplied with a compatible mixture. The new plaster finish should be scored to replicate the ashlar stone detail of the original construction. Measured drawings and photo-documentation of the area prior to the start of work may be helpful in the replication process.



Side pier exterior plaster and ashlar patterning

Perform an inspection of the second floor wood framing that supports the sheeting. Make repairs needed to establish a stable and sufficient structural system.

The metal sheet facing of the second floor appears to be in good condition, with the exception of some edge fastening failure. Use new connectors that are appropriate for the condition to be fastened to the framing. It is important to choose compatible fasteners and to guard against the possibility of galvanic action with the metal sheeting, if new metal fasteners are used.



Cornice, columns, and other motifs of the pressed metal sheeting

Preparation for the application of a new finish coat should be as gentle as possible to achieve desired results. Low pressure water, soap, and natural bristle brushes may remove scaled and flaking coatings. Sand blasting or glass bead blasting may be an acceptable cleaning treatment. Blast cleaning must be monitored closely throughout the entire process to be certain the grit does not pock the metal surface. Any hand scraping should be performed with care: do not incise blade points into the surface. Some chemical cleaning, especially at complex shapes may be appropriate. Test all cleaning methods and materials on a small area before using the technique extensively.

There is evidence of a uniform silver finish coat on the pressed metal front. A new paint palette could be created from several sources:

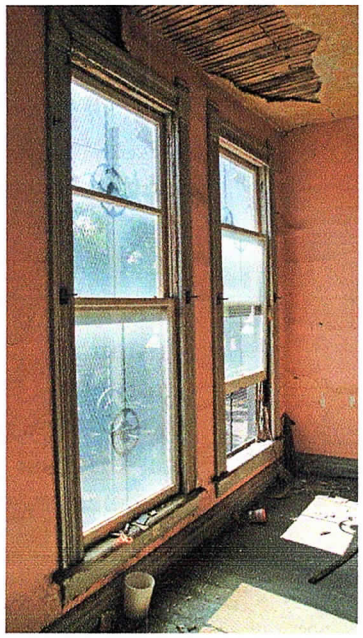
- Recreate the single color scheme;
- Choose colors from other Railroad Avenue Historic District metal front buildings;
- Use typical turn-of-the-twentieth-century color palettes recognized by architectural historians.

In any case, the finish coat(s) should be compatible with the metal surface.

EXTERIOR WINDOWS AND DOORS

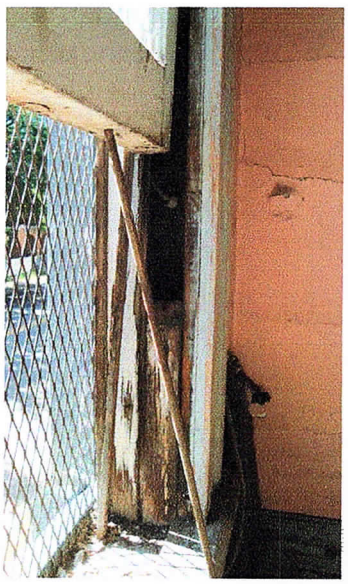
Windows, doors, and other openings are character-defining features. The design of the exterior openings in the Rawlins Building enhances its World's Fair Classic architectural style. The condition of the door and window units and associated elements range from fair to poor. A unit-by-unit survey would clarify the extent and nature of repairs to bring each assembly to a workable and sound condition. Removal or replacement of windows and doors is undesirable.

The front (east) and side (north and south) windows are double hung sash, 1/1 pane, in fair to good condition. In these units, repair of the historic material is the preferred method of rehabilitation, such as mending historic joinery, realigning to trueness, etc. Elements (such as individual pieces of frame, sash, track, trim, etc.) which are beyond reasonable repair, may be replaced with new material that matches the original shape and profile exactly. The use of new material to fill gaps from hardware removal or small areas of deterioration is acceptable. Small areas of rot may be strengthened and filled with a consolidant provided the product has a proven record of performance (such as Abatron) and it is compatible with the surrounding historic material, according to the manufacturer's recommendations. Missing elements, such as casing, may be recreated using patterns from other intact units.



Top: Typical windows of the east facade

Bottom: Detail of sash and frame



Preparation for new finishes should be as gentle as possible. Avoid sanding that removes excessive historic material or distorts surfaces. Avoid high pressure water that would penetrate and swell wood elements. Do not sandblast. Methods should be tested and evaluated on small, inconspicuous areas before proceeding to wide spread use.

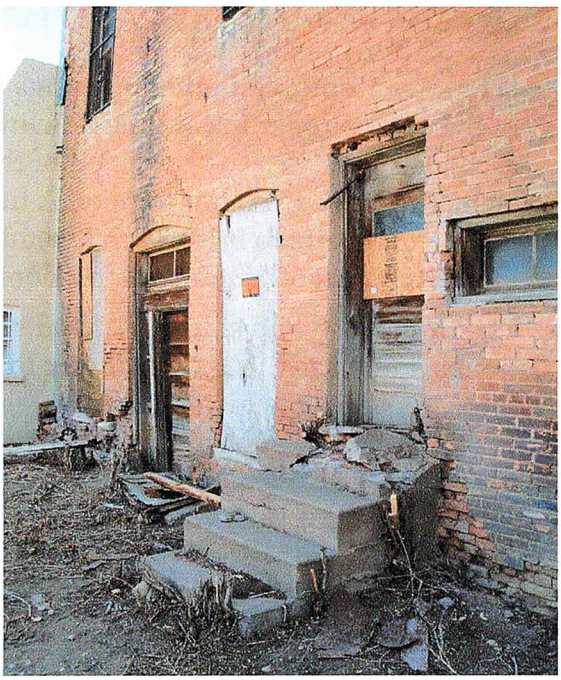
Windows and doors in the back (west) wall are severely deteriorated by roofing failure. There may be enough material from various openings to recreate new windows to match the historic units. Another option is to install new units. New windows should closely duplicate the operation, proportions and profile (frame, sash, molding) of the historic windows and fit within the original opening without enlarging the brick opening and with a minimum of infill.

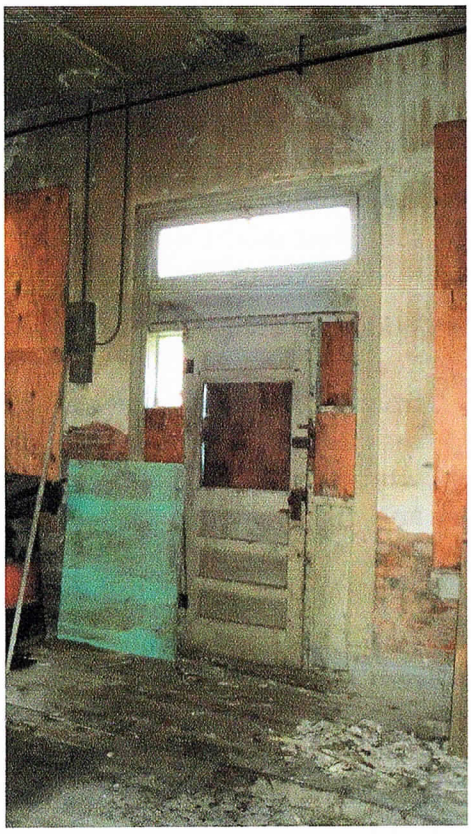
Hardware may be reused, if compatible with code requirements. Window sash cords may be replaced, when necessary, for smooth operation. The existing grills at the front (east) and rear (west) windows may be retained and repaired if they comply with applicable life safety codes.

Modifications for energy efficiency

Modifications for energy efficiency should be weighed against the financial cost, consequence to the historic material, and actual savings. Some suggestions to address thermal properties follow, in order of compatibility to the Secretary of the Interior's *Standards for Rehabilitation*:

- Installing clear, low-emissivity (low-e) film on existing single panes
- Installing weather stripping into original frames, sash, and panels, provided the new material does not alter the original configuration or proportion of the unit
- Installing interior or exterior storm panels, provided they do not intrude into or alter the look of the original patterns, and maintain the existing proportions of the sash, mullions, etc.
- Use of thermal shades, blinds, or draperies to achieve energy reductions and comfort levels
- Replacing original glazing with thermal glazing, provided the new material does not alter the original configuration, profile, or proportion of the unit.





Top: Doors and windows of the west facade showing typical exterior conditions

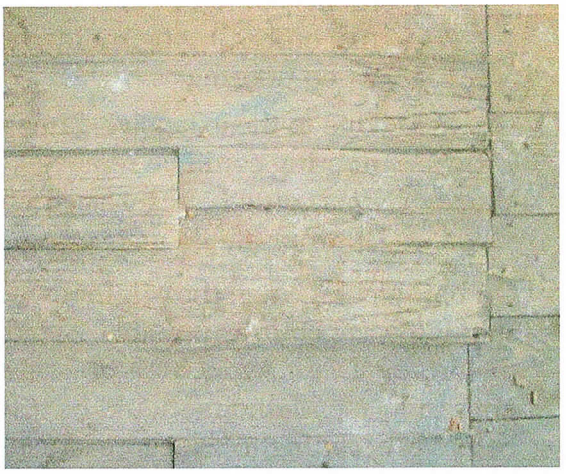
Bottom: Interior of a west facade door

INTERIOR FINISHES

Finishes and detailing are character-defining elements of any building. They convey information about the owners, craftspeople, and builders. In a larger context, they reflect social developments and styles. This is especially true of the Rawlins Building and its several phases of development.

Flooring

The first level flooring is wide tongue and groove wood planks set on joists. It appears to be in good condition, except along the north and south perimeters where it is buckled or it has been removed due to water damage. In consideration of the proposed structural remediation to the floor structure, the following options are listed, starting with the most compatible to the Secretary of the Interior's *Standards for Rehabilitation*:



Detail of first floor wood planks

- Carefully remove existing plank flooring for salvage. Reinstall the planks on an appropriate sleeper/ subfloor system after the new concrete floor slab is complete. Add material as needed that matches species, dimension, profile, and texture to cover the surface;
- Remove existing plank flooring. Install new wood plank flooring on an appropriate subfloor system after the new concrete floor slab is complete.
- Pour the concrete slab to finished floor level and install a covering that complements the historic character of the original first floor spaces. For example, use true linoleum or composition tile— not ceramic tile or wall to wall carpeting.

The floor finish on the second level is tongue-and-groove wood slats over a subfloor. The wood is narrower and was probably more finished than the material on the first floor. There are remnants of linoleum and composition tile over the original wood flooring in some areas. Even more than the first floor, the areas along the north and south perimeters are severely damaged, in addition to the area below the skylight.

The central public circulation space should be cleared of the more recent layers (tile, fiberboard, etc.) and retain its original wood floor finish: remove damaged flooring and replace with matching material.

Salvaging all of the original wood finish in surrounding spaces may be unreasonable: there is severe damage along the perimeter. There are several options:

- Remove damaged wood flooring and replace with material to match species, dimension, and profile;
- Remove salvageable wood flooring in some rooms and reinstall to make a complete surface in other rooms. The spaces to sacrifice and the ones to reconstruct would depend on the reconfiguration and use of the perimeter rooms. For instance, new service areas like bathrooms, kitchens, and utility rooms could be resurfaced with sheet material and linoleum or composition tile: offices, living rooms, bedrooms, etc. could retain original (and salvaged) wood flooring;
- Due to the extensive damage of the original flooring, as a last alternative, all flooring could be removed (except the central public circulation space). The area could be resurfaced with new wood flooring, or sheet material and an appropriate floor covering, like linoleum, composition tile, or carpeting.

On both floors, when the original wood flooring is reused, preparation for new finishes should be as gentle as possible. Avoid sanding that removes excessive material or distorts surfaces. Avoid high pressure water that would penetrate and swell wood. Do not sandblast. Methods should be tested and evaluated on small, inconspicuous areas before proceeding to widespread use. Take care to avoid damaging adjacent material like floor base. Installation of new flooring should maintain the original floor level. New finish material should sit under the baseboard molding. See "Interior Woodwork" for more information.

On the first floor, appropriate finishes for the plank flooring would be transparent coatings such as oil or varnish, or an opaque paint. On the second floor, a transparent coating like varnish would be most appropriate for the original wood flooring.

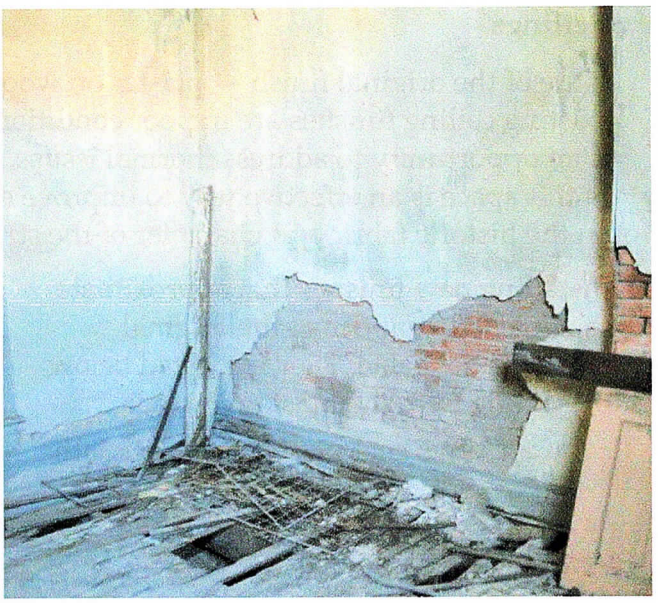


Second floor, northwest corner, showing the condition of the wood strip flooring

Walls

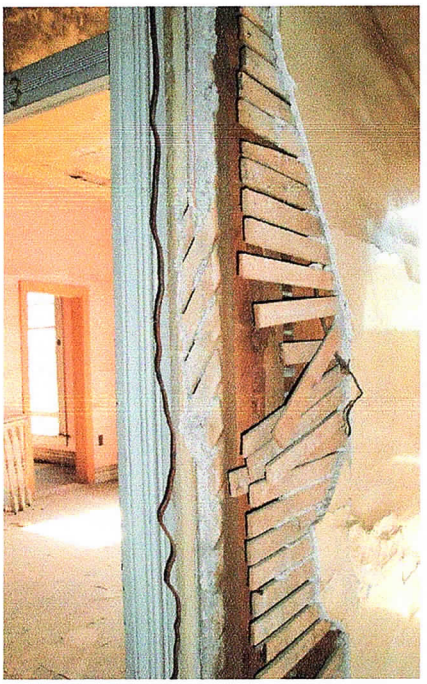
Stone, brick, and framed walls on both floors are plastered. Repair and retention of this original finish is desirable. Because of the various constructions dates, the existing original plaster could be lime-based or gypsum-based. This information may be important to determine appopriate repair techniques.

After the structural remediation is complete, including the stabilization and leveling of the second floor plane, a survey of the condition of all of the walls would clarify the extent and nature of repairs to bring each wall surface to a sound condition. Some procedures for different repairs are listed here:



Condition of plaster on brick walls, floor finish, and structure on second floor

- Small cracks, delaminations, or holes may be filled with compatible materials; areas may need to be widened for better adhesion; adding lath or fiberglass mesh may be warranted; building the surface with several coats is usually desirable;
- Sound but uneven surfaces from previous patching may be "canvassed" with fabric, then papered with typical turn-of-the-twentieth-century design material.
- Unrepairable, or missing plaster surfaces A) may be replastered using similar material and techniques as the original construction, reusing existing wood lath, new metal lath, or rock lath; B) may be refinished with a veneer plaster system. This may be best suited for perimeter walls that have been extensively damaged due to roof failure: furring channels are fastened to the brick or stone surface, creating an insulating air space between the channels.



Exposed wall construction on the second floor

Surfaces of repaired or new plaster must preserve the relationship at architectural detailing adjacent or contained in the wall surface. For example, plaster abutting door casings, window trim, corner guards, and floor base molding should retain the same amount of offset between the two surfaces as the original condition.

Ceilings

Little of the original finish — plaster on wood lath — remains in the building. All existing ceiling finishes are in poor condition. The exposure of the floor/ceiling framing is an opportunity to address thermal issues. The installation of high R-value insulation in this space is an effective way to improve energy efficiency, while having little effect on the historic fabric and character of the structure.

Installing new finishes that approximate the finished qualities of the original plaster is desirable. They are listed below, beginning with the most preferred:

- Two coat plaster over rock lath
- Veneer plaster
- Drywall

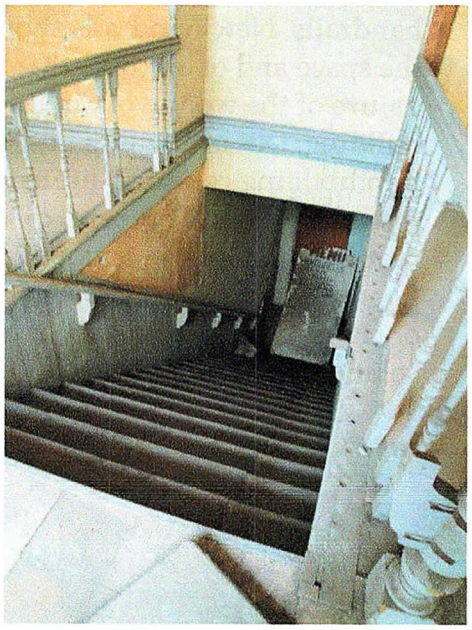


Second floor exposed ceiling structure

Interior Woodwork

The level of architectural detailing of the Rawlins Building is a testament to the craftsmanship of the period, in general, and to the creators of this structure, in particular. The first floor detailing is simple, but handsome, and well constructed. Although a fair amount of it has been removed or water damaged, the pieces that remain intact are in good condition. Detailing on the second floor is more extensive and more decorative than the first floor. Much of it is present and would be able to be repaired or replicated by a skilled finish carpenter.

Elements (such as panel doors, individual pieces of molding, nosing, sash, trim, etc.) which are beyond reasonable repair, may be replaced with new material that matches the original shape and profile exactly. The use of new material to fill gaps, such as from hardware removal or small areas of deterioration is acceptable. Small areas of rot may be strengthened and filled with a consolidant provided the product has a proven record of performance (such as Abatron) and it is compatible with the surrounding historic material, according to the manufacturer's recommendations. Missing elements, such as casing, may be recreated using patterns from other intact units.



Top: Main stairwell showing finish conditions and detailing

Bottom: Main stairwell balustrade



Preparation for new finishes should be as gentle as possible. Avoid sanding that removes excessive historic material or distorts surfaces. Avoid high pressure water that would penetrate and swell wood elements. Do not sandblast. Methods should be tested and evaluated on small, inconspicuous areas before proceeding to wide spread use.

Staircases

The staircases, especially the front one, are character defining features of the Rawlins Building. Reuse and modification of these elements will be closely tied to a new use and building and life safety code requirements. Ideally, the front stair would remain open to the public atrium of the second floor.

At the front stair, plaster and bead board wall finishes should be retained and repaired in place. Replacement of worn treads should match the original design exactly. The balustrade and side handrails should be repaired and reused. Missing sections may be recreated from extant original elements. The balustrade surrounding the open stair may require additional height. An option to achieve this is to construct a low cheek wall at the sides and reinstall the balustrade as a component on top of the wall. Other solutions may be acceptable.

The rear stairs will require close examination in a reuse scheme. Minimally, they will require side handrails. New handrails should be scaled to match the space and of a profile that reflects the refined nature of the woodwork in this section of the building. Doors opening into the back stairwells may be a building code and life safety issue: acceptable modifications will depend directly on those requirements. Some options may include removing the doors altogether and repairing the casing as necessary, or changing the door swing into the atrium. Other solutions may be acceptable.



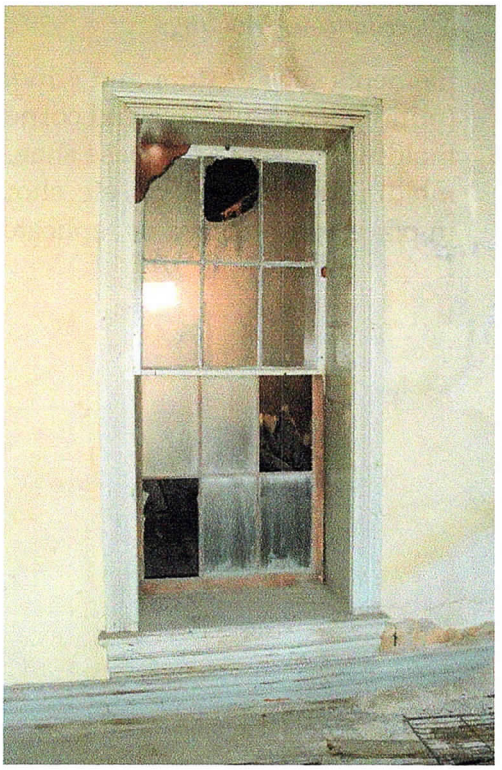
Rear stairwell showing finish condition and inswinging door

Interior Doors and Other Openings

On the first level the interior openings (windows and doors into the rear addition) should be maintained. A couple of the window openings are nearly complete, including sash. Consider repairing these to a near original condition. If visual privacy between the front and rear space is required, glazing may be painted or a frame with opaque material could be set into the recess on the west side. Other options may be explored. The cased trim of the other windows and the two doors should be retained. In the case of the windows, the openings may be filled with panels, if warranted. The two door openings are more challenging because of the change in floor elevation in this area. Retaining the cased openings without doors is acceptable.

All openings in the second floor atrium perimeter wall should remain in place. The majority of the door/transom assemblies of the second floor do not operate properly probably due to water damage and floor deflection. Hopefully, the remediation of the structural system will begin to correct this problem. The assemblies that will continue to be used as access should be repaired to a sound and operable condition. Units that may be extraneous to the new occupancy could remain in place and be fastened closed. A less desirable solution is for the unit and casing to remain in place and be covered on the interior (opposite the atrium) side. New occupancy will require adjustments to the wall locations within the perimeter rooms. It is desirable that new floor plans retain as many of the walls and openings intact as possible.

The retention of transom and borrowed light units is highly desirable. Life safety requirements of the new re-use will dictate how, or if, these elements would remain. This must be determined after consultation with code officials and design professionals.



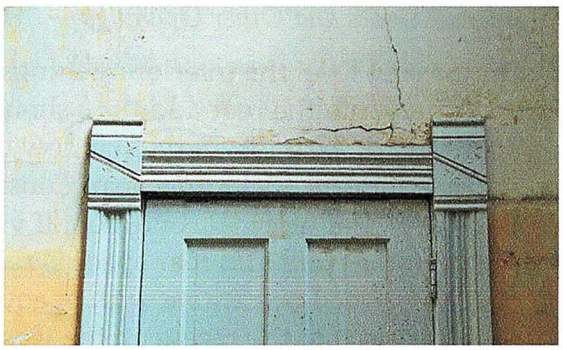


Top: First floor interior window with pilaster cased trim, sill, and apron

Bottom: Typical cased openings at second floor atrium

Miscellaneous Moldings

Elements such as door and window casings, (plinth blocks, pilaster and corner block molding), baseboards, base shoe, ceiling molding, corner guards, etc. should be retained in place and repaired or replicated, if necessary.





Top: Corner block molding and pilaster casing at doorway, second floor

Middle: Floor baseboard and corner guard, second floor

Bottom: Floor baseboard, plinth block, and pilaster casing at doorway, second floor



ENVIRONMENTAL SYSTEMS

The Rawlins Building will require new power, lighting, plumbing, heating, and cooling systems. The size, amount, and location of ducting and conduit would depend on the new plan and occupancy of the building. The following are some factors to consider during the design and installation of these building components:

- Run lines together to minimize locations of new components and equipment;
- The building's original character is a finished one. Do not expose system components to suggest a "warehouse" appearance. Conceal components in soffits or within other constructions. Study areas where new system construction would meet original components, especially at the storefront;
- Run lines concealed through ceiling, floor, and wall spaces when possible;
- Because of the volume of the ground floor, explore a radiant system for a heating solution;
- New fixtures, such as lights or heating elements, should complement the original character of the building. They do not have to replicate units of the original periods of construction.

Rooftop units, equipment, and ductwork would be discouraged. These elements would be highly visible because of the configuration of the roof structure (gable with hips). Use of the attic space for units or equipment would depend on structural capability and life safety and building code considerations. New construction (such as equipment screening) should complement the character of the historic structure, yet be distinguishable from the original building envelope.

RESOURCES

Secretary of the Interior's *Standards for Rehabilitation*

A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

National Park Service Preservation Briefs www.nps.gov/tps/how-to-preserve/briefs.htm:

#1 Cleaning and Water-Repellent Treatments for Historic Masonry Buildings www.nps.gov/tps/how-to-preserve/briefs/1-cleaning-water-repellent.htm

#2 Repointing Mortar Joints in Historic Masonry Buildings www.nps.gov/tps/How-to-preserve/briefs/2-repoint-mortar-joints.htm

#3 Improving Energy Efficiency in Historic Buildings www.nps.gov/tps/How-to-preserve/briefs/3-improve-energy-efficiency.htm

#4 Roofing for Historic Buildings www.nps.gov/tps/how-to-preserve/briefs/4-roofing.htm

#6 Dangers of Abrasive Cleaning to Historic Buildings www.nps.gov/tps/how-to-preserve/briefs/6-dangers-abrasive-cleaning.htm

#9 The Repair of Historic Wooden Windows www.nps.gov/tps/How-to-preserve/briefs/9-wooden-windows.htm

#11 Rehabilitating Historic Storefronts www.nps.gov/tps/How-to-preserve/briefs/11-storefronts.htm

#16 The Use of Substitute Materials on Historic Building Exteriors www.nps.gov/tps/How-to-preserve/briefs/16-substitute-materials.htm

#18 Rehabilitating Interiors in Historic Buildings—Identifying Character-Defining Elements www.nps.gov/tps/How-to-preserve/briefs/18-rehabilitating-interiors.htm

#21 Repairing Historic Flat Plaster—Walls and Ceilings www.nps.gov/tps/How-to-preserve/briefs/21-flat-plaster.htm

#24 Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches www.nps.gov/tps/How-to-preserve/briefs/24-heat-vent-cool.htm

#25 The Preservation of Historic Signs www.nps.gov/tps/how-to-preserve/briefs/25-signs.htm

#28 Painting Historic interiors www.nps.gov/tps/how-to-preserve/briefs/28-painting-interiors.htm

#31 Mothballing Historic Buildings www.nps.gov/tps/how-to-preserve/briefs/31-mothballing.htm

#32 Making Historic Properties Accessible www.nps.gov/tps/how-to-preserve/briefs/32-accessibility.htm

#37 Appropriate Methods for Reducing Lead paint Hazards in Historic housing www.nps.gov/tps/how-to-preserve/briefs/37-lead-paint-hazards.htm

#47 Maintaing the Exterior of Small and Medium Sized Historic Buildings www.nps.gov/tps/how-to-preserve/briefs/37-lead-paint-hazards.htm

Historic storefronts

Mesker Bros. http://meskerbrothers.wordpress.com/

http://www.preservationnation.org/main-street/training/conference/2013neworleans/program-and-schedule/handouts/13-Handouts-SUN-Storefront-Design.pdf

http://www.illinois.gov/ihpa/Preserve/Documents/Storefronts-Shopfronts-Facades.pdf

Brick signs http://www.fcgov.com/historicpreservation/ghostsigns.php

Stone and mortar repair

Cathedral Stone Products http://www.cathedralstone.com/

http://www.mortaranalysis.biz/

www.limeworks.us/SendSample.html

Molding and detailing

http://www.thehardwoodcompany.com/vocab-moulding.htm

http://www.do-it-yourself-help.com/wood_molding_profiles.html

http://www.lowes.com/cd_moulding+glossary_1324304642_

PROJECT MANUAL
Project No. 1416

Rawlins Building Stabilizations

529 & 531 Railroad Avenue
Las Vegas, New Mexico

Contact:

Jonathan Whitten
Architect

Jonathan Whitten + Associates

1017 Seventh Street
Las Vegas, NM
505.795.8376

September, 2014

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SECTION 01 3300

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
1. Submittal procedures.
2. Proposed Products list.
3. Submittal schedule.
4. Shop Drawings.
5. Product Data.
6. Samples.

B. Related Sections:
1. Section 01 4000 - Quality Requirements.

1.2 SUBMITTAL PROCEDURES

A. Number each submittal with Project Manual section number and a sequential number within each section. Number resubmittals with original number and an alphabetic suffix.

B. Identify Project, Contractor, Subcontractor or supplier, pertinent Drawing sheet and detail numbers, and specification Section number, as appropriate.

C. Apply Contractor's stamp, signed or initialed certifying that:
1. Submittal was reviewed.
2. Products, field dimensions, and adjacent construction have been verified.
3. Information has been coordinated with requirements of Work and Contract Documents.

D. Schedule submittals to expedite the Project, and deliver to Architect. Coordinate submittal of related items.

E. For each submittal, allow 14 days for Architect's review, excluding delivery time to and from Contractor.

F. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of completed Work.

G. Revise and resubmit submittals when required; identify all changes made since previous submittal.

H. Distribute copies of reviewed submittals to concerned parties and to Project Record Documents file. Instruct parties to promptly report any inability to comply with provisions.

1.3 PROPOSED PRODUCTS LIST

A. Within 15 days after date of Notice to Proceed, submit a complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.

B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

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C. Submit one copy.

1.4 SHOP DRAWINGS

A. Present information in clear and thorough manner.

B. Identify details by reference to sheet and detail numbers or room number shown on Drawings.

C. Submit two copies of each sheet. Architect will return one copy to Contractor for printing and distribution.

1.5 PRODUCT DATA

A. Mark each copy to identify applicable products, models, options, and other data.

B. Supplement manufacturers' standard data to provide information unique to this Project.

C. Submit two copies of each sheet. Architect will return one copy to Contractor for printing and distribution.

1.6 SAMPLES

A. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

B. Where so indicated, submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for Architect's selection.

C. Include identification on each sample, with full Project information.

D. Unless otherwise specified in individual specifications, submit two of each sample.

E. Architect will notify Contractor of approval or rejection of samples, or of selection of color, texture, or pattern if full range is submitted.

END OF SECTION

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SECTION 07 41 13 - METAL ROOF PANELS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Architectural metal roof panels, including trim accessories.

1.2 REFERENCES

A. General: Standards listed by reference form a part of this specification section. Standards listed are identified by issuing authority, abbreviation, designation number, title or other designation. Standards subsequently referenced in this Section are referred to by issuing authority abbreviation and standard designation.

B. ASTM International:

1. ASTM A 792 - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
2. ASTM D 2244 - Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates.
3. ASTM D 4214 - Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films.

C. Underwriters Laboratories (UL):

1. UL 263 - Fire Tests of Building Construction and Materials.
2. UL 580 - Tests For Uplift Resistance of Roof Assemblies.
3. UL 790 - Standard Test Methods for Fire Tests of Roof Coverings.
4. UL 2218 - Impact Resistance of Prepared Roof Covering Materials.

D. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA): "Architectural Sheet Metal Manual."

1.3 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meetings: Conduct preinstallation meeting to clarify Project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements.

1.4 ACTION SUBMITTALS

A. Product Technical Data: For each type of product required, including manufacturer's preparation recommendations, storage and handling requirements, and recommended installation methods.

B. Shop Drawings: Showing methods of installation, plans, sections, elevations and details of roof and wall panels, specified loads, flashings, roof curbs, vents, sealants, interfaces with all materials not supplied by the metal panel system manufacturer, and identification of proposed component parts and their finishes. Do not proceed with fabrication prior to approval of shop drawings.

C. Samples: Selection and verification samples for finishes, colors and textures. Submit two complete sample sets of each type of panel, trim, clip and fastener required.

D. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics, criteria and physical requirements.

E. Test and Evaluation Reports: Showing compliance with specified performance characteristics and physical properties.

F. Qualifications Statements: For manufacturer and installer.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For installed products including maintenance methods and precautions against cleaning materials and methods detrimental to finishes and performance.

B. Warranty: Warranty documents required in this section.

1.6 MAINTENANCE MATERIAL

A. Extra Materials: Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Provider of advanced installer training.
2. Minimum of ten years experience in manufacturing metal roof systems.

3. Provider of products produced in a permanent factory environment with fixed roll-forming equipment.

B. Installer Qualifications:

1. At least five years experience in the installation of architectural metal roof panels.
2. Experience on at least five projects of similar size, type and complexity as this Project that have been in service for a minimum of two years with satisfactory performance of the roof system.
3. Employer of workers for this Project who are competent in techniques required by manufacturer for installation indicated and who shall be supervised at all times when material is being installed.

1.8 DELIVERY, STORAGE AND HANDLING

A. General: Comply with manufacturer's current printed product storage recommendations.

B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

C. Storage: Store materials above ground, under waterproof covering, protected from exposure to harmful weather conditions and at temperature and humidity conditions recommended by manufacturer. Provide proper ventilation of metal panel system to prevent condensation build-up between each panel and trim or flashing component. Tilt stack to drain in wet conditions. Remove strippable plastic film before storage under high-heat conditions. Store products in manufacturer's unopened packaging until just prior to installation.

D. Handling: Exercise caution in unloading and handling metal panel system to prevent bending, warping, twisting and surface damage.

1.9 WARRANTY

A. Special Exposed Panel Finish Warranty: Manufacturer's standard form PVDF (Fluorocarbon) System Warranty for film integrity, chalk rating and fade rating in which manufacturer agrees to repair or replace panels that show evidence of deterioration within specified warranty period.

1. Deterioration shall include but is not limited to:

a. Color fading of more than 5 Hunter units when tested according to ASTM D 2244.

b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
c. Cracking, checking, peeling or failure of paint to adhere to bare metal.

2. Warranty Period: Film integrity for 45 years and chalk and fade rating for 35 years from date of Substantial Completion.
3. Manufacturer's warranty may exclude surface deterioration due to physical damage and exposure to salt air environments.

B. Special Exposed Panel Finish Warranty: Manufacturer's standard form proprietary two coat roll coated System Warranty for film integrity, chalk rating and fade rating in which manufacturer agrees to repair or replace panels that show evidence of deterioration within specified warranty period.

1. Deterioration shall include but is not limited to:

a. Color fading of more than 5 Hunter units on vertical applications or more than 6 Hunter units on non-vertical applications when tested according to ASTM D 2244.
b. Chalking in excess of a No. 8 rating on vertical applications or a No. 7 rating on non-vertical applications when tested according to ASTM D 4214.
c. Cracking, checking, peeling or failure of paint to adhere to bare metal.
d. Perforation.

2. Warranty Period: Film integrity for 45 years, chalk and fade rating for 30 years, and perforation for 25 years from date of Substantial Completion.
3. Manufacturer's warranty may exclude surface deterioration due to physical damage and exposure to salt air environments.

C. Special Warranty: Installer's standard form in which installer agrees to repair or replace standing seam panels that fail due to poor workmanship or faulty installation within the specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

PART 2 – PRODUCTS

2.1 ARCHITECTURAL METAL ROOF PANELS

A. Basis of Design Product: Subject to compliance with requirements provide Metal Sales Manufacturing Corporation; 1" Mini-Batten.

B. Substitution Limitations: Or approved equal.

C. Product Options:

1. Panel Coverage: 16 inches.
2. Rib Height: 1 inch (25.4 mm).
3. Material: Aluminum-zinc alloy-coated steel sheet, ASTM A 792,AZ50 coating designation, structural quality, Grade 50,0.0236-inch (0.60-mm) minimum thickness.
4. Minimum Roof Slope Capability: 3:12.
5. Side Lap: Snap seamed.
6. Attachment: Concealed clip designed for thermal movement.
7. Application: Designed for application over solid substrate.
8. Surface Finish: PVDF (Kynar 500 or Hylar 5000)
9. Color: As selected by Architect from manufacturer's standard colors.
10. Fire Resistance Rating: Comply with UL 263 and UL 790 Class A Fire Resistance Ratings.
11. Impact Resistance: Comply with UL 2218 Class 4.
12. Wind Uplift Resistance: Comply with UL 580, Class 90 Wind Uplift, Construction #397, 397A, and 430.

2.2 FIELD-INSTALLED THERMAL INSULATION

A. N/A

2.3 UNDERLAYMENT MATERIALS

A. N/A

2.4 SUBSTRATE BOARDS

A. N/A

2.5 ACCESSORIES

A. Products:

1. Basis of Design Product: Subject to compliance with requirements provide Metal Sales Manufacturing Corporation
2. Color: As selected by Architect from manufacturer's full product range.

2.6 SOURCE QUALITY CONTROL

A. Source: Obtain architectural metal roof panels, trim and other accessories from a single manufacturer.

B. Quality Control: Obtain architectural metal roof panels, trim and other accessories from a manufacturer capable of providing on-site technical support and installation assistance.

PART 3 - EXECUTION

3.3 UNDERLAYMENT INSTALLATION

A. Self-Adhering Sheet Underlayment: Grace Ice & Water Shield.

B. Felt Underlayment: Titanium roofing underlayment.

3.4 THERMAL INSULATION INSTALLATION

A. N/A

3.5 ARCHITECTURAL METAL ROOF PANEL INSTALLATION

A. General: Comply with panel manufacturer's installation instructions including but not limited to special techniques, interface with other work, and integration of systems.

B. Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and using proper fasteners as recommended by panel manufacturer.

3.6 ACCESSORY INSTALLATION

A. General: Install accessories using techniques recommended by manufacturer and which will assure positive anchorage to building and weather tight mounting. Provide for thermal movement. Coordinate installation with flashings and other components.

B. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and the SMACNA "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and install units to true level. Install work with laps, joints, and seams that will be permanently watertight.

3.8 CLEANING

A. Remove temporary coverings and protection of adjacent work areas.

B. Repair or replace any installed products that have been damaged.

C. Clean installed panels in accordance with manufacturer's instructions prior to Owner's acceptance.

D. Remove and lawfully dispose of construction debris from Project site.

3.9 PROTECTION

A. Protect installed product and finish surfaces from damage during construction.

END OF SECTION 07 41 13 - METAL ROOF PANELS

SECTION 08625
METAL FRAMED SKYLIGHT

PART 1 GENERAL

1.01 SECTION INCLUDES:

A. Engineering, preparation of fabrication drawings and structural calculations for the entire skylight system.

B. Fabrication and installation of extruded aluminum skylight assembly.

C. Finish of skylight assembly and related flashings

D. Gasket and sealants

E. Skylight glass and glazing

F. Skylight related flashings

1.02 RELATED SECTIONS

A. NA

1.03 REFERENCED

A. American Architectural Manufacturers Association (AAMA):

1.	501.1:	Standard Test Method for Metal Curtain Walls for Water Penetration Using Dynamic Pressure
2.	501.2:	Field Check of Metal Curtain Walls for Water Leakage
3.	501.3:	Field Check of Water Penetration Through Installed Exterior Windows, Curtain Walls and Doors by Uniform Air Pressure Difference
4.	603.8:	Performance Requirements and Test Procedures for Pigmented Organic Coatings on Extruded Aluminum
5.	605.2:	Specifications for High Performance Organic Coatings on Architectural Extrusions and Panels
6.	606.1:	Voluntary Guide Specification and Inspection Methods for Integral Color Anodic Finishes for Architectural Aluminum
7.	607.1:	Voluntary Guide Specifications and Inspection Methods for Clear Anodize Finishes for Architectural Aluminum

8. ***** AAMA Sloped Glazing Literature

B. American Society for Testing and Materials (ASTM):

1. A193: Standard Specifications for Alloy-Steel and Stainless Steel Materials for High Temperature Service

2. A307: Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength

3. B209: Specification for Aluminum and Aluminum-Alloy Sheet and Plate

4. B211: Specification for Aluminum-Alloy Bar, Rod, and Wire

5. B221: Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes

6. B316: Specification for Aluminum and Aluminum-Alloy Rivet and Cold-Heading Wire and Rods

7. C719: Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants Under Cycle Movement

8. C794: Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants

9. C1036: Specification for Flat Glass

10. C1048: Specification for Heat-Treated Flat Glass-Kind HS, Kind FT Coated and Uncoated Glass

11. D395: Test Methods for Rubber-Property - Compression Set

12. D412: Test Methods for Rubber Properties in Tension

13. D1171: Test Method for Rubber Deterioration - Surface Ozone Cracking Outdoors or Chamber (Triangular Specimens)

14. D2240: Test Method for Rubber Property - Durometer Hardness

15. E283: Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference

16. E330: Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference

17. E331: Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference

18. E773: Test Method for Seal Durability of Sealed Insulating Glass Units

19. E774: Specification for Sealed Insulating Glass Units

20. E783: Method for Field Measurement of Air Leakage Through Installed Exterior Windows

C. American National Standards Institute (ANSI): Z 97.1-1948-Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test

D. Flat Glass Manufacturers Association (FGMA): Glazing Manual

E. Insulating Glass Certification Council (IGCC): Classification of Insulating Glass Units

1.04 SYSTEM DESCRIPTION

A. A complete skylight assembly that is weather tight and air tight conforming to the performance requirements in this section.

B. Performance Requirements

1. Structural Members shall be of sufficient size to support design loads as prescribed by government building codes.

2. Deflection of skylight framing members shall not exceed L/175 when subject to a uniform load deflection test in accordance with ASTM E330, and per the above specified loads.

3. Water Penetration: No water penetration shall occur when system is tested in accordance with ASTM E331. Water penetration is defined as the appearance of uncontrolled water other than condensation on the interior surface of any part of the skylight.
   a. Drain to the exterior all water entering at joints or glazing reveals as well as all condensation occurring within unit construction.

4. Air Infiltration: Air infiltration through the skylight assembly when tested in accordance with ASTM E283 shall not exceed 0.06 cubic feet per minute per square foot of fixed area.

5. Thermal Movement: Skylight assembly shall be so designed and anchored that there will be no objectionable distortion or stresses in fastening and joinery due to expansion and contraction when subjected to temperature variance.

1.05 QUALITY ASSURANCE

A. The work in this section including design, engineering, fabrication and glazing and erection shall be the responsibility of the skylight manufacturer. The skylight manufacturer shall have been regularly engaged in the specialized type of work for at least 10 years and have satisfactorily completed projects of a similar scope.

1.06 SUBMITTALS

A. Submit full scale shop drawings indicating methods of construction. location and spacing of anchorage, joinery, finishes, size, shape and thickness, alloy of framing members glazing materials and relationships to surrounding work.
[ ] Sepias shall be submitted
[ ] Blue lines shall be submitted

1.08 WARRANTY

A. Submit manufacturer's warranty that the skylight system was furnished and installed in accordance with the contract documents.

B. Certify that skylight system will remain free from defects in material and workmanship and remain free of leakage for a period of 10 years from the date of substantial completion.

C. Glass warranty, as furnished by the supplier, shall include defective materials, delamination, seal failure and defects in manufacture.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Contract documents are based on Bristolite Skylights, Inc. Local supplier to be Sky Design Concepts, 602-276-5001.

B. Substitution will be considered under provisions of section only when the following conditions have been met:

1. Products of other manufacturers must be pre-qualified to bid not less than 10 days prior to bid date.

2.02 MATERIALS

A. Extruded aluminum framing members shall be 6063-T5, 6061-T6, or 6063-T6 per ASTM B221.

B. Flashing, trim, closures and other accessory items shall be a minimum .040" thick aluminum.

C. Glazing Gaskets: Shall be dense EPDM, 50 durometer per ASTM C-509.

D. Setting Blocks: Compatible with glass edge seals; shall conform to ASTM D2240 Type A 80 durometer.

E. Fasteners:
1. Exterior fasteners used as cap retainers shall be 300 series stainless steel per ASTM A 193 B8.
2. Framework connections shall be cadmium plated steel or as required by connection.

F. Finish: [Standard] color coat to following specification.

2. Anodic Coatings: a) AAMA 607.1 Class I Dark Bronze Anodize A41

G. Glass: The following is a list of glass make-ups. Actual glass composition shall be chosen and listed here.

3. Insulating units:
a. 1'-1/16" consisting of 1/4" [tempered] clear low-e exterior
lite, 1/2" A.S. and 5/16" clear annealed laminated interior lite with .030 PVB interlayer.

H. Sealants: Compatible with all substrates and applied in accordance with manufacturer's recommendations.

2.03 FABRICATION

A. Skylights shall be factory fabricated and preassembled in largest size assemblies consistent with economic considerations for shipping to and handling at the job site.

B. All cap retainers shall be attached using stainless steel fasteners. These fasteners shall be designed and located such that all glazing strips are compressed to provide a uniform compression seal. Fasteners shall be located at 12" O.C. or less.

C. All clips for the attachment of the rafter bars shall be of aluminum or stainless steel and by shop-riveting, bolting or welding to the rafter bars attain fully rated structural loading

D. All welding shall be by the heliarc process. All exposed welds to be dressed where practical.

E. Waterproofing shall not be reliant on additional continuous exterior silicone sealant beads. Horizontal flush butt joints may rely on a continuous silicone seal.

F. Silicone or neoprene setting blocks shall be used for the support of the glass and shall be sized and located in accordance with the glass manufacturer's recommendations. At no point shall the glass come into contact with metal parts of the skylight.

G. Skylights shall have a properly designed weep system for drainage to the exterior without excessive air infiltration.

PART 3 EXECUTION

3.01 EXAMINATION

A. Prior to beginning work of this section, an authorized representative shall examine the associated support structure to determine that it is properly prepared and ready to receive the skylight work included herein. No installation shall proceed until any discrepancies have been resolved.

3.02 PREPARATION

A. Aluminum surfaces in contact with masonry, concrete or dissimilar materials if not organically coated shall be given a heavy coat of zinc chromate or bituminous paint.

3.03 INSTALLATION

A. Skylight installation shall be the sole responsibility of the skylight manufacturer in strict accordance with the approved shop drawings.

B. Install skylights plumb, true without warping or racking of panels.

C. Anchor system in strict accordance with approved shop drawings.

D. During erection, provide for thermal movement with a minimum ambient air temperature shift of 100° Fahrenheit without creating undue stresses.

E. Apply sealant where indicated on shop drawings. Before application, clean surfaces as recommended by manufacturer.

3.04 TOLERANCES

A. All parts of the work, when completed shall be within the following tolerances:

1. Maximum variation from plane or location shown on approved shop drawings: 1/8" per 12 feet of length or 1/2" in total length.
2. Maximum offset from true alignment between two members abutting end-to-end, edge-to-edge in line or separated by less that 3": 1/32".

3.06 CLEANING AND PROTECTION

A. Glazing panels shall be left in scratch free condition inside and out.

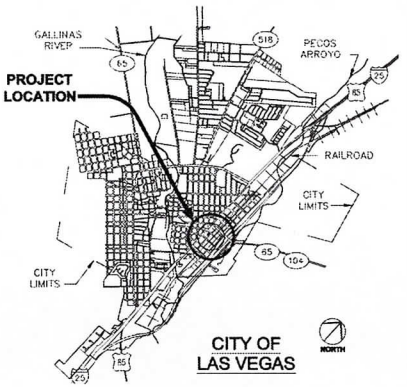
B. Remove all debris created by this work

END OF SECTION
08625

THE RAWLINS BUILDING

Building Stabilization Project
Las Vegas, New Mexico

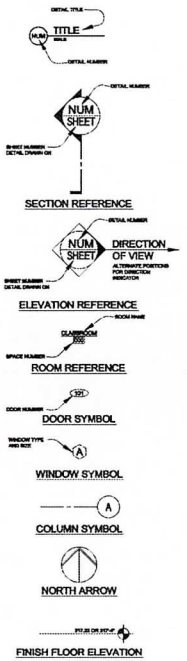
VICINITY MAP
Las Vegas, New Mexico



Rawlins Building
529 & 531 Railroad Avenue
Las Vegas, New Mexico

LEGEND

DETAIL NOTATION



MATERIALS

Plan / Section

- EIFS
- BRICK
- CONCRETE
- CONCRETE MASONRY UNITS
- EARTH
- CAST STONE
- INSULATION, BATT
- INSULATION, RIGID
- METAL, LARGE SCALE
- METAL, SMALL SCALE
- PLYWOOD
- POROUS FILL
- WOOD, FINISHED
- WOOD, ROUGH (CONTINUOUS)
- WOOD, ROUGH (INTERRUPTED)

Elevation

- BRICK
- CERAMIC TILE
- CONCRETE/PLASTER
- RUNNING BOND MASONRY

DRAWING INDEX

ARCHITECTURAL

G 100	GENERAL PROJECT INFORMATION
A 101	EXISTING FLOOR PLANS
A 102	ROOF PLANS
S 101	FOUNDATION & FRAMING PLANS
S 102	FRAMING PLANS
S 501	STRUCTURAL DETAILS

SEPTEMBER 30, 2014

PROJECT NO. 1416

SET NO.

NOTE: IF CLARIFICATION OF DRAWINGS OR DETAILS IS REQUIRED CONTACT ARCHITECT IMMEDIATELY.

NOTE: IF DISCREPENCIES OCCUR BETWEEN DRAWING SHEETS CONTACT ARCHITECT FOR CLARAFICATION.

CODE & BUILDING DATA

1. Building Code: 2009 International Building Code
   2009 International Existing Building Code
   2009 NM Commercial & Residential Building Code
   2009 NM Plumbing and Mechanical Code
   2009 Uniform Mechanical Code
   2009 Uniform Plumbing Code
   2011 NM Electrical Code
   2011 National Electrical Code
   2003 International Fire Code
2. Occupancy: N/A
3. Type of Construction: Type 3
4. Area:

Basement	444 sfg
First Floor	3,866 sfg
Second Floor	3,866 sfg
Total	8,176 sfg

5. Number of Stories: 2
6. Height of Building: 30'-0"
7. Occupant Load: N/A
8. Exiting Calculations: N/A
9. Plumbing Fixtures: N/A

Jonathan Whitten + Associates
1017 Seventh Street Las Vegas, New Mexico
t. 505.795.8376 jwhitten98@msn.com

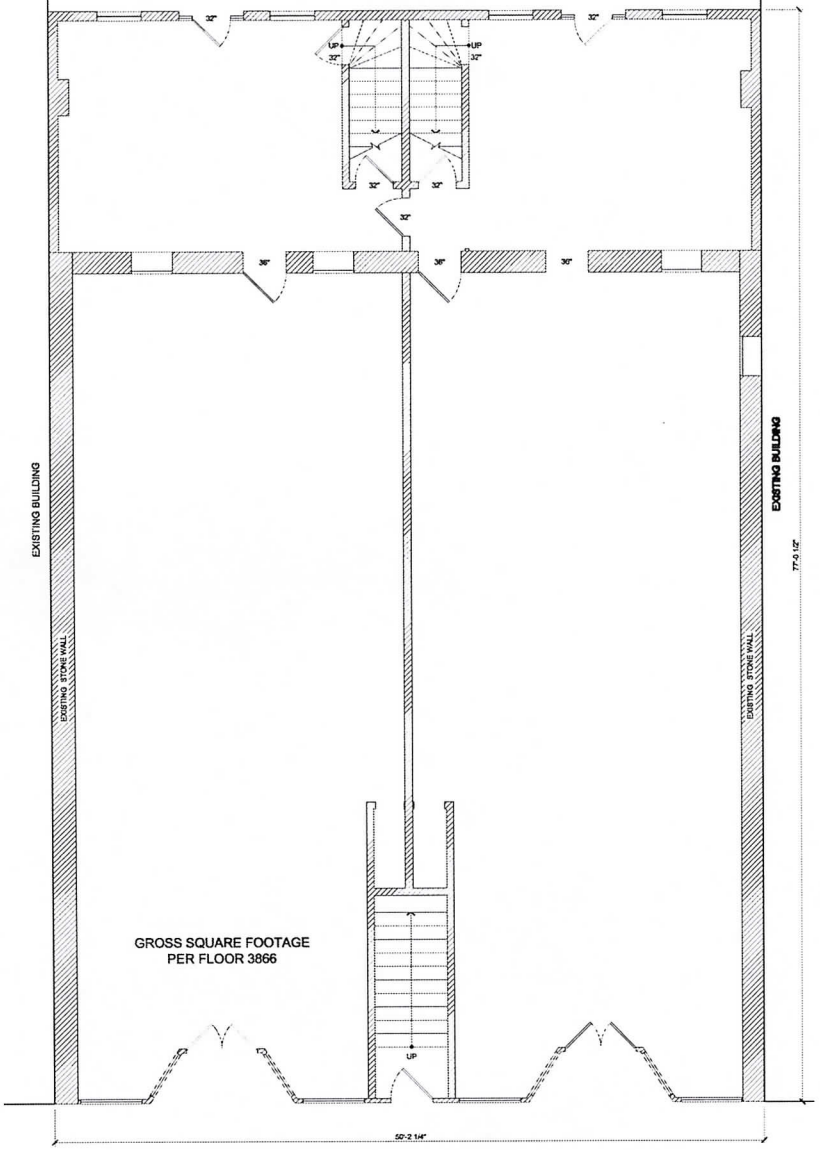
JONATHAN WHITTEN — NM 004175 — 9.30.14 — REGISTERED ARCHITECT — STATE OF NEW MEXICO

RAWLINS BUILDING STABILIZATIONS
529 & 581 Railroad Ave.
for
Tom & Tina Clayton
Las Vegas, New Mexico

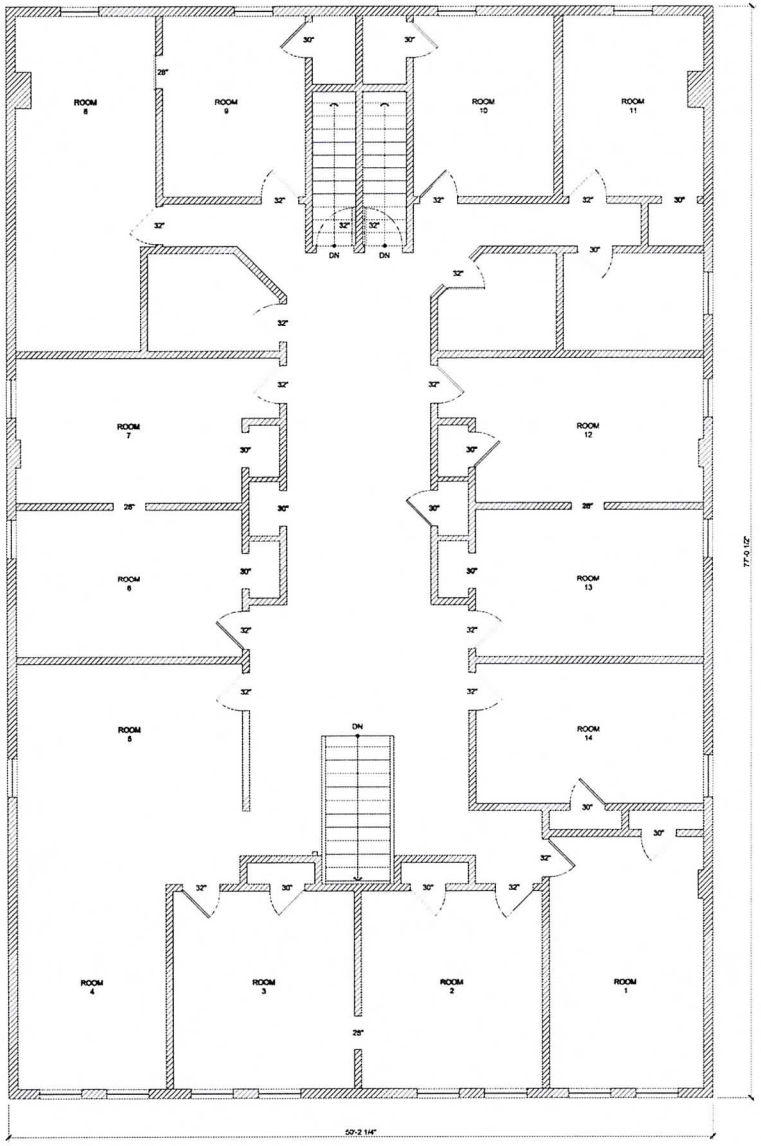
GENERAL PROJECT INFORMATION

REVISIONS

FILE:	
CHECKED: JW	
DRAWN:	
PROJECT NO: 1416	
DATE 9.30.14	
SHEET NO. G100	OF SHEETS



A1 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



A3 SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"

380 Drafting - Denise Heller
HC 88 Box 55 - Rociada, New Mexico
t. 505.454.0217 redheller@aol.com

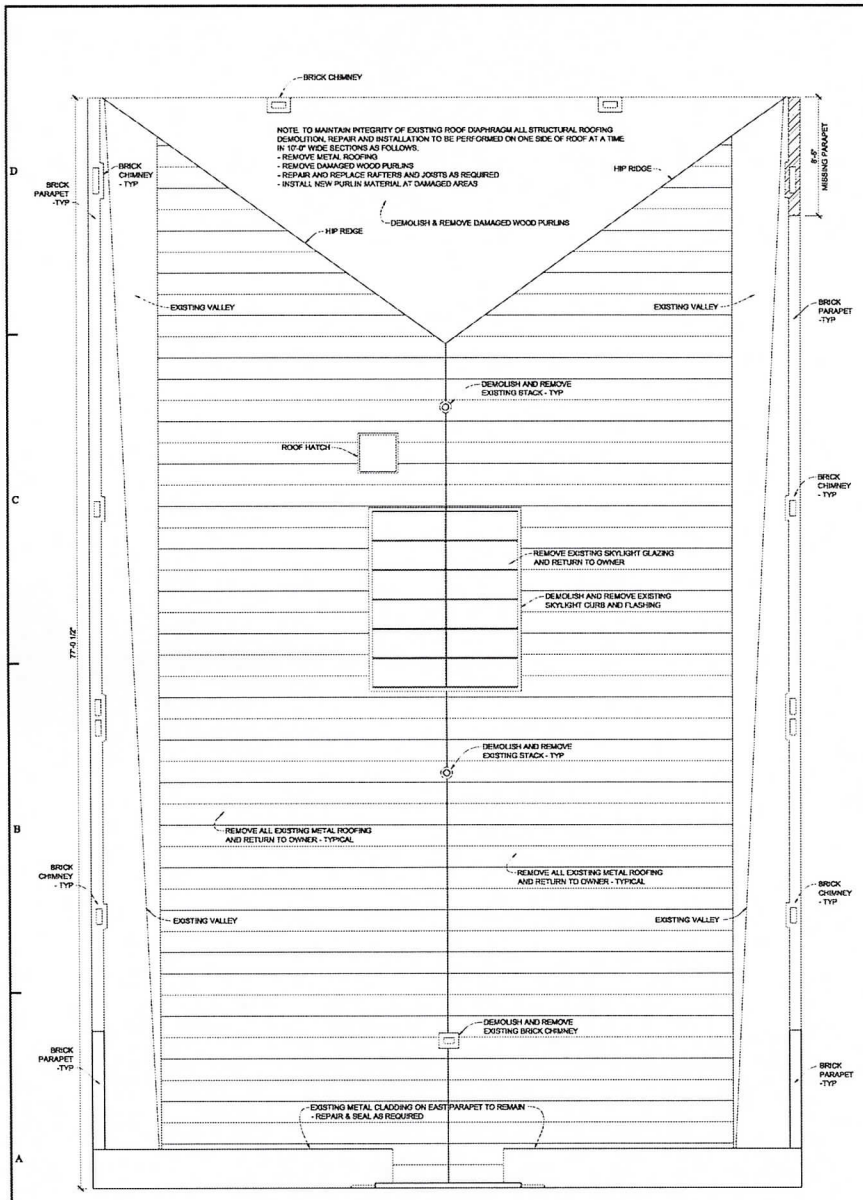
JONATHAN WHITTEN HELLER
NM 05174
8.30.14
STATE OF NEW MEXICO
REGISTERED ARCHITECT

RAWLINS BUILDING STABILIZATIONS
529 & 531 Railroad Ave.
for
Tom & Tina Clayton
Las Vegas, New Mexico

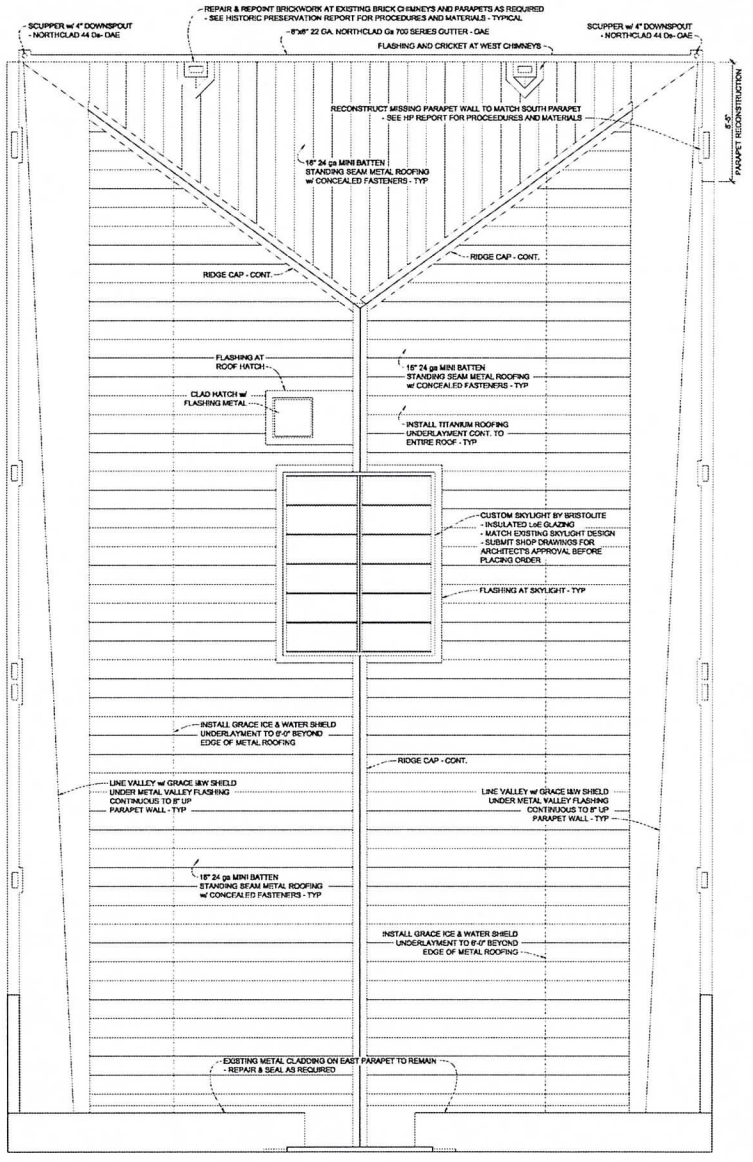
EXISTING FIRST & SECOND FLOOR PLANS

REVISIONS

PROJECT NO: 1416
CHECKED:
DRAWN:
DATE: 8.27.14
SHEET NO. A101
OF SHEETS



A1 EXISTING ROOF PLAN
SCALE: 1/4" = 1'-0"



A4 ROOF PLAN
SCALE: 1/4" = 1'-0"

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1017 Seventh Street Las Vegas, New Mexico
t. 505.795.8376 jwhitten98@msn.com

STATE OF NEW MEXICO
JONATHAN WHITTEN
NO. 004174
9.30.14
REGISTERED ARCHITECT

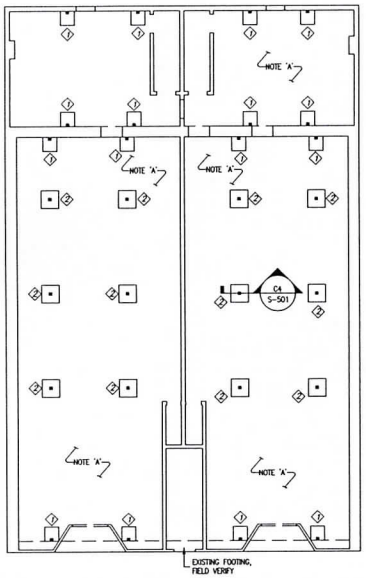
RAWLINS BUILDING STABILIZATIONS
528 & 581 Railroad Ave.
for
Tom & Tina Clayton
Las Vegas, New Mexico

EXISTING ROOF PLAN

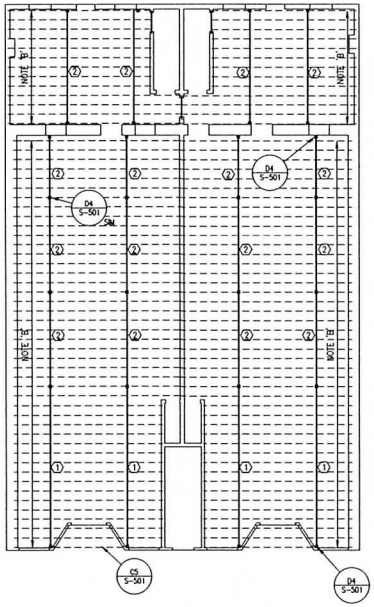
REVISIONS

PROJECT NO: 1416
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DRAWN:
DATE: 9.30.14

SHEET NO. A102
OF SHEETS



FOUNDATION PLAN
SCALE: 1/8"=1'-0" FIN FLR ELEV=



SECOND FLOOR FRAMING PLAN
SCALE: 1/8"=1'-0" FIN FLR ELEV=

GENERAL SHEET NOTES

NOTE 'A'– 4" CONCRETE SLAB ON GRADE W/ #3 @ 16" O.C. EACH WAY. REBAR SHALL BE SUPPORTED WITH 2" CHAIRS.

NOTE 'B'– REMOVE AND REPLACE EXISTING JOISTS WITH 2x6 AT 16" ON CENTER.

CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL DIMENSIONS OF EXISTING BUILDING ELEMENTS PRIOR TO FABRICATION OF CONSTRUCTION SUPPORT ELEMENTS.

CONTRACTOR SHALL PROVIDE SHORING ALL ITEMS UNTIL FINAL CONSTRUCTION SUPPORT ELEMENTS ARE IN PLACE.

KEY NOTES

NOTE: KEY NOTES MAY NOT BE USED ON THIS SHEET

1. W10x30
2. W10x12
3. –
4.
5.
6.
7.
8.
9.
10.

SYMBOLS

■ INDICATES HSS 5x5x1/4 COLUMN, UNLESS NOTED OTHERWISE

FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F1	2'-0"x2'-0"x12"	3-#4 EACH WAY
F2	2'-6"x2'-6"x12"	3-#5 EACH WAY
F3	3'-0"x3'-0"x12"	4-#5 EACH WAY

Hands Engineering, Inc.
Engineers
9315 Prairie Rd Dallas, TX 75238
Phone (303) 423-2882
Fax (303) 423-2883
Email: jason@handsengineering.com

SHEET TITLE: FOUNDATION PLAN

PROJECT: RAWLINS BUILDING
529-531 RAILRIAD AVENUE, LAS VEGAS, NM

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No.	REVISION	BY	APP'VD	DATE

PROJECT: 2014-4267 DESIGN: RHW
DATE: 30 SEP 14 CHECKED: RHW
SCALE: AS NOTED DRAWN: DJH

SHEET No.
S-101
OF ?

GENERAL SHEET NOTES

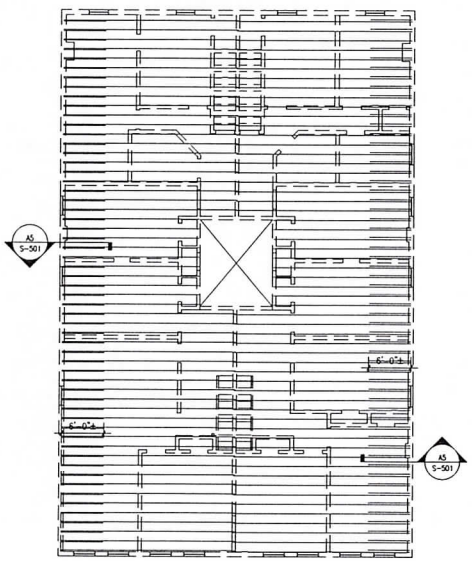
NOTE– REPLACEMENT OF ROOF AND CEILING JOISTS RECOMMENDED TO OCCUR IN SECTIONS NO GREATER THAN 10'-0"

JOISTS SHALL BE INSPECTED FOR DAMAGE. DAMAGED JOISTS SHALL BE CUT BACK 1'-0" BEYOND THE DAMAGE. THE ANTICAPTED LENGTH IS 6'-0"

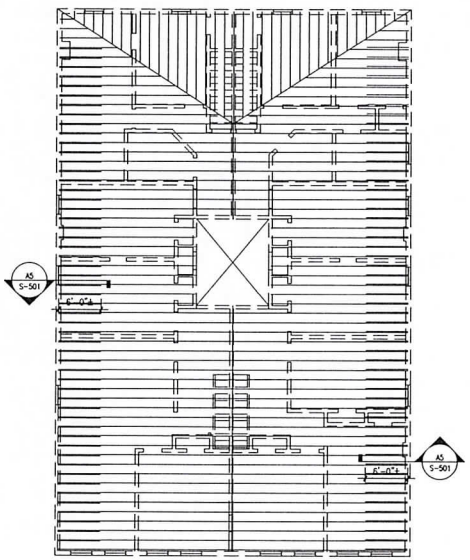
CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL DIMENSIONS OF EXISTING BUILDING ELEMENTS PRIOR TO FABRICATION OF CONSTRUCTION SUPPORT ELEMENTS.

CONTRACTOR SHALL PROVIDE SHORING ALL ITEMS UNTIL FINAL CONSTRUCTION SUPPORT ELEMENTS ARE IN PLACE.

WOOD:	HEM FIR #1 OR BETTER
CONCRETE:	f'c=3000psi
WIDE FLANGE STEEL:	ASTM A992
TUBE STEEL:	ASTM A500 Gr46
OTHER STEEL:	ASTM A36



SECOND FLOOR CEILING PLAN
SCALE: 1/8"=1'-0" FIN FLR ELEV=



ROOF FRAMING PLAN
SCALE: 1/8"=1'-0" FIN FLR ELEV=

Hands Engineering, Inc.

Engineering & Project Management
516 Pecan Drive, Suite A
Las Vegas, NM 87701
Phone (505) 425-3373
Fax (505) 425-4850
Email: jhands@handsengineering.com

SHEET TITLE: ROOF FRAMING PLANS

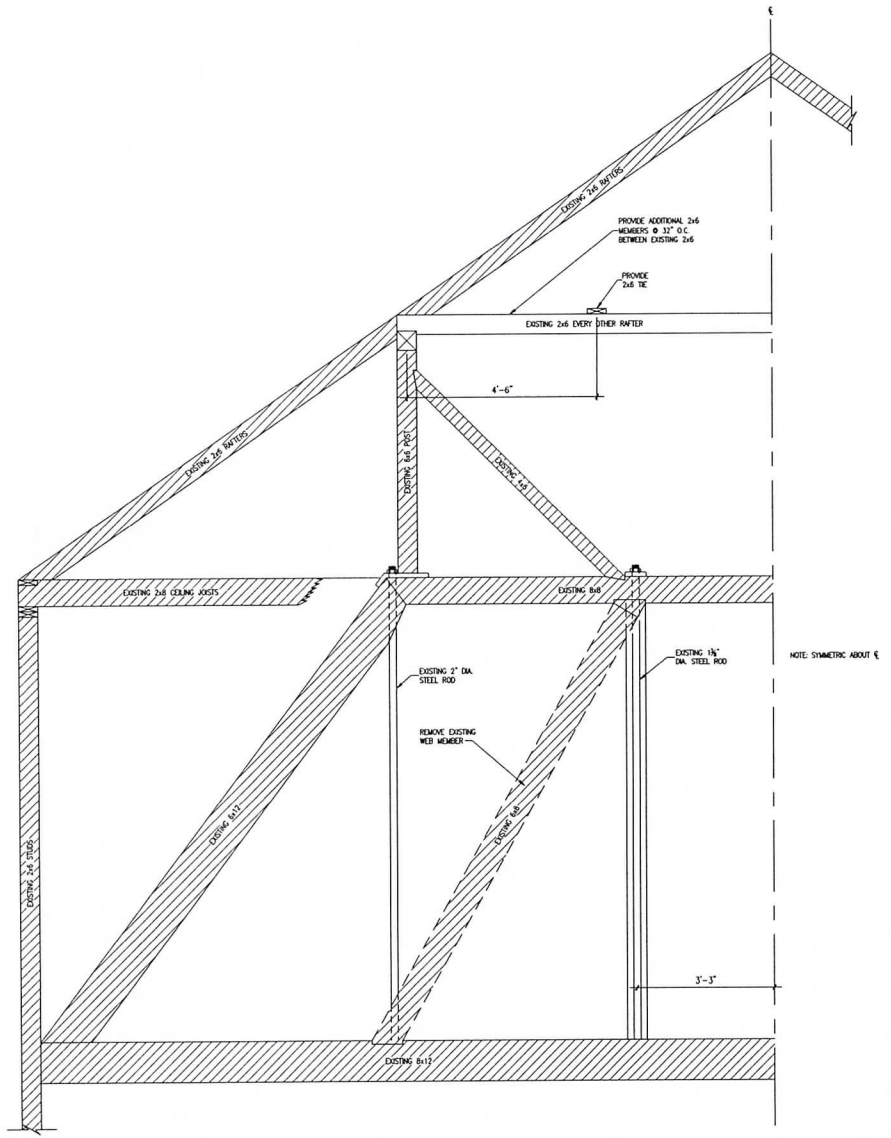
PROJECT: RAWLINS BUILDING
529-531 RAILRIAD AVENUE, LAS VEGAS, NM

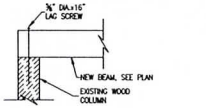
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No.	REVISION	BY	APP'D	DATE

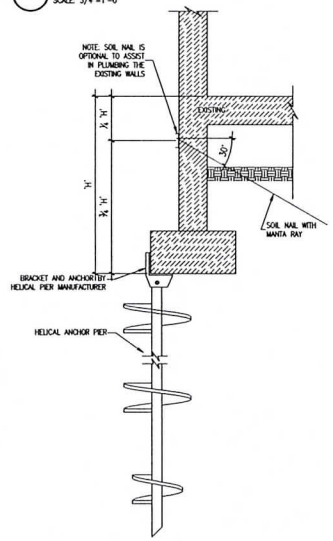
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DATE: 30 SEP 14 CHECKED: RWK
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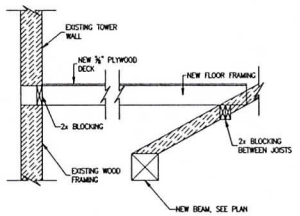
SHEET No.
S-102
OF ?





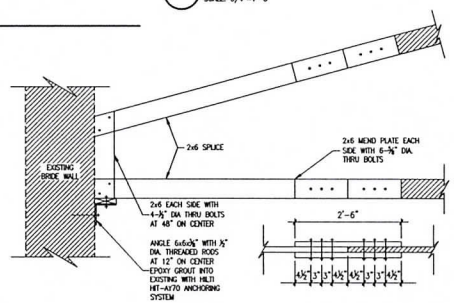
D5 SECTION
SCALE: 3/4"=1'-0"





B5 SECTION
SCALE: 3/4"=1'-0"

B4 SECTION
SCALE: 3/4"=1'-0"



A5 SECTION
SCALE: 3/4"=1'-0"

Hands Engineering, Inc.
Engineers
Suite A1, NM 87505
Phone: (505) 473-0662
Fax: (505) 473-0663

SHEET TITLE: SECTIONS
PROJECT: CASTANEDA HOTEL
LAS VEGAS, NEW MEXICO

THE DRAWINGS, THE ARCHITECTURAL MODELS AND OTHER PROJECT DOCUMENTS PREPARED BY HANDS ENGINEERING, INC. ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF HANDS ENGINEERING, INC. WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THEY ARE NOT TO BE USED BY THE OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT WITHOUT THE WRITTEN AGREEMENT OF HANDS ENGINEERING, INC.

No.	REVISION	BY	APP'D	DATE

PROJECT 2014-4268
DESIGN RHW
CHECKED RHW
DRAWN DJM
DATE: 30 SEP 14
SCALE: AS NOTED

SHEET No.
S-501
OF ?

J A E Construction LLC

James Encinias - Owner
P. O. Box 3713
505-454-8401 (office)
505-426-5004 (cell)

CONSTRUCTION LLC
LIC#366234

September 28, 2014

Tom Clayton
Rawlins Building Stabilization Project

Total sq ft	

BID PROPOSAL

MATERIAL AND LABOR	TOTAL
Phase One:	
1- Remove existing metal roof and return to owner	
2- Remove existing 1X6 decking	
3- Remove damage portions of roof rafters, roof valley framing and ceiling joists and repair as per structural engineer's recommendations.	
4- Install 3/4" plywood deck, install titanium underlayment and grace ice and water shield.	
5- Remove existing skylight curb and glazing.	
6- Install new skylight curb, frame and glazing.	
7- Repair and repoint brickwork at all parapet chimneys.	
8- Reconstruct missing brick parapet at northwest roof corner.	
9- Install metal roofing and flashing.	
10- Install scuppers, downspouts and field drainage to divert water drainage beyond building structure.	
11- Replace and repair brick and mortar construction similar to existing construction.	
12- Install temporary, 1/4" plywood interior covers at all open windows.	
13- Paint exterior face of temporary window covering, color to be specified upon installation.	
	$97,500.00
Phase Two:	
1- Remove ground floor wood flooring and floor joists and return to owner.	
2- Install concrete slab floor and grade beams as per Structural Engineer's specifications.	
	$40,000.00
Phase Three:	
1- Install ground floor columns and beams as per Structural Engineer's specifications.	
2- Remove and repair damaged sections of second floor framing as per Structural Engineer's recommendations.	
	$50,000.00

Permits	**$2,000.00**
Exclusions - This bid does not include pricing for any finishes such as drywall, tape and texture painting,	
or interior finishes.	
Any extra work will be handled time and material in agreement with all parties.	
This is an estimation of cost that will have to be estimated again once a stamped set of plan is in place.	
Contractor Fee	**Deferred**
SUBTOTALS FOR LABOR AND MATERIALS	**$189,500.00**

SUBTOTAL	**$189,500.00**
TAX @ 8.0625%	**$15,278.44**
TOTAL BID	**$204,778.44**

***Payment Method: Three Phases**

1. 1/3 at the acceptance of proposal
2. 1/3 at the middle of project
3. 1/3 upon completion of project

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Signature of acceptance

_____

James E. Encinias- Owner