

FORMER SULLIVAN OPERA HOUSE

252-254 Main Street, McGregor, Iowa
Predevelopment Project



Prepared for:
City of McGregor
Historic Preservation Commission
416 Main Street P.O. Box E
McGregor, IA 52157

MARCH 2015



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This Predevelopment Report has been financed in part with Federal funds from the National Park Service, U.S. Department of the Interior. However, the contents and opinions do not necessarily reflect the view or policies of the Department of the Interior, nor does the mention of trade names or commercial products constitute endorsement or recommendation by the Department of the Interior.

By

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TABLE OF CONTENTS

EXECUTIVE SUMMARY 3

INTRODUCTION

Project Team	5
Acknowledgements	6
Equal Opportunity Acknowledgement	6
Purpose of the Report	6
Methodology	7
What is a Predevelopment Plan?	8
Archeological and Historic Protections	8
Brief History of Building Development & Description	9

TREATMENT ALTERNATIVES & CONDITION ASSESSMENT

TREATMENT ALTERNATIVES & SELECTION	
Available Treatment Approaches	11
Treatment Selection and General Project Guidance	
Guidelines for Rehabilitation (STANDARDS)	14
Additional Guidance	16
CHARACTER DEFINING FEATURES	
Character Defining Features and Actions to Retain	
Character and Significance	17
CONDITION ASSESSMENT AND TREATMENT OF MATERIALS	
Introduction	20
Rehabilitation Guidance	20
Recommended Courses of Action – General	
Identify, Retain, and Preserve	21
Protect and Maintain	21
Repair	21
Replace	22
Design for Missing Historic Features	22

PROPOSED REMEDIAL ACTIONS

General	23
Historic Safeguards	23
Mothballing and Checklist (Unoccupied Spaces)	23
Summary of Proposed Remedial Actions	25

OPINIONS OF COSTS

General	29
Construction Quality	29
Finding Out More about State Tax Credit Program	
and Other Grant Opportunities	30

REMEDIAL ACTIONS AND OPINIONS OF COST TABLES

Summary Table	31
Project Overview and Proposed Phases Defined	32
Selective Demolition	33
Sitework	33
Concrete	33
Masonry	34
Metals	34
Carpentry	35
Roofing	36
Openings	37
Finishes	38
Specialties	39
Special Construction	39
Plumbing	40
Mechanical	40
Electrical	40

APPENDICES

- A. The Secretary of the Interior's Standards for Rehabilitation
 - B. National Park Service Preservation Brief
(Index of available documents)
 - C. Structural Engineer's Report
 - D. Photographs of existing building
 - E. Schematic Drawings – Proposed Rehabilitation
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EXECUTIVE SUMMARY

This report focuses on rehabilitation of the former Sullivan Opera House building through an exploration of its potential for a variety of uses:

- Due in large part to the building's close proximity to an open storm sewer located immediately north of the property, the first floor wooden structural system has completely failed and is no longer safe. To avoid similar failure in the future the cellar will be filled creating a slab on grade main floor. Aside from this exception the building appears structurally stable and suitable for rehabilitation.
- The first floor is comprised of three large open spaces with minimal surviving interior historic fabric. Flexible commercial spaces are planned with thought given to the potential of expanding the neighboring McGregor Historical Museum into the western most bay of the first floor.
- The former theater/ballroom space on the second floor was previously subdivided into multiple apartments and bears no resemblance to its historic roots. Two development schemes are considered for this floor:
 - Four market rate apartments comprised of two large units (each ± 2600 SF one with loft space), one smaller loft unit (± 1300 SF) and an efficiency apartment (± 1000 SF).



PROPOSED SOUTH FAÇADE IMPROVEMENTS

OR

- Development of the second floor as a large open space to once again provide the community with a large area for social, civic and entertainment gatherings. Depending on seating arrangements for a given use the capacity ranges from about 175 to 240 seats.
- The building's primary façade is largely intact in form with significant architectural elements such as window openings and decorative window hoods, metal storefront cornice, building cornice and a large metal pediment all surviving in repairable condition. The storefront was extensively modified over the years; however, the basic storefront structure opening remains intact.
- Likewise the form of the north façade (rear) is intact. Modifications on this façade have been minimal allowing for relative ease of rehabilitation.
- The east façade has been modified to include new window openings and will be further modified to include additional openings sensitively placed and detailed to avoid adversely impacting the buildings historic character as viewed from the street.
- The site to the east of the building will be developed to create new pedestrian connections to the building. Optional development of a new fifteen space parking area in a lot located north of the building beyond the open storm sewer is also considered.

The INTRODUCTION section identifies the project team and project sponsors, acknowledges organizations providing support for the report, and describes the report's purpose and methodology. The TREATMENT ALTERNATIVES and CONDITION ASSESSMENT section establishes historic preservation objectives, proposes a range of remedial actions, and provides opinions of rehabilitation costs. The APPENDICES section provides pertinent supporting and reference documentation.

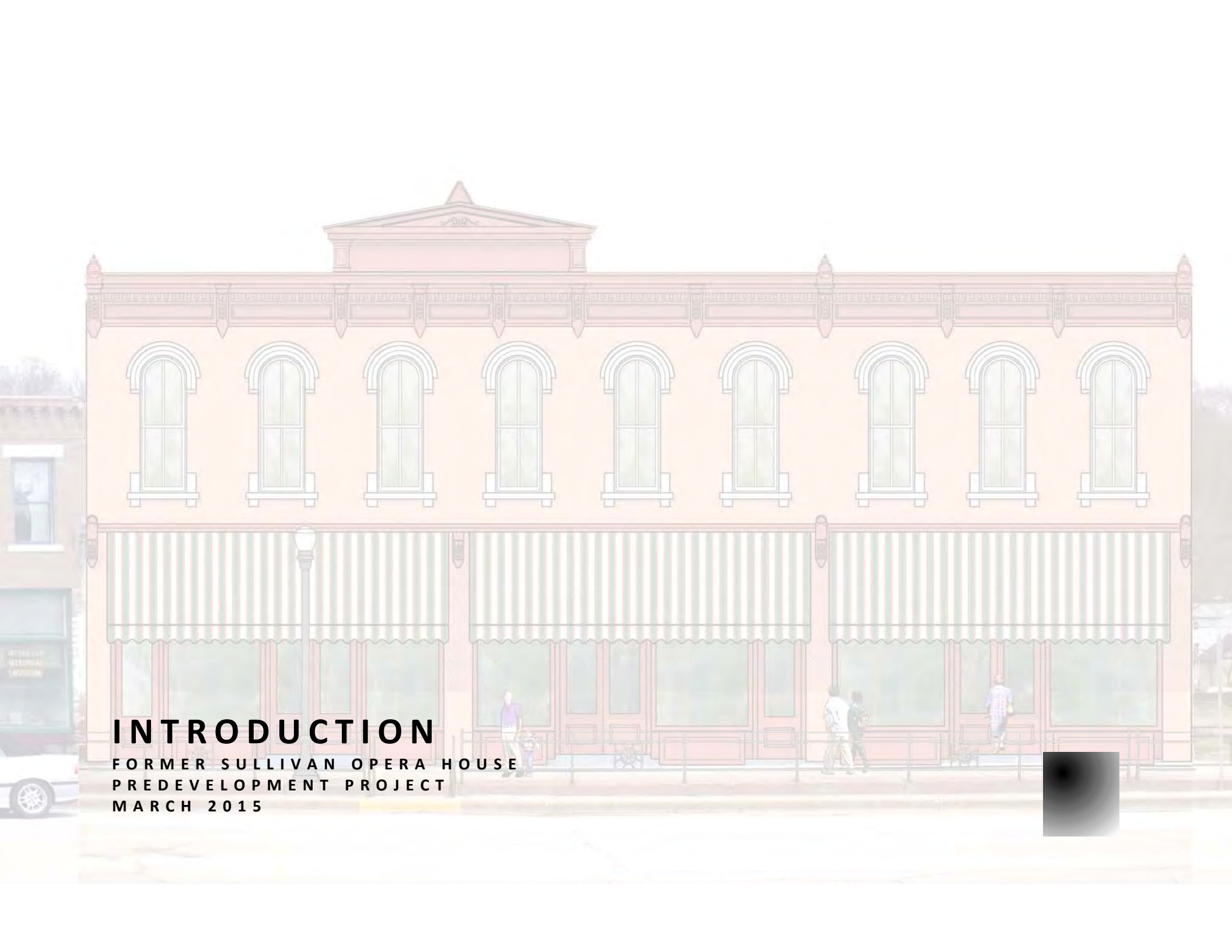
The total cost of rehabilitation is projected to be within an approximate range of \$340,000 to \$5,500,000. The range includes at the low end basic rehabilitation actions to address needed maintenance and safety concerns (basic stabilization and mothballing) while the high end of the range includes rehabilitation using the second floor as assembly space including the optional upgrade of developing parking at a nearby lot. Without the parking area and developing the second floor as apartments the upper range is \$4,600,000. The figures include construction costs, contingencies and professional fees. When reviewing these figures it is important to realize they are influenced by a number of assumptions typical of a project's level of refinement in its early stages of development and because some of the areas involve repairs to concealed conditions, the full extent of which will not be known until the areas are opened during construction.

Areas of a building that are not continuously occupied for the majority of the time should be mothballed; a specific strategy to care for and monitor building spaces. Among other things, mothballing helps ensure that unoccupied portions of a building are monitored for changes. This single component of the multifaceted mothballing process helps to facilitate timely repairs, slow overall deterioration, and improve safety within and around the building. In addition to active building monitoring the mothballing process helps prevent moisture laden, stagnant air from causing or accelerating deterioration of the building's construction thus preserving and protecting surviving historic fabric for future rehabilitation.

The building serves as an important anchor in the block of buildings at the intersection of Main and B Streets (near Third St.). The building is considered a contributing building in the National Register listed *McGregor Commercial Historic District*. A project goal is to maintain this eligibility allowing the project to take advantage of financial incentives associated with appropriate rehabilitation projects. Preservation and retention of historic fabric is of utmost importance in preventing loss of a building's historic character. Retention of historic form and materials should be a primary objective of each project at this building to ensure the building's historic character is not diminished. "It should be remembered, however, that such loss of character is just as often caused by the cumulative effect of a series of actions that would seem to be minor interventions."¹

The building contributes to the *McGregor Commercial Historic District* and stands as an important reminder of the history and development of the community. It seems appropriate to take immediate action to properly rehabilitate the building by moving forward with organizing and planning a rehabilitation project. The majority of grants and similar incentives directed towards preservation of historic resources require listing or at a minimum a determination by the State Historical Society that the building is eligible for listing on the National Register. Access to grants and other financial incentives such as these are an excellent reason to work towards preserving the building's historic character and by so doing preserve its association with the National Register of Historic Places and the associated honors and privileges.

¹ <http://www.nps.gov/tps/standards/rehabilitation/rehabilitation-guidelines.pdf>



INTRODUCTION

FORMER SULLIVAN OPERA HOUSE
PREDEVELOPMENT PROJECT
MARCH 2015

PROJECT TEAM

PRESERVATION ARCHITECT

Douglas J. Steinmetz AIA

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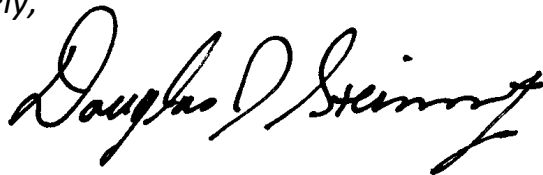
STRUCTURAL ENGINEERING

Todd A. Birkel, PE

Hooting Coyote LLC
Elizabeth, IL

On behalf of the project team, thank you for the opportunity to provide this study of the historic Sullivan Opera House building. This important historic resource represents a tremendous opportunity to return one of the community's outstanding buildings into full use and service to the community. We have enjoyed studying this site and working with each of the many individuals who assisted us with this effort. It is our hope this report aids you and all who reference it seeking guidance in their mission as stewards of an important community resource.

Sincerely,



ACKNOWLEDGEMENTS

This Predevelopment Report is prepared at the request of the City of McGregor Historic Preservation Commission (HPC) and is funded in part by a Certified Local Government grant jointly administered by the National Park Service and the State Historic Preservation Office. As a result, this Predevelopment Report has been financed in part with Federal funds from the National Park Service, U.S. Department of the Interior. However, the contents and opinions do not necessarily reflect the view or policies of the Department of the Interior, nor does the mention of trade names or commercial products constitute endorsement or recommendation by the Department of the Interior.

HPC, City staff and community members participated in building tours, development of programmatic requirements for rehabilitation and evaluation, discussion and refinement of alternative development schemes presented by this firm. Four public meetings were held to allow community input. Input, guidance and instructions received from these various forums are of great value because ultimately this project must reflect local needs and values to be successfully received in the community. I am thankful and appreciative of the time as well as the valuable information and insight provided through community participation which helped establish project and community goals, provided historical background information for the building, and strengthened observations about current building conditions. I am especially appreciative of the community's patience through this lengthy planning process.

EQUAL OPPORTUNITY ACKNOWLEDGEMENT

This program receives Federal financial assistance for identification and protection of historic properties. Under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975, as amended, the U.S. Department of the Interior prohibits discrimination on the basis of race, color national origin, disability or age in its federally assisted programs. If you believe you have been discriminated against in any program, activity, or facility as described above or if you desire further information, please write to:

Office of Equal Opportunity
National Park Service
1849 C Street, N.W.
Washington, D.C. 20204

PURPOSE OF THE REPORT

The purpose of the report through the use of text, photographs and illustrations is to assist interested parties in their understanding of the building's current condition and the potential this site holds for rehabilitation to once again serve the community. The report also identifies opportunities to reinstate lost historic features and materials, the loss of which adversely impacts the building's historic character. The Secretary of the Interior's "Standards for Rehabilitation" are used as the basis for recommendations made in this report.

The report identifies areas of concern, proposes remedies, and provides insight into the building's character defining features. Photographs are provided (Appendix D) to document and illustrate conditions and important features. Preliminary opinions of costs to implement suggested

remedial actions are included in the report. When referencing these figures it must be noted that they are based on schematic level information associated with predevelopment planning and not the level of understanding that comes with a fully developed project. Opinions of cost provided in the report should therefore be used with this understanding.

It is hoped that the report will be used to inform decisions made with regard to further development and implementation of the project in compliance with referenced Standards and the goals of the community. Moving forward with a plan to halt deterioration, protect historic character and enhance the value of the building to the community helps ensure many more years of service and enjoyment of a significant local historic resource. The report may serve as a marketing tool as the city searches for potential new owners and developers to rehabilitate the building.

In addition to a commitment to the building this project should also be pursued with a strong commitment towards the use of locally available resources such as material suppliers and qualified craftsmen thus reinforcing the importance of this project and completed facility as a community resource. Such a commitment provides additional direction when selecting treatment approaches from available appropriate options. However, it should not be made at the expense of utilizing appropriate treatments, only as an additional factor when making a selection between all viable craftsmen, materials and treatments that will produce results consistent with the Standards and goals established for the project.

METHODOLOGY

Observations were made during several site visits throughout the course of this planning project. Information gained during each site visit is an important component in the cumulative process used in formulating evaluations offered in this report which are adjusted as new information comes to light. Inspections were visual, invasive exploration or specialized investigative techniques were not generally used. Exterior observations were made from the ground. *The Secretary of the Interior's Standards for Rehabilitation* (See Appendix A) are used as the basis for recommendations in this report.

In addition, four public meetings were held with the HPC to discuss observations related to the building's condition and to identify the project's programming goals and to evaluate and select a schematic design representative of the overall goals of the project. Initially, schematic plans were submitted to begin defining an overall preference for circulation within the building and general building usage. This process aided in development of an understanding relating to the impact of constructing necessary vertical circulation to provide access the various floor levels while also accommodating necessary circulation for code required egress from each floor level. Once the core circulation plan was determined and accepted by the HPC general space planning began in earnest using the program requirements identified by the HPC. Several design alternatives were presented to the HPC for review and comment leading to their selection of the floor plan and façade rehabilitation design presented in this study.

WHAT IS A PREDEVELOPMENT PLAN?

In many ways a predevelopment plan is similar to a preservation plan whose purpose is to develop an understanding of a building's physical history and condition, and provide specific, useable information for implementing an appropriate treatment plan. Buildings linked to a specific period in the history of a community have the potential to continue serving that community in many ways, long after the period of significance cited in a National Register Nomination has past. To that end it is important to distinguish the value of important cultural resources and work towards recognizing and maintaining the features and fabric that define the building's character during the period in which events significant to the community occurred. Like a Preservation Plan the Predevelopment Plan is a tool used throughout the rehabilitation process and beyond "which analyzes the physical evolution, condition, and potential of a historic building as documented by historical and architectural and technological evidence."¹

Documentation of an historic structure includes identifying the visual aspects and physical features that contribute to its distinctive architectural character. These *character-defining features* include the overall shape of the building, its materials, craftsmanship, decorative details, and interior spaces and features, as well as site and landscape elements. Character-defining features are those aspects of a building that define its particular aesthetic quality, and without which its architectural or historical integrity would be diminished or lost.

Finally, a Predevelopment Plan assesses the *condition* of the building to determine the extent and causes of deterioration and structural problems, and develops recommendations and cost estimates for treatment and future reuse. Resources available for the preservation of historic structures are typically extremely limited. Rehabilitation is focused on a means of finding compatible uses in the long term, and minimizing the loss of historic character in the short term all in the context of creating a viable use which accommodates desired functions while also considering current codes, operating and maintenance costs.

ARCHEOLOGICAL AND HISTORIC PROTECTIONS

At the start of each new project the property's historic significance should be shared with all workers so they are aware of the property's value to the community; helping those actively involved in the rehabilitation project understand their role in preserving the resource. There may be very little ground archeological potential associated with this site since the site is nearly fully occupied by the building. However, all ground disturbing work and interior removals should proceed cautiously so the maximum benefit may be reaped from each discovery. Projects should include specific procedures relating to the discovery and treatment of artifacts and historic fabric so appropriate interpretation, mitigation and documentation may occur. Preference should be given to repairing deteriorated historic fabric over replacement whenever that is feasible. Workers should be cautioned to protect significant historic features and held responsible to provide satisfactory repair if damage occurs.

¹ "Alterations, Additions and Architects (Historic Resource Information)". New Hampshire Land and Community Heritage Investment Program website. Accessed February 27, 2014. <http://www.lchip.org/historic-cultural-resource-pages/lchip-publications-and-documents.asp#general-information>

BRIEF HISTORY of BUILDING DEVELOPMENT & DESCRIPTION

Inserted figures provided in this section were provided by members of the CLG and provide insight into the missing features of the opera house performance venue.

In a publication called the *Improvement Bulletin*, Volume 30, May 27, 1905, the following entry under Theatres and Halls was found:

"McGregor, IA - T.J. Sullivan is taking bids for alterations of the Sullivan block for an Opera house." This entry appears to support the opinion held by this report's author that the building was not originally constructed as an opera house but later converted for such use. More research into the building timeline is needed to bring clarity to the issue.

"Built as the Sullivan Opera House 1882 - 1884, it had a wide stairway leading to the second story Sullivan Opera House where graduations, balls and plays were held. The T. J. Sullivan Clothing store was on the first floor of the right-most building. Timothy J. Sullivan continued in the clothing business until his retirement in 1895. Sullivan also served as a state representative, councilman and mayor of McGregor, was on the board of education and a justice of the peace. From 1886 - 1930 the first floor housed Flanders Furniture store, a hardware store, and a confectionary. In 1932 the building opened as a Consolidated Stores Five and Dime, the Polar Pantry opened in March, 1938, upstairs was a roller rink. It was also a Ben Franklin Store run by Isabel McQuillin. In the 1940s the Hinsch Brothers operated a hardware store at this site. Charles and Leona Lange bought the business from Hinsch, and the Langes kept the business in the family with Charles' son Roger and his wife Rita operating it. After 60+ years in business, McGregor Hardware closed its doors in November, 2002."¹

It is interesting to note the detailed descriptions of the stairs leading up to the opera house, its ticket booth, entrance, stage and stage doors across the front of the building and the canvas stage curtain in the text above and article to the right. Today, most if not all physical evidence of these features are erased or concealed entirely from view.



1. *Take a Walk Through Historic Downtown McGregor* Updated 2014

Opera House is a link with McGregor's colorful past

Have you ever wondered what it would be like to settle into a comfortable seat in an old-time opera house and be entertained by the witty gaieties of the comedies of George Bernard Shaw, Jane Austen's *Pride and Prejudice* or a Decoration Day program when everybody, but those who were snobbing, listened raptively to speeches echoing the words of God and country spoken by ministers of the local churches and visiting dignitaries?

If you were an admirer of Shakespeare you were treated to generous amounts of *Hamlet*, *The Merry Wives of Windsor*, and the *Sonnets* where the bard speaks of a love affair between his patron and a married woman, the Dark Lady. When I was a boy in the 1920's in my hometown of McGregor, a stately two-story, red brick building on mile-long, straight-as-a-string Main Street reflected the wealth and standing in the community of its owner, Timothy J. Sullivan, who had an opera house on the building's second floor.

The imposing landmark with nine arched windows, decorative cornice with a "star" cap, constructed in the early 1880's was an outstanding example of Victorian craftsmanship.

Sullivan, affectionately known as "T.J." had worn many hats. He was elected in 1895 as State Representative of Clayton County, had a clothing business for many years, served as Justice of the Peace and was mayor for several terms.

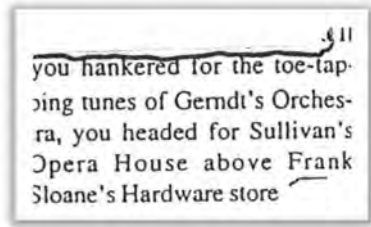
The cost of admission for a stage performance or a dance was 25 cents. There was a wide inside stairway leading up to the ticket office and entrance to the hall, with the stage and wings extending across the front, and short stairways leading up to doors on either side.

The canvas stage curtain, worked by ropes and pulleys, had a scenic panorama in the center and rectangular advertisements of local merchants across the top and bottom and down each side.

An unforgettable performance that played to a full house for two nights was the "Womanless Wedding": rendered by an all male cast of the town's businessmen slicked up in elegant gowns and wide-brimmed hats festooned with feathers and imitation fruit.

Members of the Ladies Aid Society were not ones to be left out in the cold when it came to providing entertainment. They gave readings from the works of the English Lake Poets, Wordsworth, Coleridge, and Southey, and sponsored plays given by school children.

Nowadays, the red brick building, a link with the town's colorful past, is occupied by McGregor Hardware.



The text at left is excerpted from *McGregor History Notes* by Mrs., Lena D. Myers.

In a publication called the Improvement Bulletin, Volume 30, May 27, 1905, the following entry under Theatres and Halls was found:

McGregor, IA - T.J. Sullivan is taking bids for alterations of the Sullivan block for an Opera house.

As I think you suspected the second floor must have had another use before becoming the opera house. This may also explain the lack of center supports and the strange structure on top of the building.

Additional information about the
opera house capabilities:

Google Books search term "Sullivan Opera House" McGregor

The Cahn Leighton 1913-1914 Official Theatrical Guide

Meanings of abbreviations, in parentheses, have been taken from page 13 of the guide. I haven't attempted to decipher the printing and hotel terms and abbreviations.

McGREGOR Pop 1,300, D. Pop. (Drawing Population) 2,000), Sullivan Opera House, TJ Sullivan Mgr., S C (Seating Capacity) 425, Theatre on second floor, ILL (Illuminated) ELEC. A.C. (Alternating Current), Stag P.O. (Proscenium Opening), 25x12 Ft., F to B.W. (Footlights to Back Wall), 26 Ft. B.S.W. (Between Side Walls), 50 Ft., Apron 1 Ft, 4 D.R. (Dressing Rooms) Printing 3 stands 14 8 sh 10 1 sh L 50 1 sh L 50 cards 500 heralds Billposter Theatre Newspaper Times Thu cir 1,650 A Heubsch Ed News cir 1,200 JF Widman Ed 2 cuts required Hotels Zimmerman A S \$1.50 D Anderson A special rate \$1.40 S \$1.25 D Railroad CM & Tom Hogan Agt Miles to Dubuque 53 SE Express WF

Currently, the building sits vacant and derelict. Recent efforts to remove debris, prevent roosting pigeons access and shore collapsed areas have been a welcome start to the building's rehabilitation going a long way in stabilizing the building, greatly slowing its rate of deterioration.



In spite of its condition the Sullivan Opera House remains an important building in the block of buildings at the intersection of Main and B Streets. Its central position and its massiveness, (the building takes up the equivalent of three lots, dominates the view at this intersection. Directly behind the building is an open storm sewer which has on many occasions flooded and regularly contributes to moist conditions in the cellar spaces. The long term impact of this pervasive moisture problem has been the near total collapse of the first floor into the cellar.



Storefront ca 1890*

*Historic Photo Courtesy of City of McGregor Historic Preservation Commission



Storefront 2014

Great Potential:



Showing rehabilitated façade with
awning retracted.



Showing rehabilitated façade with
awning deployed.

**TREATMENT ALTERNATIVES &
CONDITION ASSESSMENT**

**FORMER SULLIVAN OPERA HOUSE
PREDEVELOPMENT PROJECT
MARCH 2015**

TREATMENT ALTERNATIVES & SELECTION

AVAILABLE TREATMENT APPROACHES

Each property has distinct character-defining features which must be properly treated to protect the historic integrity and durability of the historic resource. Architectural treatment, whether classified as interim stabilization¹ or one of the four treatments described below must be appropriate to the individual property to accomplish this. *The Secretary of the Interior's Standards for the Treatment of Historic Properties (Standards)* set forth appropriate treatments for historic properties. As a general guideline for treatment, the *Standards* limit treatment in order to retain original historic fabric, character-defining features, and integrity.

"The *Standards* are neither technical nor prescriptive, but are intended to promote responsible preservation practices that help protect our Nation's irreplaceable cultural resources. For example, they cannot, in and of themselves, be used to make essential decisions about which features of the historic building should be saved and which can be changed. But once a treatment is selected, the *Standards* provide philosophical consistency to the work.

The four treatment approaches are **Preservation**, **Rehabilitation**, **Restoration**, and **Reconstruction**, outlined below in hierarchical order and explained:

Preservation: places a high premium on the retention of all historic fabric through conservation, maintenance and repair. It reflects a building's continuum over time, through successive occupancies, and the respectful changes and alterations that are made.

Rehabilitation: emphasizes the retention and repair of historic materials, but more latitude is provided for replacement because it is assumed the property is more deteriorated prior to work. (Both Preservation and Rehabilitation standards focus attention on the preservation of those materials, features, finishes, spaces, and spatial relationships that, together, give a property its historic character.)

Restoration: focuses on the retention of materials from the most significant time in a property's history, while permitting the removal of materials from other periods.

Reconstruction: establishes limited opportunities to re-create a non-surviving site, landscape, building, structure, or object in all new materials.

¹ Stabilization: Control deterioration in order to retain historic configurations and materials. Stabilization may involve using temporary, intrusive, non-historic means that are reversible.

Choosing the most appropriate treatment from the *Standards* requires careful decision-making about a building's historical significance, as well taking into account a number of other considerations:

Relative importance in history: Is the building a nationally significant resource--a rare survivor or the work of a master architect or craftsman? Did an important event take place in it? National Historic Landmarks, designated for their "exceptional significance in American history," or many buildings individually listed in the National Register often warrant Preservation or Restoration. Buildings that contribute to the significance of a historic district but are not individually listed in the National Register more frequently undergo Rehabilitation for a compatible new use.

Physical condition: What is the existing condition--or degree of material integrity--of the building prior to work? Has the original form survived largely intact or has it been altered over time? Are the alterations an important part of the building's history? Preservation may be appropriate if distinctive materials, features, and spaces are essentially intact and convey the building's historical significance. If the building requires more extensive repair and replacement, or if alterations or additions are necessary for a new use, then Rehabilitation is probably the most appropriate treatment. These key questions play major roles in determining what treatment is selected.

Proposed use: An essential, practical question to ask is: Will the building be used as it was historically or will it be given a new use? Many historic buildings can be adapted for new uses without seriously damaging their historic character; special-use properties such as grain silos, forts, ice houses, or windmills may be extremely difficult to adapt to new uses without major intervention and a resulting loss of historic character and even integrity.

Mandated code requirements: Regardless of the treatment, code requirements will need to be taken into consideration. But if hastily or poorly designed, a series of code-required actions may jeopardize a building's materials as well as its historic character. Thus, if a building needs to be seismically upgraded, modifications to the historic appearance should be minimal. Abatement of lead paint and asbestos within historic buildings requires particular care if important historic finishes are not to be adversely affected. Finally, alterations and new construction needed to meet accessibility requirements under the Americans with Disabilities Act of 1990 should be designed to minimize material loss and visual change to a historic building.”²

TREATMENT SELECTION AND GENERAL PROJECT GUIDANCE

The “Secretary of the Interior’s Standards for the Treatment of Historic Properties” provides pertinent direction to the overall approach to the project. Features of a building display unique historical characteristics such as being prominently positioned or having a higher degree of integrity or visibility than other features making it possible to assign differing treatment strategies to features of the building based on an assessment of those characteristics. This level of analysis establishes appropriate treatments for individual materials and details found within the building while still adhering to the guidance found in the “Secretary of the Interior’s Standards for the Treatment of Historic Properties”.

² Excerpt from the National Park Service’s Introduction and Historical Overview of “The Secretary of the Interior’s Standards for the Treatment of Historic Properties”.

Selection of the appropriate level of treatment is based on the treatment descriptions provided above and observations of existing conditions. ***Based on this, the guidelines for Rehabilitating Historic Buildings found within those standards are used as a basis for suggested work described in this Report.*** Guidelines for Rehabilitation: the Secretary of the Interior's Standards for the Treatment of Historic Properties follow:

Guidelines for Rehabilitation: the Secretary of the Interior's Standards for the Treatment of Historic Properties³

Rehabilitation: emphasizes the retention and repair of historic materials, but more latitude is provided for replacement because it is assumed the property is more deteriorated prior to work. (Both Preservation and Rehabilitation standards focus attention on the preservation of those materials, features, finishes, spaces, and spatial relationships that, together, give a property its historic character.)

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will 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 elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will 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.

³ "Standards for Rehabilitation", National Park Service website, Accessed November 11, 2009,
http://www.nps.gov/history/hps/tps/standguide/rehab/rehab_standards.htm

ADDITIONAL GUIDANCE

The National Park Service publishes a series of Preservation Briefs (See Appendix B for additional information) that provide detailed discussion of appropriate treatments for historic buildings and materials. Recommendations of the Preservation Briefs are used as a basis for formulating strategies and approaches to implementing remedial work of this project. Additional guidance may also be found in “*Interpreting the Standards Bulletins*” (<http://www.nps.gov/tps/standards/applying-rehabilitation/standards-bulletins.htm>) which are case-specific references to decisions made by the National Park Service in its administration of the federal Historic Preservation Tax Incentives program. However, in spite of the unique facts and circumstances that surround these examples they still provide insight into best practices for rehabilitation projects.

CHARACTER DEFINING FEATURES

"The Secretary of the Interior's Standards for the Treatment of Historic Properties" embody two important goals:

- ❖ The preservation of historic materials and,
- ❖ The preservation of a building's distinguishing character.

Every old building is unique, with its own identity and its own distinctive character. Character refers to all those visual aspects and physical features that comprise the appearance of every historic building. Character-defining elements include the overall shape of the building, its materials, craftsmanship, decorative details, interior spaces and features, as well as the various aspects of its site and environment. Even though buildings may be of historic, rather than architectural significance, it is their tangible elements that embody its significance for association with specific events or persons and it is those tangible elements both on the exterior and interior that should be preserved."¹

Following is a listing of exterior and interior building elements which now exist or previously existed and which are considered important to successfully convey the historic character of the building.

CHARACTER DEFINING FEATURES and ACTIONS PROPOSED IN THE REHABILITATION TO RETAIN CHARACTER AND SIGNIFICANCE

Exterior

- Grade lines *No significant changes are proposed to general grade alignment. Minor changes at some building entry points are proposed to facilitate building accessibility.*
- Overall Shape of Building *No additions are proposed.*
- Roof - Overall Shape (geometry) *The overall roof geometry as viewed from public vantage points is unaltered by the project.*
- Building and Storefront Cornices *Existing metal cornices will be retained and repaired with missing pieces replicated from similar surviving pieces.*
- Pediment..... *The metal pediment will be retained and repaired with missing ornamentation restored where documented in historic photographs.*
- Exterior Masonry and Trim *Localized pointing and repair based on guidance of National Park Service Preservation Briefs. Original brickwork was not painted. Removal of paint from primary façade masonry surfaces will be explored to determine the viability of removal without damage to historic materials. Stone window trim will be retained and repaired.*

¹ National Park Service, Preservation Brief 17: Architectural Character Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character

- Entry Point Locations *Existing primary building entry points are retained, reference to historic entry points will be made.*
- Primary Windows..... *The original window openings and sash styles will be restored where modified or missing. Wood replacement sash and frames will be provided based on evidence found in the building and in historic photographs. Where possible historic window sash and frames are to be retained and repaired.*
- Storefronts *The storefronts were previously modified including relocating building entrance points. Based on historic photos and physical evidence at the site the storefronts will be reconstructed to include major elements of a period storefront including appropriate glass, bulkhead, entry recesses and door locations.*
- Awnings..... *Awnings are visible in historic photos and will be considered for inclusion in the storefront rehabilitation. Modifications to the storefront are suggested to facilitate access to the building for physically impaired.*
- Storefront Transoms..... *Although covered by the proposed awning transom glass will be restored.*

Interior

- General First Floor *The first floor has been extensively remodeled. Collapse of the first floor into the cellar resulted in the loss of the floor structure and flooring materials. Very little other material remains that appears historic. Areas of wall plaster survive however most is covered with modern wood paneling. Areas of beaded wood ceiling are noted, even above suspended ceilings. Historic materials and details will be retained and repaired where discovered or used as a basis for detailing new finishes. While the extent and location of such materials is unknown, initial building cleanout will proceed slowly and methodically to avoid damage to hidden historic materials.*
- General Second Floor *Extensive remodeling of the second floor resulted in the near total elimination of all historic materials and partitions. New partitions and lowered ceilings have eliminated all sense of the auditorium space's volume. Discovered above apartment ceilings are areas of beaded wood ceiling. Metal columns were discovered concealed in apartment partitions. There is some evidence that original wood floors may exist; however, the extent and condition is unknown due to being covered by modern materials such as carpet and sheet goods (and debris). Evidence of original window and door trim is found above the ceilings of the apartments and provides a basis for detailing of trim and sash.*

- While the extent and location of such materials is unknown, initial building cleanout will proceed slowly and methodically to avoid damage to hidden historic materials.*
- *Existing Stairs..... The surviving stair from first to second floor does not correlate with historic descriptions of that stair being a wide stair and its current location does not relate to door locations visible in historic photos. This does not appear to be the historic stair.*
 - *Existing Circulation..... The building's original public circulation paths appear to have been largely modified in all aspects, and at this time there is no discernable evidence of what the original circulation paths were beyond the locations of entrance doors visible in historic photos.*
 - *Interior Doors..... None extant.*
 - *Interior Trim..... The extent and location of such materials is unknown, initial building cleanout will proceed slowly and methodically to avoid damage to hidden historic materials.*
 - *Wall And Ceiling Finishes Walls and ceilings should be finished as they were historically. Unless brick was exposed to view during the building's period of historical significance it should not be left exposed to view. Where possible, plaster should be repaired otherwise replacement in kind or use of gypsum drywall as an alternative material is acceptable.*

CONDITION ASSESSMENT AND TREATMENT OF MATERIALS

INTRODUCTION

Identification of character defining features and materials along with implementation of appropriate treatments for those building elements are essential steps towards protecting and restoring core qualities that shape and define a building's historic character. This section draws attention to those important materials and details. Also provided in this section are recommendations for the appropriate treatment of those features which are based on the *Secretary of the Interiors Standards for the Treatment of Historic Properties*. Refer to Appendix A for *The Secretary of the Interior's Standards for Rehabilitation* and Appendix B for a listing of the National Park Service's "Preservation Brief" series of technical guidance literature.

REHABILITATION GUIDANCE

The Secretary of The Interior's Standards for Historic Preservation Projects with Guidelines for Applying the Standards¹
The text of this section is extracted in large part from this document which should be referenced to further understand these guidelines.

To provide clear and consistent guidance, the "**Recommended Courses of Action**" are listed in order of historic preservation concerns so that a rehabilitation project may be successfully planned and completed. A successful project that, first, assures the preservation of a building's important or "character-defining" architectural materials and features and, second, makes possible an efficient contemporary use. Rehabilitation guidance in each section begins with protection and maintenance, that work which should be maximized in every project to enhance overall preservation goals. Next, where some deterioration is present, repair of the building's historic materials and features is recommended. Finally, when deterioration is so extensive that repair is not possible, the most problematic area of work is considered: replacement of historic materials and features with new materials.

General project guidance in the form of **Recommended Courses of Action** is described on the following pages which are followed by specific guidance for materials and features present at the subject building.

¹ <http://www.nps.gov/tps/standards/rehabilitation/rehabilitation-guidelines.pdf>

RECOMMENDED COURSES OF ACTION - GENERAL²

Identify, Retain, and Preserve

The guidance that is basic to the treatment of all historic *buildings-identifying, retaining, and preserving* the form and detailing of those architectural materials and features that are important in *defining the historic character-is* always listed first in the "Recommended" column. The parallel "Not Recommended" column lists the types of actions that are most apt to cause the diminution or even loss of the building's historic character. It should be remembered, however, that such loss of character is just as often caused by the cumulative effect of a series of actions that would seem to be minor interventions. Thus, the guidance in *all* of the "Not Recommended" columns must be viewed in that larger context, e.g., for the total impact on a historic building.

Protect and Maintain

After identifying those materials and features that are important and must be retained in the process of rehabilitation work, then protecting and maintaining them are addressed. Protection generally involves the least degree of intervention and is preparatory to other work. For example, protection includes the maintenance of historic material through treatments such as rust removal, caulking, limited paint removal, and re-application of protective coating; the cyclical cleaning of roof gutter systems; or installation of fencing, protective plywood, alarm systems and other temporary protective measures. Although a historic building will usually require more extensive work, an overall evaluation of its physical condition should always begin at this level.

Repair

Next, when the physical condition of character-defining materials and features warrants additional work repairing is recommended. Guidance for the repair of historic materials such as masonry, wood, and architectural metals again begins with the least degree of intervention possible such as patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading them according to recognized preservation methods. Repairing also includes the limited replacement in kind or with compatible substitute material of extensively deteriorated or missing parts of features when there are surviving prototypes (for example, brackets, dentils, steps, plaster, or portions of slate or tile roofing). Although using the same kind of material is always the preferred option, substitute material is acceptable if the form and design as well as the substitute material

2

<http://www.nps.gov/tps/standards/rehabilitation/rehabilitation-guidelines.pdf>

RECOMMENDED COURSES OF ACTION
(continued)

Replace

Following repair in the hierarchy, guidance is provided for replacing an entire character-defining feature with new material because the level of deterioration or damage of materials precludes repair (for example, an exterior cornice; an interior staircase; or a complete porch or storefront). If the essential form and detailing are still evident so that the physical evidence can be used to re-establish the feature as an integral part of the rehabilitation project, then its replacement is appropriate. Like the guidance for repair, the preferred option is always replacement of the entire feature in kind, that is, with the same material. Because this approach may not always be technically or economically feasible, provisions are made to consider the use of a compatible substitute material. It should be noted that, while the National Park Service guidelines recommend the replacement of an entire character-defining feature under certain well-defined circumstances, they never recommend removal and replacement with new material of a feature that—although damaged or deteriorated—could reasonably be repaired and thus preserved.

Design for Missing Historic Features

When an entire interior or exterior feature is missing (for example, an entrance, or cast iron facade; or a principal staircase), it no longer plays a role in physically defining the historic character of the building unless it can be accurately recovered in form and detailing through the process of carefully documenting the historical appearance. Where an important architectural feature is missing, its recovery is always recommended in the guidelines as the first or preferred, course of action. Thus, if adequate historical, pictorial, and physical documentation exists so that the feature may be accurately reproduced, and if it is desirable to re-establish the feature as part of the building's historical appearance, then designing and constructing a new feature based on such information is appropriate. However, a second acceptable option for the replacement feature is a new design that is compatible with the remaining character-defining features of the historic building. The new design should always take into account the size, scale, and material of the historic building itself and, most importantly, should be clearly

differentiated so that a false historical appearance is not created.

PROPOSED REMEDIAL ACTIONS

GENERAL

This section summarizes proposed remedial actions and provides an opinion of probable construction costs associated with those remedial actions.

Many firms (Contractors, Suppliers, Architectural and Engineering) have worked on historic buildings and will gladly tell you of their success. Do not be hesitant to educate yourself and probe deeper into their experience. Often people claiming extensive experience with the rehabilitation of historic buildings are not familiar with the Secretary of the Interior's Standards or do not adequately understand them. Extensive experience on old buildings does not necessarily equate to an understanding of appropriate treatments. **The measures of quality are not the same for all building types and owners; correct solutions to building problems are not universal.**

Preference should be given to repairing deteriorated historic fabric over replacement whenever that is feasible. Workmen should be cautioned to protect significant historic features and should be held responsible to provide satisfactory repair if damage occurs.

HISTORIC SAFEGUARDS

Begin each project with a building orientation for workmen so they are aware of the building's important historic features and your procedures in the event of a discovery or emergency during the course of the project. This process helps them appreciate and understand the importance of the structure and their important role in preserving the resource.

MOTHBALLING (Unoccupied Space)

Areas of buildings that are unoccupied for the majority of the time should be treated as mothballed. This appears to be the circumstances this area of the building faces since it is not regularly occupied. Mothballing seems an appropriate and beneficial treatment which among other things helps ensure that an unoccupied area of the building is regularly (at least seasonally) monitored for changes. This single component of the multifaceted mothballing process helps to facilitate timely repairs, slow overall deterioration, and improve safety within and around the building. There are six basic considerations when mothballing a building:

Attention to each of the six considerations during the building's idle period helps protect the building from preventable damage and deterioration. It is suggested that the building be mothballed as described in *Preservation Brief 31: Mothballing Historic Buildings*.

MOTHBALLING CHECKLIST^a

In reviewing mothballing plans, the following checklist may help to ensure that work items are not inadvertently omitted.

Moisture

- Is the roof watertight?
- Do the drainage systems retain their proper pitch and are they clean?
- Are drains unobstructed?
- Are windows and doors and their frames in good condition?
- Are masonry walls in good condition to seal out moisture?
- Is wood siding and trim in good condition?
- Is site properly graded for water run-off?
- Is vegetation cleared from around the building foundation to avoid trapping moisture?

Pests

- Have nests/pests been removed from the building's interior and eaves?
- Are adequate screens in place to guard against pests?
- Has the building been inspected and treated for termites, carpenter ants, rodents, etc.?
- If toxic droppings from bats and pigeons are present, has a special company been brought in for its disposal?

Housekeeping

- Have the following been removed from the interior: trash, hazardous materials such as flammable liquids, poisons, and paints and canned goods that could freeze and burst?
- Is the interior broom-clean?
- Have stored items accumulated in the space?
- If items are stored, are they properly protected from dust, pests, ultraviolet light, and other potentially harmful problems?
- If items are stored do they pose a distinct hazard such as fire, concealing access for maintenance or observations, collecting or trapping moisture?
- Have significant architectural elements that have become detached from the building been labeled and stored in a safe place?

Security/Monitoring

- Have fire and police departments been notified that the building will be mothballed?
- Are smoke and fire detectors in working order?
- Are the exterior doors and windows securely fastened?
- Are plans in place to monitor the building on a regular basis?
- Are the keys to the building in a secure but accessible location?
- Are the grounds being kept from becoming overgrown?

Utilities

- If electricity is provided to the space, is the wiring in safe condition?

Ventilation

- Have steps been taken to ensure proper ventilation of the building?
- Has the area been checked within the last 3 months for interior dampness or excessive humidity?

^a *Preservation Brief 31: Mothballing Historic Buildings*, National Park Service, September 1993.

SUMMARY OF PROPOSED REMEDIAL ACTIONS

Following is a summary of remedial actions included in the opinion of costs table which follows this list.

1. PROJECT OVERVIEW

1.1. Summary of the Work

Rehabilitation of a two story, National Register listed building to accommodate commercial space on first floor and either assembly space OR residences on second floor

1.2. Work Phases

1.2.1. Life Safety

Remedial actions associated with improving safety which may generally be completed independently of other broader scope projects.

1.2.2. Preservation Phase A - Envelope, Infrastructure and Immediate Site

Work generally associated with basic site improvements, roofing and exterior walls including exterior doors and windows to create a finished, weathertight exterior envelop. Also includes work associated with establishing infrastructure for the anticipated full rehabilitation of the building such as circulation, utilities and basic definition of spaces and including structural improvements.

1.2.3. Preservation Phase B - Second Floor Residential Development

Work generally associated with development of second floor as Residential Units

1.2.4. Preservation Phase C - Second Floor Assembly Space Development

Work generally associated with development of second floor as Assembly Space

1.2.5. Optional

Development of lot north of storm sewer as parking area

2. SELECTIVE DEMOLITION

- 2.1. Remove non-historic partitions and deteriorated plaster that cannot be repaired throughout building.
- 2.2. Remove collapsed floor and loft structures throughout first floor. Clear cellar of all debris.
- 2.3. Remove non-historic storefront materials.
- 2.4. Remove fire escape landing and steps

3. SITEWORK

- 3.1. Remove broken and misaligned walkways at rear of building (all)
- 3.2. Prepare east yard for landscaping improvements. Provide plantings and landscape elements
- 3.3. Remove dried vines from exterior masonry
- 3.4. Prepare lot north of storm sewer for landscaping improvements
- 3.5. Provide plantings and landscape elements in lot north of storm sewer to landscape and embellish parking area

4. CONCRETE

- 4.1. Fill and compact cellar spaces and provide concrete slab on grade to replace deteriorated wood floor system on first floor. Includes rough utilities under slab.
- 4.2. Provide site walkways in east yard
- 4.3. Paving repairs at utility excavations.
- 4.4. Provide site walkways in north yard
- 4.5. Provide paved parking area and walkways in lot north of storm sewer

5. MASONRY

- 5.1. Abandon masonry chimneys, demolish to roof line
- 5.2. Samples, tests and mock-ups preparatory to masonry rehabilitation work.
- 5.3. Interior foundation pointing and repair. Minor work to ensure foundation is prepared for filling cellar
- 5.4. Masonry rehabilitation to remove paint and replace deteriorated brickwork and mortar
- 5.5. Stucco repair and resurface on north façade (rear yard)
- 5.6. Stucco repair and resurface on west façade
- 5.7. Stucco repair and resurface on partial height of east façade
- 5.8. New door openings on east wall
- 5.9. Parapet repairs and parapet cap repairs including new wall flashing under parapet caps
- 5.10. CMU elevator shaft and CMU equipment room enclosure and associated alterations

6. METALS

- 6.1. Miscellaneous structural support posts, beams and lintels
- 6.2. Exterior balconies associated with second floor apartments and assembly space
- 6.3. Exterior stairs and railings associated with assembly space
- 6.4. Miscellaneous including roof access ladders
- 6.5. Restore metal storefront and building cornices and building pediment
- 6.6. Metal handrails and railings at interior stairs

7. CARPENTRY

- 7.1. Rough Carpentry
 - 7.1.1. Reframe-repair shed roof overhang at rear of building

- 7.1.2. Repair of deteriorated roof and floor framing systems and framing associated with new openings for stairs and elevator.
- 7.1.3. Wall framing for new floor plan configuration - first floor commercial
- 7.1.4. Wall framing for new floor plan configuration – apartment
- 7.1.5. Wall framing for new floor plan configuration - assembly

7.2. Interior Finish Carpentry

- 7.2.1. Repair wood ceilings supplement with new to make coverage complete
- 7.2.2. Interior stairs and railings in loft apartments
- 7.2.3. Standing and running trim including baseboards, casings, shelving, rods and other such wood trim. First Floor Commercial
- 7.2.4. Standing and running trim including baseboards, casings, shelving, rods and other such wood trim. Residential
- 7.2.5. Standing and running trim including baseboards, casings, shelving, rods and other such wood trim. Assembly

7.3. Exterior Finish Carpentry

- 7.3.1. Decorative trim at primary façade storefront

8. ROOFING

8.1. Membrane Roofing

- 8.1.1. Remove existing roof system and provide new roof and flashing system. Includes roof access hatch and walkway pads to roof mounted equipment. Assumes roof deck insulation.

8.2. Building Insulation

- 8.2.1. Insulation and vapor retarders (Roof insulation and sidewall where possible)

8.3. Roof Specialties

- 8.3.1. Equipment curbs and roof cuts for mechanicals
- 8.3.2. Skylights and roof access scuttle
- 8.3.3. Gutters and downspouts Roof storm drainage system (Assumes storm drain connection is available)

8.4. Sealants

- 8.4.1. Joint sealants to ensure building envelope is weathertight

9. OPENINGS

9.1. Windows And Hardware

- 9.1.1. Provide wood window sash and frames to match historic visible in historic photos and in existing non historic openings
- 9.1.2. Provide wood window sash and frames to match historic in new openings
- 9.1.3. Replace building storefront systems based on historic photos and physical evidence

9.2. Door, Frame And Hardware

- 9.2.1. Building entrance doors and hardware at entry locations on north and east façades (South incl in storefront)
- 9.2.2. Interior doors at entry points to apartments spaces, including hardware
- 9.2.3. Interior doors at entry points to second floor assembly spaces including hardware
- 9.2.4. Interior doors within spaces including hardware - First Floor Commercial

- 9.2.5. Interior doors within spaces including hardware – Residential

- 9.2.6. Interior doors within spaces including hardware – Assembly

- 9.2.7. Rolling shutter at kitchen serving - Assembly

10. FINISHES

10.1. Plaster and Drywall

- 10.1.1. Plaster repair where feasible. Drywall walls and ceilings - First floor Commercial

- 10.1.2. Plaster repair where feasible. Drywall walls and ceilings – Residential

- 10.1.3. Plaster repair where feasible. Drywall walls and ceilings - Assembly

10.2. Exterior Painting

- 10.2.1. Preparatory treatments for exterior painting

- 10.2.2. Full prime coat and two finish coats on all surfaces to be painted. Assume three color scheme

10.3. Interior Painting

- 10.3.1. Preparatory treatments for interior painting

- 10.3.2. Full prime coat and two finish coats on all surfaces to be painted. Assume three color scheme

10.4. Flooring

- 10.4.1. Wood flooring - First Floor

- 10.4.2. Wood flooring – Residential

- 10.4.3. Wood flooring – Assembly

- 10.4.4. Carpeting – Residential

- 10.4.5. Carpeting – Assembly

- 10.4.6. Tile flooring - First floor

- 10.4.7. Tile flooring – Residential

- 10.4.8. Tile flooring - Assembly

11. SPECIALTIES

- 11.1. Storefront awning system
- 11.2. Fireplace inserts
- 11.3. Moveable partition
- 11.4. Commercial Kitchen cabinets and countertops
- 11.5. Commercial Bathroom vanities and countertops
- 11.6. Residential Kitchen cabinets and countertops
- 11.7. Residential Bathroom vanities and countertops
- 11.8. Building directory and signage
- 11.9. Fire extinguishers and cabinets

12. SPECIAL CONSTRUCTION

- 12.1. Elevator equipment and controls (Two stops)
- 12.2. Fire suppression system assumes fire pump is required to achieve necessary water delivery
- 12.3. Fire and intrusion detection system for all levels of building
- 12.4. Light and sound system for second floor assembly space (Allowance)
- 12.5. Residential bathroom accessories
- 12.6. Commercial toilet room accessories

13. PLUMBING

- 13.1. Domestic water distribution and soil piping system including fixtures and fittings
- 13.2. Commercial warming kitchen.
- 13.3. Commercial toilet room and janitorial rooms
- 13.4. Residential kitchens and bathrooms

14. MECHANICAL

- 14.1. HVAC system for heating and cooling and humidity control of all spaces. Exterior equipment located on roof. Commercial and Assembly use

- 15. HVAC system for heating and cooling and humidity control of all spaces. Exterior equipment located on roof. Commercial and Residential use

16. ELECTRICAL

- 16.1. Rewire building.
- 16.2. Remove abandoned wiring and controls throughout building and properly terminate.
- 16.3. Low voltage wiring for communications and cable
- 16.4. LED lighting in storefront awning
- 16.5. Site lighting in rear yard – basic
- 16.6. Interior lighting and controls for individual spaces
- 16.7. Access control systems

OPINION OF COSTS

GENERAL

The total cost of rehabilitation is projected to be within an approximate range of \$340,000 to \$5,500,000. The range includes at the low end basic rehabilitation actions to address needed maintenance and safety concerns (basic stabilization and mothballing) while the high end of the range includes rehabilitation using the second floor as assembly space including the optional upgrade of developing parking at a nearby lot. Without the parking area and developing the second floor as apartments the upper range is \$4,600,000. The figures include construction costs, contingencies and professional fees. When reviewing these figures it is important to realize they are influenced by a number of assumptions typical of a project's level of refinement in its early stages of development and because some of the areas involve repairs to concealed conditions, the full extent of which will not be known until the areas are opened during construction.

All dollar amounts provided in the estimate are year 2015 values and have not been adjusted for projected (future) dollar values. Prevailing wage rates¹ have been used when calculating labor expenditures for the work described. The estimated prices are based on best judgments which can be made with available information. The full extent of work is in some areas obscured from view and can only be fully understood when actual construction starts and concealed conditions are exposed. Accordingly, no representation is made that bids or negotiated prices will not vary from prices shown. The assumption has been made that all work will be completed in conformance with The Secretary of the Interior's Standards for Rehabilitation and that it will be performed by a single prime contractor².

Although a contingency amount cannot typically be included grant requests, it is recommended that funds totaling at least 15 to 20% of the anticipated project cost be carried as a reserve fund. Contingency funds are intended to cover the cost of unforeseen work that may be discovered during the course of the project. I have suggested and used a contingency at the upper end of the range.

Frequently, the best method for receiving competitive bids that are comparable for an extensive project is to provide each bidder with written documents including product specifications and drawings that fully describe the work as you wish it to be constructed. Professional fees for such services generally range in cost from 12 - 15% of the project's construction cost including architectural and engineering services.

CONSTRUCTION QUALITY

Rehabilitation construction costs vary depending on many factors current at the time of construction including; the quality of construction labor and materials utilized, current labor and economic conditions, availability of materials, and seasonal variations in cost of labor and materials. Local bidding requirements such as insurance and Bonding Requirements may also impact the cost of a rehabilitation project as well as limit the

¹ "Prevailing Wage Rates" approximate local union rates.

² A "Prime Contractor" is one with a contract directly with the Owner; not a "subcontractor" who typically has a contract with the Prime Contractor.

available pool of potential bidders. Opinions of cost are based on high quality construction commensurate with that used in original construction and assume the work force is available in close proximity to the project site. When making decisions regarding how or whether work is to be implemented beware of the conventional wisdom conveyed by suppliers, contractors and design professionals not familiar with historic buildings which assumes that cost is of utmost importance and durability and sympathy to historic materials and features is secondary. **Such conventional wisdom is not appropriate for important buildings meant to serve the community for generations while conveying an historic sense of character and place.**

Where budgets exceed current available funding consider alternatives to implement the project in phases by aligning expenditures for project costs with available funds. A phased approach may also help align the project implementation costs to take better advantage of multiple grants over an extended period which has greater potential to cover a higher percentage of project cost through grant dollars than can often be accomplished with a single grant. This is due primarily to the generally small pool of available grant dollars currently available. This strategy may be accomplished by matching project phases to individual grant opportunities. This approach requires a careful assessment of available funds and project priorities as well as coordination of phases so subsequent work does not interfere with completed work.

FINDING OUT MORE ABOUT THE STATE TAX CREDIT PROGRAM AND OTHER GRANT OPPORTUNITIES

Ownership structure plays a significant role in available grant and rehabilitation incentive dollars making exploration of that element a critical piece of any initial planning. For example, the federal government and the state of Iowa have preservation tax credit incentive programs which provide a tax rebate incentive for approved/certified rehabilitation projects. Neither program is available to government entities that own buildings; however, the state program is available to non-profit owners while the federal program is not. There are differences in how the credits may be applied as well. While the federal program is limited to use as a tax credit, the state program has flexibility that allows a refund of the credits unless taxes are owed in excess of the credits. The state program offers a tax credit equal to 25% while the federal program offers 20% of qualified rehabilitation costs incurred on a project as tax credits. This is a process that requires legal and accounting input beyond the scope of my expertise and this report.

For the majority of rehabilitation financial incentive programs the rehabilitation work must meet the Secretary of the Interior's "Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings."

For more information on the state tax credit programs see: <http://www.iowahistory.org/historic-preservation/index.html> under the "Tax Incentives for Rehabilitation" link or contact Preservation Program Manager - Iowa Department of Cultural Affairs, at (515) 281-8742. For information on grants available through the State Historical Society see <http://www.iowahistory.org/about/grants/index.html>. Consider contacting the National Trust for Historic Preservation. They have a great deal of interest in saving historic buildings see <http://www.preservationnation.org/> or specifically for available grants you may e-mail grants@nthp.org or 202-588-6277.

REMEDIAL ACTIONS AND OPINION OF COST

SUMMARY TABLE					
WORK CATEGORY	PROPOSED PRIORITIES				
	I	II			III
	Life Safety	Preservation Phase			Optional
		A (BLDG)	B (APT)	C (ASMBLY)	
SELECTIVE DEMOLITION	\$18,800	\$37,600	\$0	\$0	\$0
SITEWORK	\$0	\$156,800	\$0	\$0	\$221,000
CONCRETE	\$131,100	\$37,700	\$0	\$0	\$31,600
MASONRY	\$37,000	\$395,200	\$0	\$0	\$0
METALS	\$0	\$87,300	\$13,000	\$15,400	\$0
CARPENTRY	\$0	\$195,700	\$214,400	\$180,500	\$0
ROOFING	\$142,800	\$22,475	\$9,969	\$9,556	\$0
OPENINGS SUBTOTAL	\$0	\$217,200	\$81,600	\$34,800	\$0
FINISHES	\$0	\$502,198	\$409,140	\$353,762	\$0
SPECIALTIES	\$1,200	\$57,900	\$99,100	\$114,100	\$0
SPECIAL CONSTRUCTION	\$9,600	\$221,800	\$3,100	\$32,400	\$0
PLUMBING	\$0	\$268,800	\$94,120	\$56,180	\$0
MECHANICAL	\$0	\$0	\$537,900	\$896,500	\$0
ELECTRICAL	\$0	\$532,740	\$129,087	\$455,595	\$0
PROJECT TOTALS	\$340,500	\$2,733,413	\$1,591,416	\$2,148,793	\$252,600
COST DISTRIBUTION					
CONSTRUCTION COST	\$253,348	\$2,036,952	\$1,184,089	\$1,598,805	\$187,946
CONTINGENCY (20%)	\$50,670	\$407,390	\$236,818	\$319,761	\$37,589
FEES (12%)	\$36,482	\$293,321	\$170,509	\$230,228	\$27,064
TOTAL (ROUNDED OFF)	\$341,000	\$2,738,000	\$1,591,000	\$2,149,000	\$253,000
CUMULATIVE TOTALS					
PRIORITY I	\$341,000				
PRIORITY I + IIA		\$3,079,000			
PRIORITY I + IIA + IIB			\$4,670,000		
PRIORITY I + IIA + IIC				\$5,228,000	
PRIORITY - OPTIONAL ONLY					\$252,600
The opinion of costs is based on experience and professional judgments which can be made with available information at this stage of project development. The full extent of work is, in some areas, obscured from view, not yet defined or remains otherwise unknown. In such cases the Work can only be fully understood when the project is more fully detailed and in some cases only when actual construction starts and concealed conditions are exposed. This Consultant has no control over the cost or availability of labor, equipment or materials, or over market conditions, or the Contractor's method of pricing. Accordingly, this Consultant cannot warrant or represent that bids or negotiated prices will not vary from prices shown.					

REMEDIAL ACTIONS	PROPOSED PRIORITIES				
	I	II			III
	Life Safety	Preservation Phase			Optional
		A (Bldg)	B (Apt)	C (Asmby)	
PROJECT OVERVIEW					
Summary of the Work					
<i>Rehabilitation of a two story, National Register listed building to accommodate commercial space on first floor and either assembly space OR residences on second floor</i>					
Work Phases					
Life Safety					
<i>Remedial actions associated with improving safety which may generally be completed independently of other broader scope projects</i>					
Preservation Phase A - Envelope, Infrastructure and Immediate Site					
<i>Work generally associated with basic site improvements, roofing and exterior walls including exterior doors and windows to create a finished, weathertight exterior envelop. Also includes work associated with establishing infrastructure for the anticipated full rehabilitation of the building such as circulation, utilities and basic definition of spaces and including structural improvements.</i>					
Preservation Phase B - Second Floor Residential Development					
<i>Work generally associated with development of second floor as Residential Units</i>					
Preservation Phase C - Second Floor Assembly Space Development					
<i>Work generally associated with development of second floor as Assembly Space</i>					
Optional					
<i>Development of lot north of storm sewer as parking area</i>					

REMEDIAL ACTIONS	PROPOSED PRIORITIES				
	I	II			III
	Life Safety	Preservation Phase			Optional
		A (Bldg)	B (Apt)	C (Asmbly)	
SELECTIVE DEMOLITION					
Remove non-historic partitions and deteriorated plaster that cannot be repaired throughout building.	---	\$28,200	---	---	---
Remove collapsed floor and loft structures throughout first floor. Clear cellar of all debris.	\$18,800	---	---	---	---
Remove non-historic storefront materials.	---	\$4,700	---	---	---
Remove fire escape landing and steps	---	\$4,700	---	---	---
SELECTIVE DEMOLITION SUBTOTAL	\$18,800	\$37,600	\$0	\$0	\$0
SITEWORK					
Remove broken and misaligned walkways at rear of building (all)	---	\$8,500	---	---	---
Prepare east yard for landscaping improvements. Provide plantings and landscape elements	---	\$127,600	---	---	---
Remove dried vines from exterior masonry	---	\$20,700	---	---	---
Prepare lot north of storm sewer for landscaping improvements	---	---	---	---	\$153,200
Provide plantings and landscape elements in lot north of storm sewer to landscape and embellish parking area	---	---	---	---	\$67,800
SITEWORK SUBTOTAL	\$0	\$156,800	\$0	\$0	\$221,000
CONCRETE					
Fill and compact cellar spaces and provide concrete slab on grade to replace deteriorated wood floor system on first floor. Includes rough utilities under slab.	\$131,100	---	---	---	---
Provide site walkways in east yard	---	\$14,500	---	---	---
Paving repairs at utility excavations.	---	\$6,100	---	---	---
Provide site walkways in north yard	---	\$17,100	---	---	---
Provide paved parking area and walkways in lot north of storm sewer	---	---	---	---	\$31,600
CONCRETE SUBTOTAL	\$131,100	\$37,700	\$0	\$0	\$31,600

REMEDIAL ACTIONS	PROPOSED PRIORITIES				
	I	II			III
	Life Safety	Preservation Phase			Optional
		A (Bldg)	B (Apt)	C (Asmbly)	
MASONRY					
Abandon masonry chimneys, demolish to roof line	\$2,200	---	---	---	---
Samples, tests and mock-ups preparatory to masonry rehabilitation work.	---	\$1,200	---	---	---
Interior foundation pointing and repair. Minor work to ensure foundation is prepared for filling cellar	\$19,300	---	---	---	---
Masonry rehabilitation to remove paint and replace deteriorated brickwork and mortar	---	\$208,700	---	---	---
Stucco repair and resurface on north façade (rear yard)	---	\$95,500	---	---	---
Stucco repair and resurface on west façade	---	\$21,600	---	---	---
Stucco repair and resurface on partial height of east façade	---	\$14,900	---	---	---
New door openings on east wall	---	\$2,200	---	---	---
Parapet repairs and parapet cap repairs including new wall flashing under parapet caps	\$15,500	---	---	---	---
CMU elevator shaft and CMU equipment room enclosure and associated alterations	---	\$51,100	---	---	---
MASONRY SUBTOTAL	\$37,000	\$395,200	\$0	\$0	\$0
METALS					
Miscellaneous structural support posts, beams and lintels	---	\$15,400	---	---	---
Exterior balconies associated with second floor apartments and assembly space	---	---	\$13,000	---	---
Exterior stairs and railings associated with assembly space	---	---	---	\$15,400	---
Miscellaneous including roof access ladders	---	\$2,200	---	---	---
Restore metal storefront and building cornices and building pediment	---	\$69,700	---	---	---
Metal handrails and railings at interior stairs	---	\$8,500	---	---	---
METALS SUBTOTAL	\$0	\$87,300	\$13,000	\$15,400	\$0

REMEDIAL ACTIONS	PROPOSED PRIORITIES				
	I	II			III
	Life Safety	Preservation Phase			Optional
		A (Bldg)	B (Apt)	C (Asmbly)	
CARPENTRY					
Rough Carpentry					
Reframe-repair shed roof overhang at rear of building	---	\$5,900	---	---	---
Repair of deteriorated roof and floor framing systems and framing associated with new openings for stairs and elevator.	---	\$17,800	---	---	---
Wall framing for new floor plan configuration - first floor commercial	---	\$17,000	---	---	---
Wall framing for new floor plan configuration - apartment	---	---	\$39,800	---	---
Wall framing for new floor plan configuration - assembly	---	---	---	\$34,700	---
Interior Finish Carpentry					
Repair wood ceilings supplement with new to make coverage complete	---	\$22,100	---	---	---
Interior stairs and railings in loft apartments	---	---	\$15,300	---	---
Standing and running trim including baseboards, casings, shelving, rods and other such wood trim. First Floor Commercial	---	\$120,200	---	---	---
Standing and running trim including baseboards, casings, shelving, rods and other such wood trim. Residential	---	---	\$159,300	---	---
Standing and running trim including baseboards, casings, shelving, rods and other such wood trim. Assembly	---	---	---	\$145,800	---
Exterior Finish Carpentry					
Decorative trim at primary façade storefront	---	\$12,700	---	---	---
CARPENTRY SUBTOTAL	\$0	\$195,700	\$214,400	\$180,500	\$0

REMEDIAL ACTIONS	PROPOSED PRIORITIES				
	I	II			III
	Life Safety	Preservation Phase			Optional
		A (Bldg)	B (Apt)	C (Asmbly)	
ROOFING					
Membrane Roofing					
Remove existing roof system and provide new roof and flashing system. Includes roof access hatch and walkway pads to roof mounted equipment. Assumes roof deck insulation.	\$134,600	---	---	---	---
Building Insulation					
Insulation and vapor retarders (Roof insulation and sidewall where possible)	---	\$5,225	\$8,621	\$7,054	---
Roof Specialties					
Equipment curbs and roof cuts for mechanicals	---	\$3,850	\$1,348	\$2,503	---
Skylights and roof access scuttle	---	\$11,100	---	---	---
Gutters and downspouts Roof storm drainage system (Assumes storm drain connection is available)	\$8,200	---	---	---	---
Sealants					
Joint sealants to ensure building envelope is weathertight	---	\$2,300	---	---	---
ROOFING SUBTOTAL	\$142,800	\$22,475	\$9,969	\$9,556	\$0

REMEDIAL ACTIONS	PROPOSED PRIORITIES				
	I	II			III
	Life Safety	Preservation Phase			Optional
		A (Bldg)	B (Apt)	C (Asmbly)	
Windows And Hardware					
Provide wood window sash and frames to match historic visible in historic photos and in existing non historic openings	---	\$44,100	---	---	---
Provide wood window sash and frames to match historic in new openings	---	---	\$30,700	---	---
Replace building storefront systems based on historic photos and physical evidence	---	\$100,100	---	---	---
Door, Frame And Hardware					
Building entrance doors and hardware at entry locations on north and east façades (South incl in storefront)	---	\$46,100	---	---	---
Interior doors at entry points to apartments spaces, including hardware	---	---	\$6,700	---	---
Interior doors at entry points to second floor assembly spaces including hardware	---	---		\$23,100	---
Interior doors within spaces including hardware - First Floor Commercial	---	\$26,900	---	---	---
Interior doors within spaces including hardware - Residential	---	---	\$44,200	---	---
Interior doors within spaces including hardware - Assembly	---	---	---	\$5,600	---
Rolling shutter at kitchen serving - Assembly	---	---	---	\$6,100	---
OPENINGS SUBTOTAL	\$0	\$217,200	\$81,600	\$34,800	\$0

REMEDIAL ACTIONS	PROPOSED PRIORITIES				
	I	II			III
	Life Safety	Preservation Phase			Optional
		A (Bldg)	B (Apt)	C (Asmbly)	
FINISHES					
Plaster and Drywall					
Plaster repair where feasible. Drywall walls and ceilings - First floor Commercial	---	\$154,200	---	---	---
Plaster repair where feasible. Drywall walls and ceilings - Residential	---	---	\$232,700	---	---
Plaster repair where feasible. Drywall walls and ceilings - Assembly	---	---	---	\$142,200	---
Exterior Painting					
Preparatory treatments for exterior painting	---	\$15,100	---	---	---
Full prime coat and two finish coats on all surfaces to be painted. Assume three color scheme	---	\$85,500	---	---	---
Interior Painting					
Preparatory treatments for interior painting	---	\$4,983	\$6,040	\$4,077	---
Full prime coat and two finish coats on all surfaces to be painted. Assume three color scheme	---	\$28,215	\$34,200	\$23,085	---
Flooring					
Wood flooring - First Floor	---	\$202,800	---	---	---
Wood flooring - Residential	---	---	\$98,000	---	---
Wood flooring - Assembly	---	---	---	\$154,800	---
Carpeting - Residential	---	---	\$31,900	---	---
Carpeting - Assembly	---	---	---	\$11,400	---
Tile flooring - First floor	---	\$11,400	---	---	---
Tile flooring - Residential	---	---	\$6,300	---	---
Tile flooring - Assembly	---	---	---	\$18,200	---
FINISHES SUBTOTAL	\$0	\$502,198	\$409,140	\$353,762	\$0

REMEDIAL ACTIONS	PROPOSED PRIORITIES				
	I	II			III
	Life Safety	Preservation Phase			Optional
		A (Bldg)	B (Apt)	C (Asmbly)	
SPECIALTIES					
Storefront awning system	---	\$57,900	---	---	---
Fireplace inserts	---	---	\$13,400	---	---
Moveable partition	---	---	---	\$32,700	---
Commercial Kitchen cabinets and countertops	---	---	---	\$66,500	---
Commercial Bathroom vanities and countertops	---	---	---	\$14,900	---
Residential Kitchen cabinets and countertops	---	---	\$69,900	---	---
Residential Bathroom vanities and countertops	---	---	\$14,900	---	---
Building directory and signage	---	---	\$900	---	---
Fire extinguishers and cabinets	\$1,200	---	---	---	---
SPECIALTIES SUBTOTAL	\$1,200	\$57,900	\$99,100	\$114,100	\$0
SPECIAL CONSTRUCTION					
Elevator equipment and controls (Two stops)	---	\$52,100	---	---	---
Fire suppression system assumes fire pump is required to achieve necessary water delivery	---	\$140,900	---	---	---
Fire and intrusion detection system for all levels of building	\$9,600	\$28,800	---	---	---
Light and sound system for second floor assembly space (Allowance)	---	---	---	\$25,600	---
Residential bathroom accessories	---	---	\$3,100	---	---
Commercial toilet room accessories	---	---	---	\$6,800	---
SPECIAL CONSTRUCTION SUBTOTAL	\$9,600	\$221,800	\$3,100	\$32,400	\$0

REMEDIAL ACTIONS	PROPOSED PRIORITIES				
	I	II			III
	Life Safety	Preservation Phase			Optional
		A (Bldg)	B (Apt)	C (Asmbly)	
PLUMBING					
Domestic water distribution and soil piping system including fixtures and fittings	---	\$268,800	\$69,120	\$46,080	---
Commercial warming kitchen.	---	---	---	\$100	---
Commercial toilet room and janitorial rooms	---	---	---	\$10,000	---
Residential kitchens and bathrooms	---	---	\$25,000	---	---
PLUMBING SUBTOTAL	\$0	\$268,800	\$94,120	\$56,180	\$0
MECHANICAL					
HVAC system for heating and cooling and humidity control of all spaces. Exterior equipment located on roof. Commercial and Assembly use	---	INCL IN DEVELOPMENT PHASE B OR C	---	\$896,500	---
HVAC system for heating and cooling and humidity control of all spaces. Exterior equipment located on roof. Commercial and Residential use	---		\$537,900	---	---
MECHANICAL SUBTOTAL	\$0	\$0	\$537,900	\$896,500	\$0
ELECTRICAL					
Rewire building.	---	\$532,740	\$129,087	\$455,595	---
Remove abandoned wiring and controls throughout building and properly terminate.	---	INCLUDED IN ABOVE			---
Low voltage wiring for communications and cable	---				---
LED lighting in storefront awning	---				---
Site lighting in rear yard - basic	---				---
Interior lighting and controls for individual spaces	---				---
Access control systems	---				---
ELECTRICAL SUBTOTAL	\$0	\$532,740	\$129,087	\$455,595	\$0



APPENDICES

FORMER SULLIVAN OPERA HOUSE
PREDEVELOPMENT PROJECT
MARCH 2015

APPENDIX A

The Secretary of the Interior's Standards for Rehabilitation¹

The Secretary of the Interior's Standards for Rehabilitation are ten basic principles created to help preserve the distinctive character of a historic building and its site, while allowing for reasonable change to meet new needs.

The Standards (**36 CFR Part 67**) apply to historic buildings of all periods, styles, types, materials, and sizes. They apply to both the exterior and the interior of historic buildings. The Standards also encompass related landscape features and the building's site and environment as well as attached, adjacent, or related new construction.

The Standards are applied to projects in a reasonable manner, taking into consideration economic and technical feasibility.

1. 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.
2. 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.
3. 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.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. 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.
7. 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.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. 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.
10. 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.

APPENDIX B

National Park Service Preservation Briefs

Hard copies of the Preservation Briefs may be purchased from the Government Printing Office or viewed on line at <http://www.nps.gov/history/hps/tps/briefs/presbhom.htm>.

1. The Cleaning and Waterproof Coating of Masonry Buildings
2. Repointing Mortar Joints in Historic Brick Buildings
3. Conserving Energy in Historic Buildings
4. Roofing for Historic Buildings
5. Preservation of Historic Adobe Buildings
6. Dangers of Abrasive Cleaning to Historic Buildings
7. The Preservation of Historic Glazed Architectural Terra-Cotta
8. Aluminum and Vinyl Siding on Historic Woodwork
9. The Repair of Historic Wooden Windows
10. Exterior Paint Problems on Historic Woodwork
11. Rehabilitating Historic Storefronts
12. The Preservation of Historic Pigmented Structural Glass
13. The Repair and Thermal Upgrading of Historic Steel Windows
14. New Exterior Additions to Historic Buildings: Preservation Concerns
15. Preservation of Historic Concrete: Problems and General Approaches
16. The Use of Substitute Materials on Historic Building Exteriors
17. Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character
18. Rehabilitating Interiors in Historic Buildings: Identifying Character-Defining Elements
19. The Repair and Replacement of Historic Wooden Shingle Roofs
20. The Preservation of Historic Barns
21. Repairing Historic Flat Plaster – Walls and Ceilings
22. The Preservation and Repair of Historic Stucco
23. Preserving Historic Ornamental Plaster
24. Heating, Ventilating, & Cooling Historic Buildings: Problems & Recommended Approaches
25. The Preservation of Historic Signs
26. The Preservation and Repair of Historic Log Buildings
27. The Maintenance & Repair of Architectural Cast Iron
28. Painting Historic Interiors
29. The Repair, Replacement, and Maintenance of Historic Slate Roofs
30. The Preservation and Repair of Historic Clay Tile Roofs
31. Mothballing Historic Buildings
32. Making Historic Properties Accessible
33. The Preservation and Repair of Historic Stained and Leaded Glass
34. Applied Decoration for Historic Interiors: Preserving Composition Ornament
35. Understanding Old Buildings
36. Protecting Cultural Landscapes
37. Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing
38. Removing Graffiti from Historic Masonry
39. Holding the Line: Controlling Unwanted Moisture in Historic Buildings
40. Preserving Historic Ceramic Tile Floors
41. The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront
42. The Maintenance, Repair and Replacement of Historic Cast Stone
43. The Preparation and Use of Historic Structures Reports
44. The Use of Awnings on Historic Buildings: Repair, Replacement and New Design
45. Preserving Historic Wooden Porches
46. The Preservation and Reuse of Historic Gas Stations
47. Maintaining the Exterior of Small and Medium Size Historic Buildings



STRUCTURAL OBSERVATION REPORT Former Sullivan Hardware and Opera House Building

On September 16th, the former Sullivan Hardware and Opera House Building at 252-254 Main Street, McGregor, Iowa was visited to observe the condition of the structural elements that were accessible.

Initially, I met with Doug Steinmetz (Architect). We reviewed the various levels but access to many areas was limited, because the first level framing had partially collapsed along with associated portions of the mezzanines.

The following sub-categories describe the structural systems, list observations / findings, and provide recommendations / professional opinions:

Structural Systems:

- Roof Framing:
 - Northeast Third: Wood decking on 2x wood joists bearing on masonry walls. Wood brackets were installed on the northwest side to extend the roof framing.



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1

Structural Observation Report
Former Sullivan Hardware and Opera House Building
Report Date: October 17, 2014

- Southwest Two-thirds Wood decking on 2x wood joists bearing on masonry walls (northeast and southwest), and a multi-span steel truss in the middle. The truss was connected to a built-up wood beam by a series of bolts bent into a u-shape to allow the joists to bear directly on the hanging wood beam. The truss was supported by a series of internal steel columns. Wood brackets were installed on the northwest side to extend the roof framing.



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2

Structural Observation Report
Former Sullivan Hardware and Opera House Building
Report Date: October 17, 2014



- Second Floor Framing:
 - Northeast Third: The floor framing was not accessible, but was most likely comprised of wood decking, wood joists and masonry bearing walls.
 - Southwest Two-thirds: The floor framing was not accessible, but it was most likely comprised of wood decking, wood joists and masonry bearing walls.
- Mezzanine Framing:
 - Northeast Third: The mezzanine construction was not accessible, but it was most likely comprised of wood decking/sheathing, wood joists and wood/masonry bearing walls.
 - Middle Third: Access to the mezzanine was limited, but it was comprised of wood decking/sheathing on wood joists framing into wood beams and bearing walls supported by wood columns.



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3

Structural Observation Report
Former Sullivan Hardware and Opera House Building
Report Date: October 17, 2014

- Southwest Third: Access to the mezzanine was limited, but it was comprised of wood decking/sheathing on wood joists framing into wood beams and bearing walls supported by wood columns.



- First Floor Framing:
 - Northeast Third: The basement level was not accessible, but the first floor framing was most likely comprised of wood decking, wood joists, wood beams, wood columns and masonry bearing walls. New wood framing was recently installed as a strut to brace the exterior foundation wall.



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4

Structural Observation Report
Former Sullivan Hardware and Opera House Building
Report Date: October 17, 2014

- Middle Third: The basement level was not accessible, but the first floor framing was most likely comprised of wood decking, wood joists, wood beams, wood columns and masonry bearing walls.



- Southwest Third: The basement level was not accessible, but the first floor framing was most likely comprised of wood decking, wood joists, wood beams, wood columns and masonry bearing walls.



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5

Structural Observation Report
Former Sullivan Hardware and Opera House Building
Report Date: October 17, 2014

- Walls:
 - Exterior: Multi-wythe brick walls on northeast, northwest, southeast and southwest.
 - Interior: Multi-wythe brick walls from foundation to parapet above of the roof between the Northeast Third and the Middle Third. Multi-wythe brick walls from foundation to second floor between the Middle Third and the Southwest Third.



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6

Structural Observation Report
Former Sullivan Hardware and Opera House Building
Report Date: October 17, 2014

Observations and Findings:

- Roof Framing:
 - Northeast Third: No comments
 - Southwest Two-thirds:
- Second Floor Framing:
 - Northeast Third: An elevator shaft was installed at the northern corner.
 - Southwest Two-thirds: The floor slopes slightly near the southeast side (Main Street side) insinuating the location of some sort of old aisle or passageway.
- Mezzanine Framing:
 - Northeast Third: The construction was partially supported by the collapsed first floor framing, so it was precariously dangling from the surrounding construction that remained.
 - Middle Third: The construction was partially supported by the collapsed first floor framing, so it was partially collapsed as well.
 - Southwest Third: The construction was partially supported by the collapsed first floor framing.
- First Floor Framing:
 - Northeast Third: Approximately one-half of the floor framing was collapsed.
 - Middle Third: Approximately two-thirds of the floor framing was collapsed.
 - Southwest Third: Approximately one-fifth of the floor framing was collapsed.



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7

Structural Observation Report
Former Sullivan Hardware and Opera House Building
Report Date: October 17, 2014

- Walls:
 - Exterior:
 - The northwest wall was plastered.
 - The northern corner exhibits cracks and deterioration.
 - The northeast side was plastered near the base, painted on the southern half, and exhibited numerous spalled brick.
 - The southwest was plastered, but some of the areas were deteriorated.
 - A vertical crack developed in the plaster near the west corner.
 - Various old steel brackets and braces remain adhered to the exterior on the southeast side.



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8

Structural Observation Report
Former Sullivan Hardware and Opera House Building
Report Date: October 17, 2014

• Miscellaneous:

- Fire Escape: An existing exterior steel fire escape was added to the northwest side of the building near the west corner.



- Gangway: The existing sidewalk construction between the northwest side of the building and the storm drainage trench appears to have settled.

STORM DRAINAGE TRENCH

SIDEWALK



Recommendations and Professional Opinions:

- Roof Framing:
 - Northeast Third: No comments.
 - Southwest Two-thirds: No comments.
- Second Floor Framing:
 - Northeast Third: The existing elevator shaft will most likely need to be filled in with new framing.
 - Southwest Two-thirds: Re-support existing second floor framing as required near old staircase opening.



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9

Structural Observation Report
Former Sullivan Hardware and Opera House Building
Report Date: October 17, 2014

• Mezzanine Framing:

- Northeast Third: Remove mezzanine construction.
- Middle Third: Remove mezzanine construction. Re-support existing second floor framing as required near old staircase opening.
- Southwest Third: Remove mezzanine construction.

• First Floor Framing:

- At appears obvious that repeated flooding of the basement level caused the surrounding floor framing to deteriorate and collapse. To avoid this recurring problem, remove the deteriorated framing members, fill the basement level with compacted granular material, and install a concrete slab-on-grade.

• Walls:

- Repair brickwork at the north corner.
- Replace spalled bricks on the northeast side.
- Caulk the vertical crack in the plaster near the north corner.
- Patch the plaster on the southwest side.
- Remove steel brackets and braces on the southeast side.

• Miscellaneous:

- Fire Escape: Remove existing exterior fire escape.
- Gangway: Provide a positive means of storm water drainage by adding concrete to raise the level of the sidewalk, or by cutting scupper-like openings into the top of the adjacent trench. Re-connect and/or provide new downspouts to divert roof storm water away from the gangway.

Structural Observations Performed by:

Hooting Coyote LLC

Todd Birkel
Structural Engineer

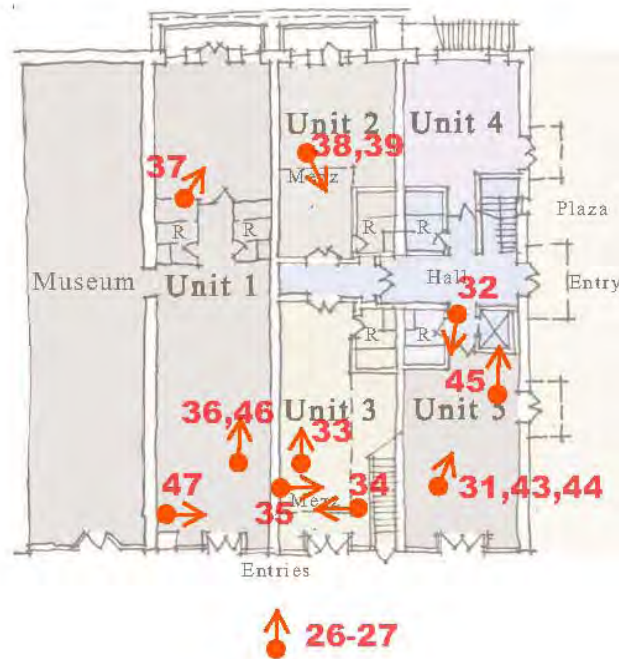
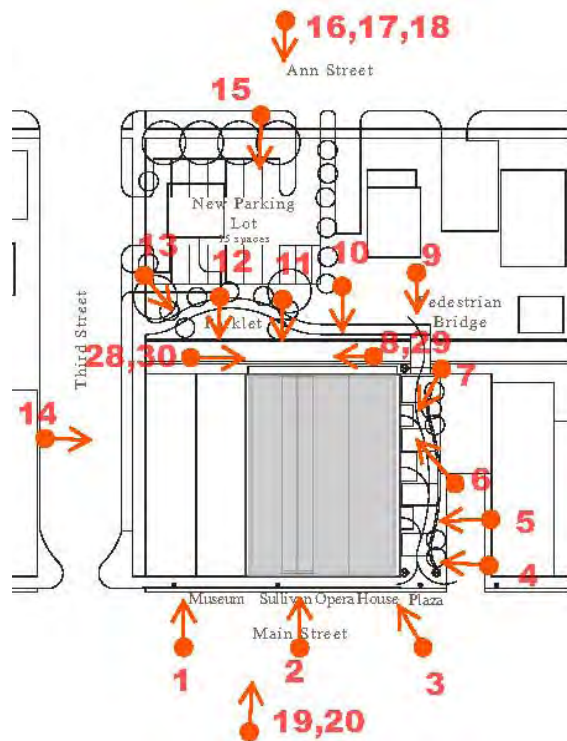


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Website: <http://hootingcoyote.com/>



10

PHOTO LOCATION KEY for PHOTOGRAPHS of EXISTING BUILDING



APPENDIX D



PHOTO 1: NEIGHBORING BUILDINGS TO WEST - PRIMARY FAÇADES 2014



PHOTO 2: PRIMARY FAÇADE 2014



PHOTO 3: VIEW INTO LOT EAST OF BUILDING



PHOTO 4: PARTIAL EAST FACADE.



PHOTO 5: PARTIAL EAST FACADE



PHOTO 6: PARTIAL EAST FACADE

APPENDIX D



PHOTO 7: LOT EAST OF BUILDING



PHOTO 8: NORTH FAÇADE



PHOTO 9: PARTIAL NORTH FAÇADE



PHOTO 10: PARTIAL NORTH FAÇADE



PHOTO 11: PARTIAL NORTH FAÇADE

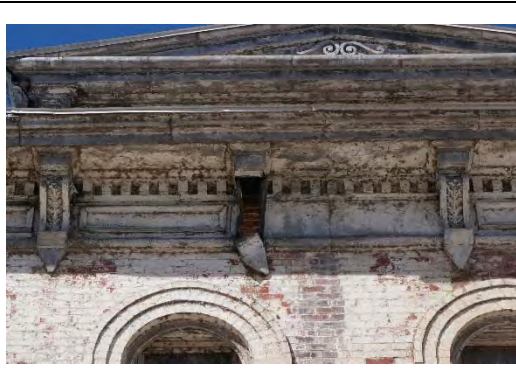
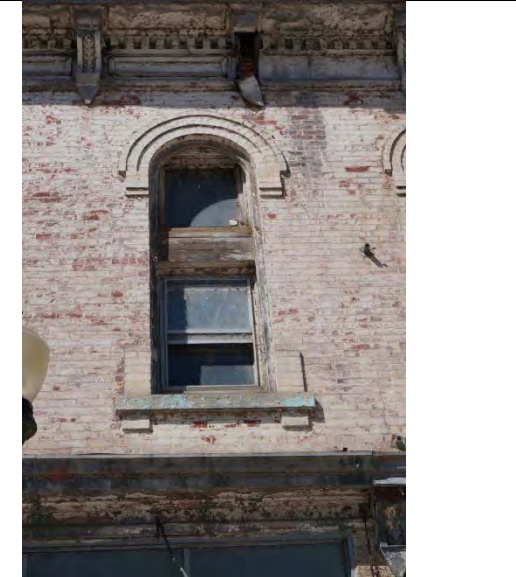


PHOTO 12: NORTH FAÇADE-
NEIGHBORING BUILDINGS

APPENDIX D

		
PHOTO 13: PARTIAL WEST FAÇADE	PHOTO 14: WEST FAÇADE ABOVE ROOFLINE	PHOTO 15: NORTH FAÇADE VIEW ACROSS LOT TO NORTH
		
PHOTO 16: OVERVIEW OF ROOF	PHOTO 17: DETAIL OF ROOF STRUCTURE OVER TRUSS USED TO CREATE CLEAR SPAN ON SECOND FLOOR (ADDED CA 1905?)	PHOTO 18: VIEW FROM NW. LOT PROPOSED FOR PARKING IN FOREGROUND

APPENDIX D

		
PHOTO 19: OVERVIEW OF BLOCK	PHOTO 20: OVERVIEW OF BLOCK	PHOTO 21: BUILDING CORNICE
		
PHOTO 22: TYPICAL WINDOW ON PRIMARY FACADE	PHOTO 23: DETAIL OF STOREFRONT CORNICE	PHOTO 24: DETAIL OF BUILDING CORNICE

APPENDIX D



PHOTO 25: UPPER STORY-PRIMARY FACADE



PHOTO 26: DETAIL OF STOREFRONT



PHOTO 27: DETAIL OF STOREFRONT CORNICE



PHOTO 28: STORM SEWER NORTH OF BUILDING



PHOTO 29: WALKWAY BETWEEN BUILDING AND STORM SEWER IN NORTH YARD

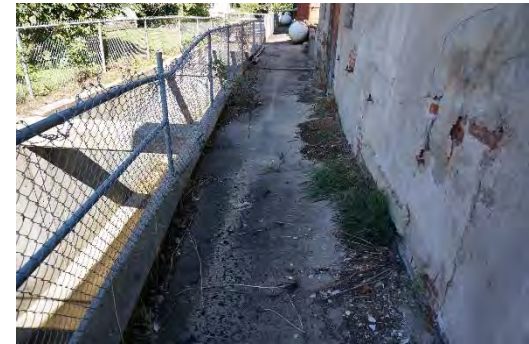


PHOTO 30: WALKWAY BETWEEN BUILDING AND STORM SEWER IN NORTH YARD

APPENDIX D



PHOTO 31: DEBRIS IN BUILDING BEFORE CLEANOUT



PHOTO 32: DEBRIS IN BUILDING BEFORE CLEANOUT



PHOTO 33: COLLAPSED FIRST FLOOR



PHOTO 34: DEBRIS IN BUILDING BEFORE CLEANOUT



PHOTO 35: DEBRIS IN BUILDING BEFORE CLEANOUT



PHOTO 36: DEBRIS IN BUILDING BEFORE CLEANOUT

APPENDIX D



PHOTO 37: COLLAPSED FIRST FLOOR



PHOTO 38: COLLAPSED MEZZANINE



PHOTO 39: COLLAPSED MEZZANINE AND FIRST FLOOR



PHOTO 40: COLUMN DISCOVERED IN APT PARTITION IN FORMER BALLROOM



PHOTO 41: GREY AND RED STEEL COL AT NORTH WALL OF SECOND FLOOR



PHOTO 42: COLUMN DISCOVERED IN APT PARTITION IN FORMER BALLROOM

APPENDIX D



PHOTO 43: FIRST FLOOR AFTER DEBRIS REMOVAL



PHOTO 44: WOOD CEILING OF FIRST FLOOR SPACES



PHOTO 45: STRUCTURAL BRACING AT FIRST FLOOR LINE IN AREA OF COLLAPSED FLOOR



PHOTO 46: WOOD CEILING OF FIRST FLOOR SPACES



PHOTO 47: INTERIOR OF EXISTING STOREFRONT



PHOTO 48: DEBRIS AND PIGEON GUANO SECOND FLOOR APARTMENTS

APPENDIX D



PHOTO 49: DEBRIS AND PIGEON GUANO
SECOND FLOOR APARTMENTS



PHOTO 50: SECOND FLOOR APT CEILINGS
FRAMED LOWER THAN HISTORIC CEILING



PHOTO 51: DEBRIS AND PIGEON GUANO
SECOND FLOOR APARTMENTS



PHOTO 52: TYPICAL SECOND FLOOR
APARTMENT FINISHES



PHOTO 53: TYPICAL SECOND FLOOR
APARTMENT FINISHES



PHOTO 54: COLLAPSED CEILING
FRAMING AND FINISHES IN APT AT ROOF
LEAK

APPENDIX D



PHOTO 55: TYPICAL SECOND FLOOR
APARTMENT FINISHES



PHOTO 56: STRUCTURAL HANGER AT
BUILDING CENTER BEAM



PHOTO 57: STRUCTURAL HANGER AT
BUILDING CENTER BEAM



PHOTO 58: SPACE ABOVE APT CEILINGS
IN FORMER BALLROOM



PHOTO 59: SPACE ABOVE APT CEILINGS
IN FORMER BALLROOM



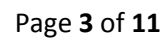
PHOTO 60: SPACE ABOVE APT CEILINGS
IN FORMER BALLROOM

APPENDIX E (Proposed Rehabilitation Drawings)



APPENDIX E (Proposed Rehabilitation Drawings)

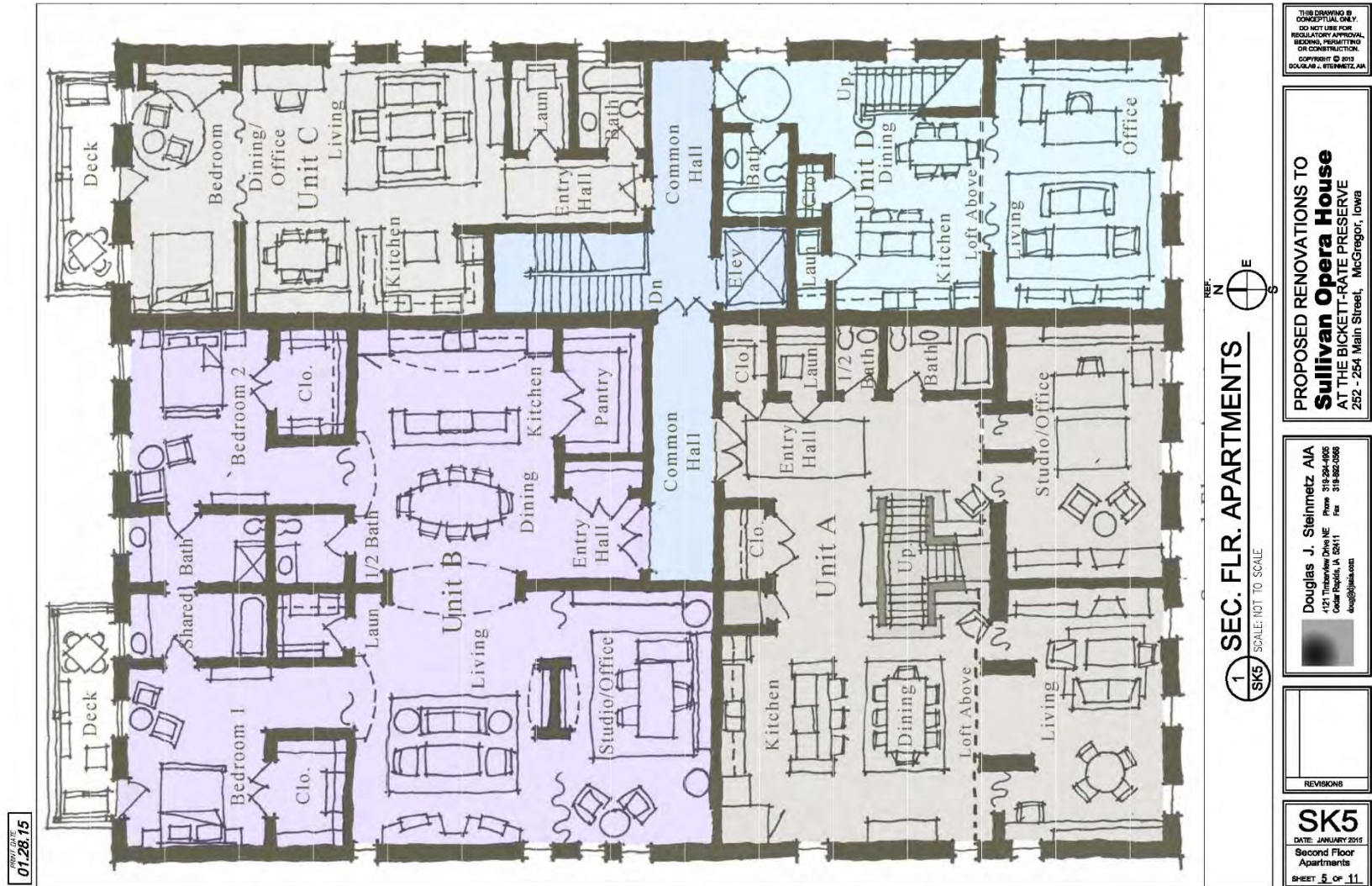




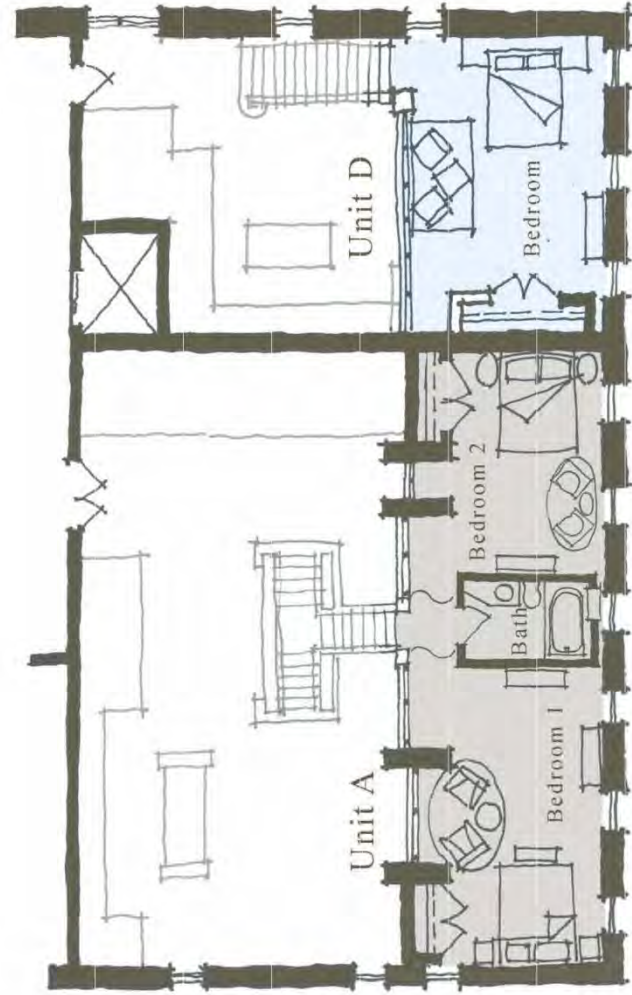
APPENDIX E (Proposed Rehabilitation Drawings)



APPENDIX E (Proposed Rehabilitation Drawings)



DATE
01.28.15



REF. N E S
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SK6 SCALE: NOT TO SCALE

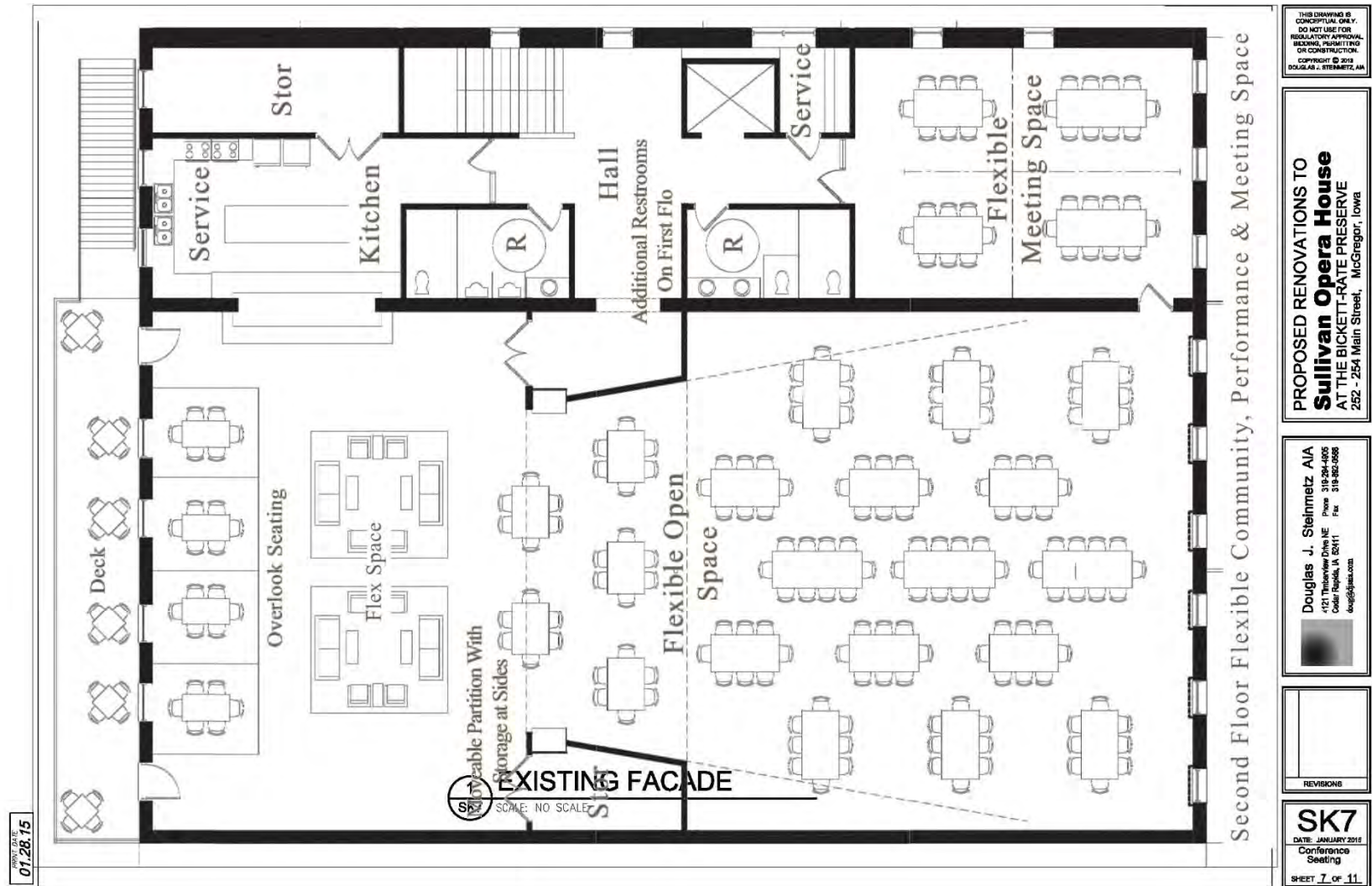
SK6
DATE: JANUARY 2015
Second Floor
Loft Areas
SHEET 6 OF 11

Douglas J. Stehmetz AIA
4121 Timberline Drive NE Phone 313-294-0065
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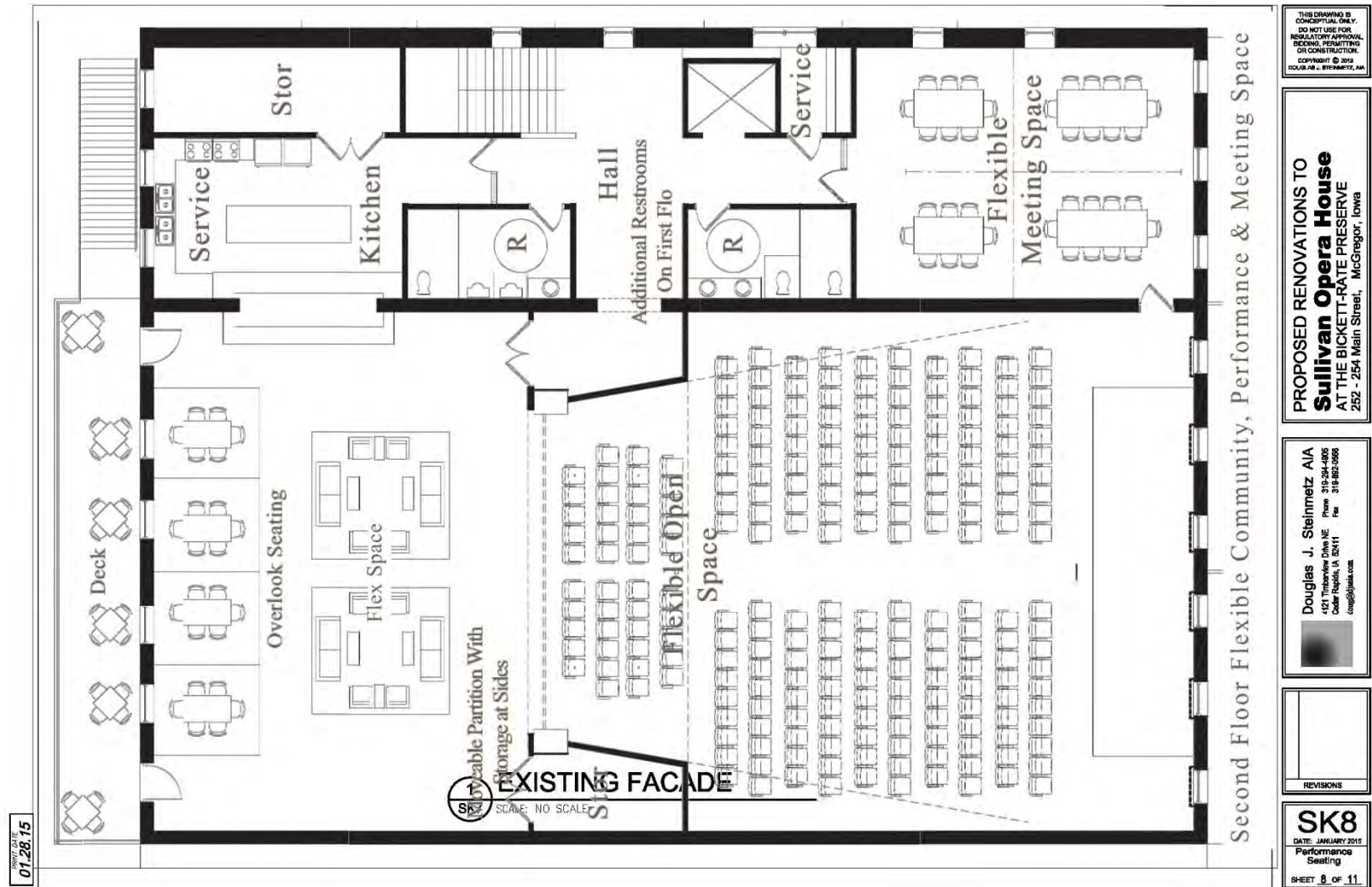
PROPOSED RENOVATIONS TO
Sullivan Opera House
AT THE BICKETT-RATE PRESERVE
252 - 254 Main Street, McGregor, Iowa

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APPENDIX E (Proposed Rehabilitation Drawings)



APPENDIX E (Proposed Rehabilitation Drawings)



APPENDIX E (Proposed Rehabilitation Drawings)



1 EXISTING FACADE
 SK7 SCALE: NO SCALE

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REVISIONS

SK9
 DATE: JANUARY 2015
 Existing
 Facade
 SHEET 9 OF 11

APPENDIX E (Proposed Rehabilitation Drawings)



1 PROPOSED FACADE
 SK8 SCALE: NO SCALE

PRINT DATE
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REVISIONS

SK10
 DATE: JANUARY 2015
 Proposed
 Facade
 SHEET 10 OF 11

APPENDIX E (Proposed Rehabilitation Drawings)



1 **FACADE WITH AWNING**
 SK9 SCALE: NO SCALE

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REVISIONS

SK11
 DATE: JANUARY 2015
 Proposed
 Facade with
 Awning
 SHEET 11 OF 11