CITY OF LA GRANDE
Landmarks Commission Regular Session

Thursday, June 8, 2023
6:00 p.m.

The meeting is available for viewing on **Facebook Live at the following link:**
https://www.facebook.com/LaGrandeCityManager

AGENDA

a. CALL TO ORDER/ROLL CALL

2. AGENDA APPROVAL
Chairperson asks if there are any additions or changes to the Agenda
(NO MOTION NEEDED)

3. CONSENT AGENDA
a. Consider: Approving Minutes of the February 9, 2023 meeting.

4. PUBLIC COMMENTS
Individuals who wish to comment on any item printed on this Agenda may do so during the time that item is under discussion. Individuals who wish to speak about non-Agenda items may do so during this portion of the Agenda. Please print your name and address on the Public Comments Sign-in Sheet, located on the podium. When addressing the Commission, speak loudly and clearly and state your name. Persons interested in providing virtual public comments shall contact City Staff at mboquist@cityoflagrande.org or by calling 541-962-1307 no later than 5:00pm the day prior to meeting to make arrangements. In the event the Chairperson does not announce a time limit for comments, each speaker is asked to confine their comments to three minutes in length, whether the comments are in-person or virtual.

5. NEW BUSINESS

6. PUBLIC HEARING
a. Consideration of Historical Appropriateness
File Number: 03-HLA-23
Applicant: EOU Inlow Hall

7. OLD BUSINESS

8. CITY PLANNER COMMENTS

9. COMMISSION COMMENTS

Kendra VanCleave
Landmarks Secretary

All meetings of the La Grande Landmarks Commission are accessible to persons with disabilities. A request for an interpreter for the hearing impaired, or for other accommodations for persons with disabilities should be made five days before the scheduled meeting by calling (541) 962-1307.

CITY OF LA GRANDE
Landmarks Commission Meeting

Regular Session

Thursday, February 9, 2023

La Grande City Hall
1000 Adams Avenue

MINUTES

COMMISSIONERS PRESENT:
Cassie Hibbert
Lindsay Costigan
Katie Boula
Rod Muilenburg
Tracey Hanshew

COMMISSIONERS ABSENT EXCUSED:

DISCUSSION/DISPOSITION

STAFF PRESENT:
Mike Boquist, City Planner
Kendra VanCleave, Planning Tech I

CITIZENS PRESENT
Brian Hjelte, Waterleaf Architecture
Sarah Hollenbeck, EOU Capital Project Mgr.
Anna Wilcox, Waterleaf Architecture
Peter Meijer, Peter Meijer Architects

CALL TO ORDER/ROLL CALL

HIBBERT called this Regular Session of the Commission to order at 6:05 p.m., and asked for Roll Call; a quorum was determined to be present.

AGENDA APPROVAL

No changes. The Agenda was approved as presented.

CONSENT AGENDA

a. Consider Minutes from December 8, 2022 meeting.

HIBBERT commented she was absent/excused at this meeting, but the Minutes reflect she called the meeting to order.
BOULA introduced the following Motion, with COSTIGAN providing the Second.

MOTION: The Minutes of the December 8, 2022 meeting be approved as amended.

USC: Unanimous

NEW BUSINESS

a. Consideration of Historical Appropriateness
1 University Blvd, 01-HLA-23
Eastern Oregon University

HIBBERT asked for Commissioner declarations or challenges. There were no declarations or challenges.

BOQUIST opened with the application requesting a determination of historic appropriateness for the Eastern Oregon University, Inlow Hall Grand Staircase demolition and reconstruction project.

BOQUIST continued the ordinance is fairly simple for properties listed on the National Register and projects. Landmarks is charged with reviewing compliance with the Secretary of Interior Standards. The State Historic Preservation Office has been involved in the design.

HIBBERT asked for the applicant's presentation.

Sarah HOLLENBECK Capital Projects Manager for EOU introduced Brian Hjelte, the Architect of Record for the project along with Anna Wilcox of Waterleaf Architects and also Peter Meijer from Peter Meijer Architect.

HJELTE gave the presentation for the project. The project had a wide range of hurdles the projects team had to tackle. The Italian Renaissance Revival staircase was listed on the National Register of Historic Places as part of the "Administration Building, Eastern Oregon State College" nomination in 1980. With the continual deterioration of the staircase due to ground movement, climate and deferred maintenance, the Grand Staircase was deemed unsafe and partially fenced off from the public. Additionally, many of the balustrades are missing and the current state of the Grand Staircase is dangerous.

The reconstruction work will be completed in accordance with the Secretary of the Interior's Standards for Reconstruction. Overall, the project will reconstruct the entirety of the Grand Staircase as accurately as possible. Construct the support system necessary to combat unstable soil, slope and climate. It will meet safety and seismic codes. The Grand Staircase will be built with improved structural supports and drainage, meet standards for the railings and guardrail and will have integrated lighting making it safer to use.

Additionally, enough of the Grand Staircase remains intact and there is sufficient and historic documentation to create an accurate restoration. The elements are cast stone with a concrete core. Originally the Grand Staircase had a fine grain rosy colored finish with a light catching aggregate. The proposed reconstruction will likely be a buff color and will try to achieve the original pigment of the Grand Staircase. The priority will be to have the on-site concrete and off-site pre-cast concrete match to compliment the color of Inlow Hall.

BOULA asked if there will be a more expanded version of the history of the Grand Staircase document for the Community. Peter MEIEJER responded they have been working with EOU for signage with a plaque near the base of the stairs.

COSTIGAN asked at a community outreach meeting she attended, if there were any funding requirements for ADA compliance. Anna WILCOX responded regarding an egress path, the stair in itself is not an egress path. The stair is a Grand Staircase and is a technical term in the Building Code. There is no ADA path specific required and didn't have to include an ADA specific stair as there are additional paths you can take to get to

campus. There were metal handrails added to the stair compliant to building code. Additionally, all the metal handrails include a controlled integrated LED light so the entire path will be lit.

COSTIGAN asked about timelines. HOLLENBECK responded currently once all permits and all the necessary approvals are into EOU, it will go out for bid. Looking at late spring early summer to get started.

HJELTE commented as soon as the demolition is done, the archeologist will do their study and report, then construction will start. During the demolition process the archeologist will be onsite.

HANSHEW asked once the demolition is done will there be a tribal representative come in. HOLLENBECK responded there will be someone on site during demolition.

COSTIGAN asked if there is a vegetation plan to mitigate root intrusions. HJELTE responded yes and several fir trees will be taken down and the root structures will be removed that go under the stair.

MEIJER commented the project has from the beginning included AINW (Archaeological Investigations Northwest). The project does have inadvertent discovery clauses in it as part of the archaeology work.

HIBBERT stated there are two goals for this meeting for the Landmarks Commission:
1. Review and approved the project based upon the adherence to SHPO.
2. Take a look at any mitigation opportunities.

HIBBERT directed the group to look at page 5 in the staff report.

BOQUIST commented the text in red under Conditions of Approval is language consistent with what SHPO is asking of the project. It's more of a reinforcing a requirement already out there.

BOULA suggested the plaque have additional details to include the interpretive aspect of it. HANSHEW asked if if it should include a land acknowledgement as part of a public history. BOULA responded yes

HIBBERT commented the technical part of this architecture is exciting and would like to recommend to salvage a balustrade and discuss how it was recast and set.

COSTIGAN introduced the following Motion with BOULA providing a Second.

MOTION: I move that the Findings of Fact and Conclusions set forth in the Staff Report be amended and that the Project be deemed historically appropriate and conditionally approved:

1. That the owner (project manager) document, with photos, all existing conditions from all elevations prior to demolition and provide such documentation to the City of La Grande Planning Division for record retention in the application file.
2. That one or more plaques be installed in a prominent location, visible to the public, that identifies the original date of construction for the Grand Staircase, as well as the date of reconstruction, along with some interpretive panels that talk about the Staircase and the process of getting it constructed.
3. That the plaques discussed above include educational elements about the historic importance "of the site" to the La Grande community, as well as the pre-European community.
4. That the plaques discussed above include a Land Acknowledgement

Recommendation (Optional): If possible, the Landmarks Commission recommends salvaging one of the hourglass balustrades and creating an exhibit feature that discusses how it was cast and set. Ideally, this would be an educational exhibit that includes a discussion on how the recreation was done and any improvements in materials and design that would make it longer lasting in new construction.

USC: Unanimous

STAFF COMMENTS:

BOQUIST commented about applying for the grant to nominate the Carnegie Library. The bid that Lindsay provided gives a good scope of work to apply for the grant. Once we get the award, it will go out for bid.

HIBBERT commented she talked to Darcy Dolge Executive Director of Arts Center East to get on the Agenda for March.

BOULA commented what the next steps are to apply. BOQUIST responded just a matter of using the City login for the National Preservation Trust Grant to apply for the June 1 round when the application is available.

COMMISSIONER COMMENTS:

HIBBERT stated the La Grande Main Street Downtown Design Committee is retaking over the review of the Façade Grant program. On March 15th there will be a training on the Landmarks Standards in hopes of providing more support to help applicants with applying for Landmarks.

HIBBERT stated she received the results from the City Council retreat on their priorities and goals and would like to put on the Agenda as a business item at the next

meeting to review. BOQUIST commented there wasn't anything Landmarks related however, once Landmarks applies for the grant, that will get included on the Monthly report, but will share the retreat items to review at the next meeting.

BOULA commented she would like to have another SHPO/Landmarks training and possibly combine with the Main Street Design Committee. BOQUIST commented he will include that as an agenda item for next meeting.

There being no further business to come before this Regular Session of the Commission, BOQUIST adjourned the meeting at 7:13p.m. The Commission is scheduled to meet again in Regular Session, Thursday, March 9, 2023, at 6:00 p.m., in the Council Chambers of City Hall, 1000 Adams Avenue, La Grande, Oregon.

ATTEST: **APPROVED:**

_____ _____

Kendra VanCleave, Department Secretary **Chairperson**

DATE APPROVED: _____

Agenda Item _6.a___
Office Use Only

CITY of LA GRANDE

LANDMARKS COMMISSION ACTION FORM

Commission Meeting Date: **June 8, 2023**

PRESENTER: **Michael J. Boquist, Community Development Director**

COMMISSION ACTION: **CONSIDERATION OF INLOW HALL RESTORATION AND RENOVATION PROJECT**

1. CHAIR: Request Commissioner declarations and challenges.
2. CHAIR: Request Staff Report
3. CHAIR: Invite Public Testimony from the Applicant, then those in Favor, in Opposition, Neutral to the proposed Application, and then Rebuttal by Applicant
4. CHAIR: Entertain Motion

   SUGGESTED MOTION: I move that the Findings of Fact and Conclusions set forth in the Staff Report be amended and that the Project (be / not be) deemed historically appropriate and (approved / conditionally approved / denied).
   - *(Identify Conditions of Approval required, if any.)*
5. CHAIR: Invite Further Commission Discussion
6. CHAIR: Ask for the Vote.

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EXPLANATION: See attached Landmarks Commission Decision Order, which includes a description of the project and the applicable Land Development Code Standards. The applicant is requesting a determination of Historic Appropriateness for the Eastern Oregon University, Inlow Hall restoration and renovation project

For this review, the applicable City standards are outlined in the Decision Order which are predominantly process related. Construction/development standards shall be in compliance with the Secretary of Interior's Standards.

(Note: The burden of proof is on the applicant. As such it is the applicant's responsibility to demonstrate and proved that Secretary of Interior's Standards for Reconstruction have been satisfied.)

If all standards are met, the Commission should approve the request. If any standards are not met, the Commission may impose conditions of approval to satisfy the requirement, then conditionally approve the application; or, deny the application if the standard cannot be satisfied with any reasonable conditions of approval. When deliberating and issuing the decision, the Commission must be clear and concise when identifying any standards that are not met and the justification for such determination.

Upon issuing a decision, the Decision Order will be modified as needed to reflect and support the Commission's decision.

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COMMISSION ACTION (Office Use Only)
☐ Motion Passed ☐ Motion Failed
☐ Action Tabled: _____

Vote: _____
Recessed: _____

CITY of LA GRANDE
THE HUB OF NORTHEASTERN OREGON

BEFORE THE CITY OF LA GRANDE
LANDMARKS COMMISSION

LAND USE APPLICATION(S): *Historic Landmarks Review, File Number 03-HLA-23*

APPLICANT(S): *Eastern Oregon University*

SITE LOCATION: *One University Boulevard, T3S, R38E, Section 08, Tax Lot 100*

ORDER OF APPROVAL (Staff Recommendation)

I. NATURE OF APPLICATION

The applicant is requesting a determination of Historic Appropriateness for the Eastern Oregon University, Inlow Hall building restoration project, which includes a full roof replacement, chimney removal, inserting windows in the north elevation concrete archways, replacing all windows, updates to first floor entries and heating elements, reconfiguring the second floor, refinishing the north and south elevation primary entrance doors, repairing Juliet balconies, and limited below grade work for landscaping.

II. PUBLIC HEARING

A public hearing will be held on the above application before the City of Landmarks Commission on June 08, 2023. The application, staff report and all testimony submitted are part of the record.

III. FINDINGS OF FACT

A. GENERAL FACTS

1. Inlow Hall is a historic landmark listed in the National Register of Historic Places.
2. The applicant is proposing the following renovations, repairs and/or improvements:
    - A full roof replacement;
    - Chimney removal;
    - Inserting windows in the north elevation concrete archways;
    - Replacing all windows;
    - Updates to first floor entries and heating elements;
    - Reconfiguring the second floor;
    - Refinishing the north and south elevation primary entrance doors;
    - Repairing Juliet balconies; and,
    - Limited below grade work for landscaping.
3. See applicant's submittal for the full project scope, plans, and a copy of the National Register listing.

B. STANDARDS – Land Development Code Ordinance 3525, Series 2021

Section 3.5.002(C) – Review of Land Use Requests

1. All land use requests affecting designated and formally nominated landmarks shall first be submitted to the Landmarks Commission for review and recommendation before action is taken by the appropriate decision-making body.
2. The Landmarks Commission comment shall be limited to anticipated impacts, if any, to the integrity and character of the historic landmark being affected.
3. The recommendation of the Landmarks Commission shall be forwarded to the appropriate body making the final decision for their consideration.

Section 3.5.003(D) – Results of Designation to Historic Sites List

4. If a historic site is to be demolished or extensively altered, efforts will be made to document its physical appearance before that action takes place.

   a. The City will delay issuing a demolition permit and will notify the owner of the building or site, who will take responsibility for the documentation.

   b. Documentation will include, at a minimum, exterior photographs (both black-and-white and color slides) of all elevations of the building. When possible, both exterior and interior measurements of the building will be made in order to provide an accurate floor plan drawing of the building.

   c. The Commission may require, as a condition of approval, that the owner complete documentation of the building or site prior to the construction and/or demolition.

Finding: The application submittal includes several photographs that appear sufficient for documenting the existing conditions of the building's exterior. No photographs were provided of the interior of the building where the floorplan is proposed to be reconfigured.

The National Register listing states that *"doors and trim in public areas have not been replaced and nearly all retain their original brasses."* It is recommended that the Commission discuss the proposed interior renovations with the applicant to understand how existing historic doors, trim, etc. will be protected or reused in the floorplan reconfiguration.

Section 3.5.00(E) – Results of Designation to Historic Landmarks Register and Requirement for Certificates of Appropriateness

5. Certificates of Appropriateness shall be required for alterations such as but not limited to:

   a. Any construction that requires a Building Permit;

   b. Removal and replacement or alteration of architectural detailing, such as porch columns, railing, window moldings, cornices and siding;

   c. Relocation of a structure or object on the same site or to another site;

   d. Construction of additions or decks;

   e. Alteration or construction of accessory structures, such as garages, carports, sheds, etc.;

   f. Alteration of windows and doors, including replacement or changes in fenestration patterns;

   g. Construction or alteration of porches;

   h. Masonry work, including, but not limited to, tuckpointing, sandblasting and chemical cleaning;

   i. Construction or alteration of site features including, but not limited to, fencing, walls, paving and grading;

   j. Installation or alteration of any exterior sign;

   k. Any demolition;

   l. Change of exterior paint color, and

   m. New Construction.

Section 3.5.00(I) – Final Decision

1. Approval

   If the Landmarks Commission approves an application, a Certificate of Appropriateness shall be issued and the owner may proceed to rehabilitate or demolish the building or site after first obtaining the necessary permits from the Building Division. The Commission may require, as a condition of approval, that the owner provide the Commission with documentation of the physical appearance of the building including black and white photographs and color slides of each building elevation, and exterior and interior measurements of the building.

IV. CONCLUSIONS

Based on the Findings of Fact above, the Landmarks Commission concludes that the project (meets/does not meet) the standards provided in Land Development Code Ordinance 3252, Series 2021, and the Secretary of Interior's Standards for Reconstruction, as discussed in the Findings above.

V. ORDER AND CONDITIONS OF APPROVAL

Based on the Findings of Fact above, the Landmarks Commission concludes that the project (is/is not) historically appropriate and (approves, conditionally approves, denies) the project subject to the following:

1. That the owner (project manager) document, with photos, all existing conditions of the interior and exterior impacted by the project prior to renovations and provide such documentation to the City of La Grande Planning Division for record retention in the application file.

THE SECRETARY OF THE INTERIOR'S **STANDARDS** FOR THE TREATMENT OF HISTORIC PROPERTIES

WITH

GUIDELINES FOR PRESERVING, REHABILITATING, RESTORING & RECONSTRUCTING HISTORIC BUILDINGS

U.S. Department of the Interior
National Park Service
Technical Preservation Services

Under the National Historic Preservation Act (NHPA), the Secretary of the Interior is responsible for establishing professional standards and for providing guidance on the preservation of the nation's historic properties. *The Secretary of the Interior's Standards for the Treatment of Historic Properties* apply to all grants-in-aid projects assisted through the Historic Preservation Fund (authorized by the NHPA) and are intended to be applied to a wide variety of resource types, including buildings, sites, structures, objects, and districts. The Standards address four treatments: preservation, rehabilitation, restoration, and reconstruction. The treatment Standards, developed in 1992, were codified as 36 CFR Part 68 in the July 12, 1995, Federal Register (Vol. 60, No. 133). They replaced the 1978 and 1983 versions of 36 CFR Part 68, entitled *The Secretary of the Interior's Standards for Historic Preservation Projects.* The revised Guidelines herein replace the Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, published in 1995 to accompany the treatment Standards.

The Secretary of the Interior's Standards for the Treatment of Historic Properties are regulatory only for projects receiving Historic Preservation Fund grant assistance and other federally-assisted projects. Otherwise, these Guidelines are intended to provide general guidance for work on any historic building.

Another regulation, 36 CFR Part 67, focuses on "certified historic structures" as defined by the Internal Revenue Service Code of 1986. The Standards for Rehabilitation cited in 36 CFR Part 67 should always be used when property owners are seeking certification for federal tax benefits.

THE SECRETARY OF THE INTERIOR'S **STANDARDS** FOR THE TREATMENT OF HISTORIC PROPERTIES WITH **GUIDELINES** FOR PRESERVING, REHABILITATING, RESTORING & RECONSTRUCTING HISTORIC BUILDINGS

Revised by Anne E. Grimmer

from *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings*
Kay D. Weeks and Anne E. Grimmer (1995)

U.S. Department of the Interior
National Park Service
Technical Preservation Services
Washington, D.C.

2017

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New Additions and Related New Construction. Private Residence, Washington, DC, Cunningham/Quill Architects. Photo: © Maxwell MacKenzie.

CHAPTER HEADS

Preservation. Old Santa Fe Trail Building (National Park Service Intermountain Regional Office), Santa Fe, NM. This adobe building was designed by John Gaw Meem in the Spanish-Pueblo Revival style, and constructed for the National Park Service through the auspices of the Civilian Conservation Corps (CCC) and the Works Project Administration (WPA) in 1939. Photo: MRWM Landscape Architects.

Rehabilitation. The Arcade, Providence, RI, 1828. Photo: Northeast Collaborative Architects, Ben Jacobson, photographer.

Restoration. Montpelier, Montpelier Station, VA. National Trust for Historic Preservation, Administered by The Montpelier Foundation. Photo: Courtesy The Montpelier Foundation.

Reconstruction. The Cathedral of Saint Michael the Archangel, Sitka, AK, built early 1840s, reconstructed 1961. Photo: Barek at Wikimedia Commons.

Photographs not individually credited are from National Park Service files.

ACKNOWLEDGEMENTS

This edition of *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* has been produced in part to ensure that the National Park Service continues to fulfill its responsibility to promote the preservation of the historic buildings that are part of the nation's cultural heritage. This has been a collaborative effort undertaken by the office of Technical Preservation Services (TPS) in the National Park Service, with the assistance of other National Park Service programs, State Historic Preservation Offices (SHPO), the Advisory Council on Historic Preservation, Federal Agency Historic Preservation Officers, the National Trust for Historic Preservation, and others. The comments and suggestions provided by these agencies and organizations, together with important contributions from the TPS professional staff, have been invaluable in the development of this revised and updated guidance on preserving, rehabilitating, restoring, and reconstructing historic buildings that accompany *The Secretary of the Interior's Standards for the Treatment of Historic Properties.*

PREFACE

The year 2016 was significant as the Centennial of the National Park Service, which was established as a new bureau within the Department of the Interior by the Organic Act on August 25, 1916. As directed in this legislation, the National Park Service has served for one hundred years as steward of the "Federal areas known as national parks, monuments and reservations…to conserve the scenery and the natural and historic objects and the wild life therein and to…leave them unimpaired for the enjoyment of future generations."

The year 2016 also marked the 50th anniversary of the passage of the National Historic Preservation Act on October 15, 1966. The Act increased the scope and responsibilities of the National Park Service with regard to the preservation of cultural resources. The National Historic Preservation Act charges the National Park Service (through authority delegated by the Secretary of the Interior) to establish and administer a national historic preservation program and to develop and promulgate standards and guidelines for the treatment of historic properties.

The Secretary of the Interior's Standards for Historic Preservation Projects were first issued in 1978. In 1979 they were published with Guidelines for Applying the Standards and reprinted in 1985. The Standards were revised in 1992, when they were retitled *The Secretary of the Interior's Standards for the Treatment of Historic Properties*.

The Standards were codified in the Federal Register in 1995, the same year that they were published with guidelines as *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*. These Standards and Guidelines provide a critical part of the framework of the national preservation program. They are widely used at the federal, state, and local levels to guide work on historic buildings, and they also have been adopted by Certified Local Governments and historic preservation commissions across the nation.

In 2010 the National Park Service issued *A Call to Action: Preparing for a Second Century of Stewardship and Engagement*, a plan to chart a path for its next 100 years. This plan identified a number of actions with the goal to "preserve America's special places in the next century," which included updating National Park Service policies and guidance. The project to update *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* was undertaken as part of this broader effort.

Since these Guidelines were first published in 1995, a greater number of buildings and building types, telling a broader range of stories that are part of the nation's heritage, have been recognized as "historic"

and eligible for listing in the National Register of Historic Places. These guidelines have been updated and expanded to address the treatment of these buildings constructed with newer materials and systems from the mid- and late-20th century.

The updated Guidelines have the same organization as the prior version, beginning with an introduction and a historical overview, followed by chapters that focus on each of the four treatments: preservation, rehabilitation, restoration, and reconstruction. The historical overview has been expanded; not only has the information on historic materials, systems, features, and special issues that comprised the previous edition been more fully developed, but new entries have been added on glass, paint and other coatings, composite materials, imitative materials, and curtain walls.

In each of the four chapters, the "Recommended" and "Not Recommended" treatments have been updated and revised throughout to ensure that they continue to promote the best practices in preservation. The section on exterior additions to historic buildings in the Rehabilitation Guidelines has been broadened also to address related new construction on a building site. A section on code-required work is now included in all of the chapters. "Energy Efficiency" has been eliminated, since it is more fully covered by the guidance provided on sustainability in *The Secretary of the Interior's Standards for Rehabilitation and Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings* (published in 2011), which has general applicability to all the treatments and is incorporated here by reference. Sections on "Resilience to Natural Hazards" have been added, but these topics will be more fully addressed in separate documents and web features. Finally, the updated Guidelines feature all new, and many more, illustrations in color.

Herewith Technical Preservation Services issues the National Park Service Centennial edition of *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*, updated and revised in recognition of the 50th anniversary of the National Historic Preservation Act, to ensure that the preservation guidance for historic buildings provided by the National Park Service continues to be meaningful and relevant in the 21st century.

Technical Preservation Services
National Park Service

Technical Preservation Services
National Park Service

The office of Technical Preservation Services (TPS) in the Cultural Resources directorate of the National Park Service is responsible for developing and promulgating preservation standards and guidance specifically as it relates to historic buildings. TPS has produced an extensive amount of technical, educational, and policy guidance on the maintenance and preservation of historic buildings. TPS developed the original and current versions of *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*. The many technical publications and web features on preserving historic buildings prepared by TPS are well known, especially the *Preservation Briefs* and the *Preservation Tech Notes* series. It is not feasible to include a complete list here of all the materials available from TPS because of the sheer volume of information. Materials developed by TPS are available in printed form and/or online from the TPS website at https://www.nps.gov/tps (or search for Technical Preservation Services at https://www.nps.gov). TPS also administers the Federal Historic Preservation Tax Incentives Program, which encourages private sector investment in the rehabilitation and reuse of historic buildings.

INTRODUCTION

Using the Standards and Guidelines for Preservation, Rehabilitation, Restoration, and Reconstruction Projects

The Secretary of the Interior's Standards for the Treatment of Historic Properties address four treatments: preservation, rehabilitation, restoration, and reconstruction. As stated in the regulations (36 CFR Part 68) promulgating the Standards, "one set of standards ...will apply to a property undergoing treatment, depending upon the property's significance, existing physical condition, the extent of documentation available, and interpretive goals, when applicable. The Standards will be applied taking into consideration the economic and technical feasibility of each project." These Standards apply not only to historic buildings but also to a wide variety of historic resource types eligible to be listed in the National Register of Historic Places. This includes buildings, sites, structures, objects, and districts.

Guidelines, however, are developed to help apply the Standards to a specific type of historic resource. Thus, in addition to these Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings, there are also guidelines for cultural landscapes, historic lighthouses, historic vessels, historic furnished interiors, and historic covered bridges.

The purpose of *The Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* is to provide guidance to historic building owners and building managers, preservation consultants, architects, contractors, and project reviewers prior to beginning work. It is always recommended that preservation professionals be consulted early in any project.

The Guidelines are intended as an aid to assist in applying the Standards to all types of historic buildings. They are not meant to give case-specific advice or address exceptions or unusual conditions. They address both exterior and interior work on historic buildings. Those approaches to work treatments and techniques that are consistent with The Secretary of the Interior's Standards for the Treatment of Historic Properties are listed in the "Recommended" column on the left; those which are inconsistent with the Standards are listed in the "Not Recommended" column on the right.

There are four sections, each focusing on one of the four treatment Standards: Preservation, Rehabilitation, Restoration, and Reconstruction. Each section includes one set of Standards with accompanying Guidelines that are to be used throughout the course of a project.

Preservation *is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project. However, new exterior additions are not within the scope of this treatment.* The Standards for Preservation require retention of the greatest amount of historic fabric along with the building's historic form.

Rehabilitation *is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.* The Rehabilitation Standards acknowledge the need to alter or add to a historic building to meet continuing or new uses while retaining the building's historic character.

Restoration *is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.* The Restoration Standards allow for the depiction of a building at a particular time in its history by preserving materials, features, finishes, and spaces from its period of significance and removing those from other periods.

Reconstruction *is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.* The Reconstruction Standards establish a limited framework for recreating a vanished or non-surviving building with new materials, primarily for interpretive purposes.

The Guidelines are introduced with a brief overview of the primary materials used in historic buildings; the exterior and interior architectural features and systems; the building's site and setting; code-compliance requirements regarding accessibility and life-safety resilience to natural hazards; sustainability; and new additions and related new construction. This overview establishes the format of the Guidelines that follow.

Choosing an Appropriate Treatment for the Historic Building

The Guidelines are intended to promote responsible preservation practices that help protect the 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 and Guidelines provide a consistent philosophical approach to the work.

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

Level of Significance. National Historic Landmarks, designated for their "exceptional significance in American history," and other properties important for their interpretive value may be candidates for *Preservation* or *Restoration*. *Rehabilitation*, however, is the most commonly used treatment for the majority of historic buildings *Reconstruction* has the most limited application because so few resources that are no longer extant can be documented to the degree necessary to accurately recreate the property in a manner that conveys its appearance at a particular point in history.

Physical condition. *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 a new addition are necessary for a new use, then *Rehabilitation* is probably the most appropriate treatment.

Proposed use. Many historic buildings can be adapted for a new use or updated for a continuing use without seriously impacting their historic character. However, it may be very difficult or impossible to convert some special-use properties for new uses without major alterations, resulting in loss of historic character and even integrity.

Code and other regulations. Regardless of the treatment, regulatory requirements must be addressed. But without a sensitive design approach such work may damage a building's historic materials and negatively impact its character. Therefore, because the ultimate use of the building determines what requirements will have to be met, some potential uses of a historic building may not be appropriate if the necessary modifications would not preserve the building's historic character. This includes adaptations to address natural hazards as well as sustainability.

HISTORICAL OVERVIEW

Masonry

Stone is one of the more lasting masonry building materials and has been used throughout the history of American building construction. Stones most commonly used in historic buildings in the U.S. are quarried stone, including sandstone, limestone, marble, granite, slate, basalt, and coral stone, and gathered stone, such as fieldstone, river rock, and boulders. Types of stone differ considerably in hardness, durability, and other qualities. Building stones were usually laid with mortar, but sometimes they were laid without mortar using a dry-stack method of construction. Brick varies in size and permanence. Before 1870, brick clays were pressed into molds and were often unevenly fired. The quality of historic brick depended on the type of clay available and the brick-making technique; by the 1870s, with the perfection of an extrusion process, bricks became more uniform and durable. ***Architectural terra cotta*** is also a kiln-fired clay product popular from the late 19th century until the 1930s. Its use became more widespread with the development of steel-frame, high-rise office buildings in the early 20th century. ***Glazed ceramic architectural siding*** was also used as cladding in high-rise buildings somewhat later. ***Adobe,*** which consists of sun-dried earthen bricks, was one of the earliest building materials used in the U.S., primarily in the Southwest where it is still popular.

Mortar is used to bond together masonry units. Historic mortar was generally quite soft, consisting primarily of lime and sand with other additives. Portland cement, which creates a more rigid mortar, was first manufactured in the U.S. in the early 1870s, but it was not in common use throughout the country until the early 20th century. Thus, mortar used in buildings from around 1873 until the 1930s ranged from a traditional lime-cement mix to a variety of sand and Portland cement combinations. After this time, most mortar mixes were based on Portland cement. Like historic mortar, early ***stucco*** was also heavily lime based, increasing in hardness with the addition of Portland cement in the late 19th century.

Concrete has a long history. It is composed of sand, crushed stone, or gravel bound together with lime and, sometimes, natural hydraulic cements. As a construction material concrete is used in a variety of forms, including blocks or units, poured or cast-in-place, and precast panels. ***Cast stone*** and other manufactured products began to be used around the 1860s as substitutes for natural stone. There are also cementitious materials specific to certain regions, such as ***tabby,*** which includes crushed shells and is found primarily in coastal areas in the southeastern part of the country. In the 20th century, ***reinforced concrete*** was developed and has since become one of the most commonly used materials in modern building construction.

While masonry is one of the most durable historic building materials, it is also very susceptible to damage by exposure, improper maintenance or repairs, abrasive cleaning, or the application of non-permeable coatings.

Wood

Wood is one of the most essential materials used in American buildings of every period and style. Its many and varied attributes make it suitable for multiple uses, including structural members, siding, roofing, interior finishes, and decorative features. Many of the first structures in the earliest settlements were built with logs, which were readily available, did not require much finishing, and could be quickly erected with basic tools.

Water-powered sawmills cut logs into timbers and boards, but detailed ornamental features were generally crafted on site using hand tools until after the Civil War. Mechanized production increased the efficiency of cutting logs into timbers, boards, and more intricate components, and the structural and decorative potential of wood's use in building construction expanded. With more efficient production came lower costs, but also the standardization of ready-made moldings and assemblies for windows, doors, and decorative features. Initially, wood was primarily sourced locally, but improved transportation systems made a greater variety of wood species more accessible all over the country. With broader availability, a particular wood could be selected for its suitability in a specific application; however, local species were used most often.

The extensive use of wood in buildings can be attributed to its many properties that include strength in both tension and compression; ease with which it can be cut and shaped; capability to be connected using a variety of fasteners and adhesives; ability to be painted or varnished; and resistance to wear and weather. All of these characteristics, and some more than others, vary according to the species of wood. Although many types and species of wood used historically are no longer available, wood selection and construction practices have always capitalized on its attributes and compensated for it is weaknesses. Their resistance to decay made white oak and cedar common choices for roofing shingles, while oak and maple were frequently chosen for flooring because of their hardness. Pine and yellow poplar have often been used for siding and trim because of their straight grain and ease of milling, but they must be painted to protect them from decay.

Plywood is an engineered product formed by laminating thin sheets of wood together; it was introduced to the U.S. building industry in the early 20th century. Because plywood has greater structural potential than wood, and as a sheet can be installed more efficiently, it soon replaced boards as sheathing before being replaced itself by less-expensive ***particle board*** for many applications. By applying surface veneers and adhesives, plywood can also be used as siding or for fine interior finishes on paneling or cabinetry. ***Glued laminated timber*** (glulam), first manufactured in the 1930s, is another engineered wood material. It is an important material in mid-20th-century buildings and often used for massive arches and trusses in sports arenas and similar large, open, column-free spaces.

Many historic buildings have wood structural systems and features, such as stairs or columns. The majority of both practical and decorative features, particularly on the interior, are made of wood, such as flooring and paneling.

Metals

Metal features—including steps, porches, railings, balconies, and entire facades; cornices, siding, cladding, roofs, roof cresting, and storefronts; and doors, window sash, entablatures, and hardware—are often highly decorative as well as practical and are important in defining the overall character of historic American buildings.

Metals commonly used in historic buildings include ***lead, tinplate, terneplate, zinc, copper, bronze, brass, iron, steel, aluminum, stainless steel,*** and a variety of other ***alloys.*** Historic metal building components were often designed by highly-skilled artisans. By the late 19th century, many of these components were prefabricated and available from catalogues in standardized sizes and designs.

Wrought iron is the form in which iron was first used in America. In the beginning, most wrought-iron architectural elements were small, such as nails, tie rods, straps, and hardware. Wrought-iron features

gradually increased in size to include balconies, railings, porches, steps, and fencing. It was not used for structural components until around the mid 19th century, when manufacturing equipment became more sophisticated. ***Cast iron*** was initially imported from England. Although there were some iron-casting works established before the Revolution, by the early 19th century production had expanded to make a variety of cast-iron features. Structural cast-iron columns were first used in the 1820s, and cast-iron building fronts and decorative structural and ornamental features followed soon after. Cast and wrought iron are often used on the interior of historic buildings as both structural and decorative features, such as columns, staircases, railings, and light fixtures.

Steel, which is an alloy of iron and usually carbon, increased in popularity as manufacturing processes and production improved in the mid-19th century. Structural steel played an important role in the development of high-rise buildings and the skyscraper.

Lead was first used in historic buildings for roofing. ***Tinplate or terneplate,*** which was made by applying a lead and tin coating to sheet metal or steel, became a common roofing material after it was first produced in the 1820s. (Pure tin was rarely used as a building material because it is so soft.) The application of a ***zinc coating*** on sheet metal created ***galvanized iron***, which was used for roofing and decorative roofing features, such as steeples and roof cresting, as well as other ornamental architectural features, such as door and window hood molds, lintels, and oriel and bay windows. Prefabricated Quonset huts constructed of ***corrugated galvanized steel*** began to be manufactured during World War II for the military on the battlefield for housing, storage, and other uses.

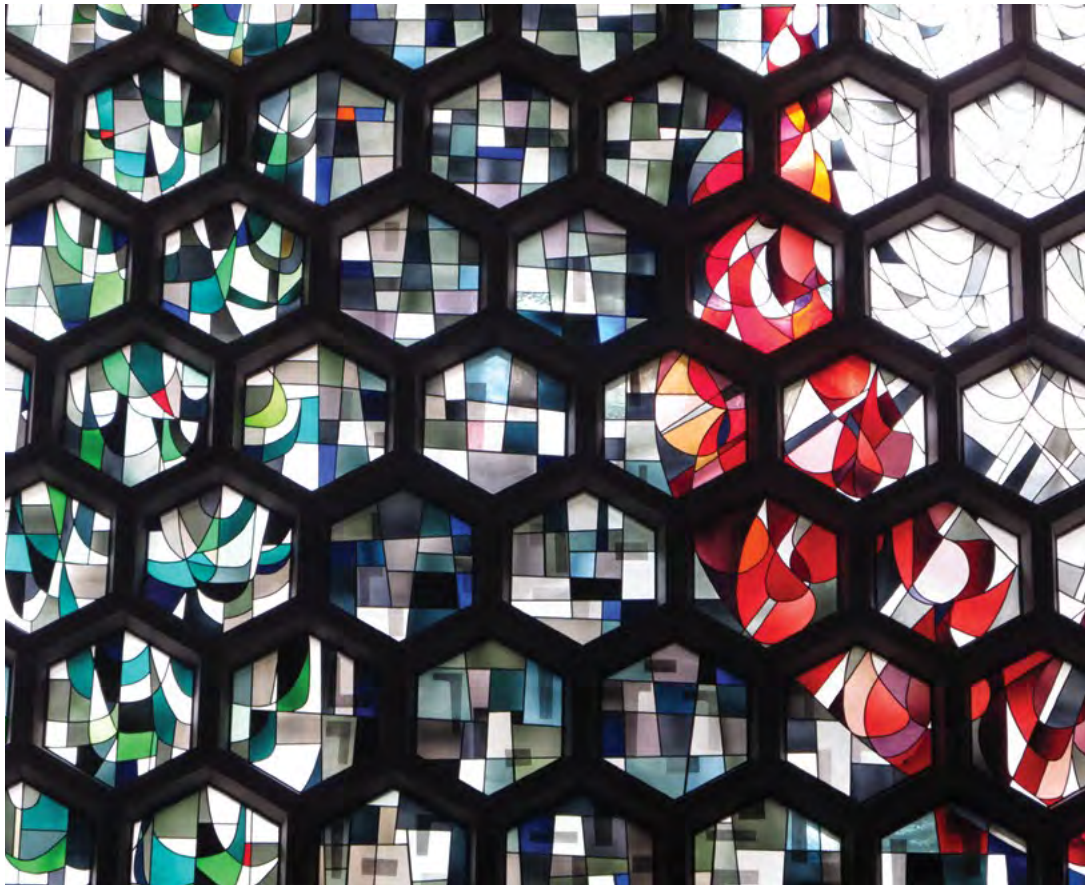
Entire pressed-metal and galvanized-iron storefronts and individual decorative features were manufactured to simulate wood, stone, or cast iron from the latter part of the 19th century into the early years of the 20th century. ***Copper*** roofs were installed on many public buildings from the 1790s through the first quarter of the 19th century. Copper continues to be used, often for porch roofs as well as gutters, downspouts, and flashing. ***Bronze*** and ***brass*** are both alloys of copper. Bronze, which weathers well, appears as entrance doors and historic storefronts. Brass, usually polished, is used for decorative interior features, such as grilles and elevator doors. **Nickel**, when employed as a building component, is in the form of an alloy, usually ***nickel silver, Monel,*** or some ***stainless steel***. In comparison to other construction metals, stainless steel is quite new, essentially only coming into use in the 1920s when it became a favorite material for Art Deco-style buildings.

Aluminum—lightweight and corrosion-resistant—was not utilized much in buildings because it was so expensive until the 1920s, when expanded production reduced its cost. Aluminum siding, which was advertised as maintenance free, became a popular siding material for single-family residences after it was introduced in the late 1930s. Some of the uses of aluminum include roofing and roofing features, such as gutters, downspouts, and flashing, as well as windows and storefront surrounds.

Porcelain enamel, or ***vitreous enamel,*** is composed of a thin coating of glass fused to cast-iron or steel sheets, panels, tiles, or shingles. Although developed in the late 19th century, it was not commonly used in buildings until the late 1920s and 1930s for Art Deco and Art Moderne storefronts. Lustron houses, constructed of prefabricated, enameled steel panels and intended for mass production, were introduced in the late 1940s in anticipation of the need for housing after the war. These houses were promoted for their low maintenance, in part because the walls, ceilings, and other interior surfaces were also enameled steel panels and easily washable.

Glass

For centuries, only blown ***cylinder*** and ***crown*** glass in small pieces was available and it was expensive. Thus, the glass in early windows in American buildings consisted of small panes which gradually increased in size over the years. With the invention of cast plate glass in 1848, large plates of glass could be manufactured which were strong and inexpensive. ***Plate glass*** was first used in the early 1850s as the primary exterior material (with a cast-iron framework) for such structures as international exhibition buildings, worlds' fair pavilions, and greenhouses and conservatories. In the early 20th century, architects began using glass curtain walls in Art Moderne-style architecture and, most notably, the International Style. ***Tempered glass*** is a hardened or toughened glass which began to be used in building construction around 1940. By the middle of the 20th century, glass as a cladding system became synonymous with curtain wall systems.



In addition to clear glass—flat or sometimes curved—there is also stained glass, tinted, patterned, textured, etched, frosted, leaded, painted, colored opaque glass and spandrel glass, prism glass, decorative Val de Verre glass (colored art glass), ceramic frit (pigmented glass enamel fused to a glass surface), and glass block. Many of these types of glass can be found in windows, transoms, doors and entrances, and storefront display windows, whereas some of them—especially opaque, pigmented structural glass with trade names such as Vitrolite, Carrara Glass, and Sani Onyx—are more likely to appear as exterior cladding on Art Deco-style or Art Moderne storefronts. ***Spandrel glass*** was first introduced on mid-20th-century buildings, particularly in storefront and curtain wall systems. Glass was also used historically in skylights and monitors; in theater, hotel, and apartment building marquees and canopies; and as a component of lightning rods and weathervanes, address plates, and signage.

Glass features on the interior of historic buildings include transoms, windows, privacy screens, office dividers, wall partitions for borrowed light in office corridors, teller windows in banks, ticket windows in train stations and movie theaters, doorknobs, light fixtures, mirrored wall inlay, and also, beginning in the latter part of the 20th century, wall mosaics. Pigmented structural glass can be found in bathrooms and some kitchens because of its sanitary qualities.

Low-e (low emissivity) ***glass***, which is primarily used in windows to minimize solar gain, was developed in the last quarter of the 20th century. ***Impact-resistant glass*** is another more-recently developed type of glass designed to withstand hurricane-force wind and which can also be installed as a blast-resistant security feature.

Paint and Other Coatings

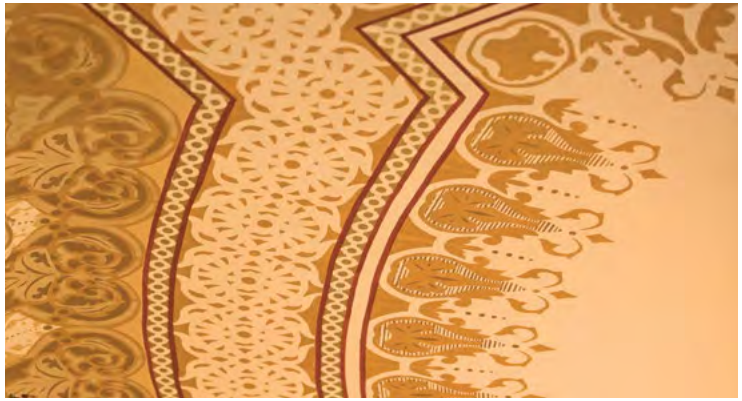
Paints and paint-like coatings have been used on historic buildings in America as protective coatings and for decorative treatments. What is commonly considered to be paint is a liquid consisting of a pigment which makes it opaque and colors it, a binder or base to hold it together, and sometimes a vehicle to carry the pigment. Many historic paints contained lead in the form of lead white, included as a "concealing" pigment that provided opacity, although zinc oxide was also used as an alternative. Lead increased durability and prevented mold and mildew. Titanium dioxide was sometimes used as a substitute for lead in the early 20th century, but lead continued to be an ingredient in most paints until it was banned as a hazardous substance in the U.S. in 1978. Traditional paints had an oil base, usually linseed, and the earliest paint colors were, for the most part, derived from natural pigments. Like today, both glossy and flat (or matte-finish) paints were used historically on the exterior and the interior of a building. After 1875, factory-made paints were readily available. Masonry and wood stains are traditional coatings which also consist of a pigment, a solvent, and little, if any, binder. They have a flat finish and are transparent rather than opaque so that the substrate is still visible.

Other historic paints, such as ***whitewash***, are water based and have a flat finish. In addition to water, whitewash is composed of hydrated (slaked) lime, salt, and various other materials and sometimes includes a natural pigment. Whitewash was used on interior plaster, in cellars, and on wood structural components, but not on wood doors, windows, or trim because its flat finish easily rubs off. Whitewash was also used on the exterior of brick or stone buildings, wood fences, and farm outbuildings as a protective coating. Often it was reapplied on an annual basis when it got dirty or if it wore off due to exposure to the weather. ***Calcimine*** (or ***kalsomine***) and ***distemper*** paints were also water based and included natural glues, gelatin, gums, and whiting to which colored pigments could be added. They were used only on the interior and usually on plaster surfaces. ***Casein*** is a milk-based paint composed of hydrated lime, pigment, often oil, and a variety of additives to increase its durability. It was used on both the exterior and the interior of buildings.

The interiors of historic buildings can exhibit a multitude of decorative painted treatments. Marbleized and grained finishes were applied to wood, stone, and plaster to give them the appearance of more exotic and costly materials. Other interior painted treatments, such as murals and stencils, are purely decorative. ***Tempera*** and ***gouache*** are traditional water-based paints used almost exclusively for decorative painting.

Experimentation that began early in the 20th century resulted in the development of acrylic water-based paint, commonly known as ***latex paint***. ***Oil-based/alkyd paint*** continues to be used in the 21st century and is still preferred for certain applications. Latex paint tends to be more popular not only because it is water-based (making clean up easy during and after painting), but it also has fewer toxic vapors and, like solvent-based oil/alkyd paints, is very durable.

Varnish, which is used primarily on interior wood features but also on exterior entrance doors, is another traditional coating. Unlike paint, varnish is transparent, composed of a resin, a drying oil, and a solvent. It has a glossy finish, which dulls over time.



Composite Materials: Plastic, Resin, and Vinyl; Fiber-Reinforced Cement Siding; Fiberboard; and Floor Coverings

Plastic is a malleable material composed of synthetic or natural organic materials made from various organic polymers, such as ***polyethylene*** and ***polyvinyl chloride*** (**PVC**), which can be poured into molds or rolled in sheets. It is generally agreed that the term ***plastic*** was introduced into popular usage in 1907 to describe the first fully synthetic plastic. Improved plastics were available in America by World War I. Production soared during World War II because plastics were needed to make up for the shortage of other materials. In mass production by the 1950s, the industry continued to expand with the development of increasingly more sophisticated plastics.

Vinyl siding came on the market in the late 1950s, and its use, primarily in residential construction, increased as the product improved over the years. Coating canvas awnings with vinyl helped to extend their lifespan, evolving, eventually, into awnings manufactured solely of vinyl. Plastic signs on the exterior of historic commercial buildings changed and radically expanded the role of signage as advertising as well as being important design features themselves. Plastic was used sometimes for decorative trim on storefronts. Vinyl-coated wallpaper was used as early as the 1920s and is still selected for restaurants, commercial spaces, and hospitals because it is durable and washable. Other plastic materials became popular in the 1950s in the form of plastic-laminate sheeting and wall tiles.

Fiber-reinforced plastic (***FRP***), is made of a polymer matrix mixed with fiber, usually ***fiberglass***, to add strength; it is noted for its ability to be molded in thin shells. FRP is sometimes used as a substitute material to recreate missing or deteriorated architectural features in historic buildings. ***Acrylic plastic*** is a transparent synthetic plastic, generally identified by one of its trade names—***Plexiglass*** or ***Lucite***—which was patented in the 1950s as an alternative to glass. ***Foamed polystyrene***, better known as ***Styrofoam***, was first used in the mid-1950s as building insulation.

Fiber-Reinforced Cement Siding is a composite material made of sand, cement, and cellulose fibers. It was developed in the latter part of the 20th century as a less-hazardous replacement for asbestos cement siding, which preceded it, and was used for siding and roofing shingles from the early 20th century to the 1970s. Fiber-reinforced cement siding is frequently installed in the form of horizontal boards or vertical panels as exterior siding. Fiber-reinforced cement is used on both residential and commercial buildings.

Fiberboard is a composite hardboard material made from pressure-molded wood fibers. It had early precedents in the late 18th century, but was first manufactured in large quantities in the 1920s, with its use expanding in the 1930s and 40s. Fiberboard (or wallboard, as it is commonly known) was marketed by various companies, such as ***Masonite***. It was used as sheathing for roofing and siding on the exterior, for insulation, and for interior walls.

The first composite floor covering was ***Linoleum***, made from oxidized linseed oil and ground cork or wood flour. Its manufacture in the U.S. began in the late 19th century, about the same time synthetic ***rubber floor tile*** was also introduced. ***Asphalt floor tiles*** were first used in the 1920s and remained popular into the 1950s. ***Plastic/vinyl*** replaced asphalt as a binder in floor tiles in the late 1920s, in part because plastic, unlike asphalt, could be made in lighter colors and a greater variety of colors. Semi-flexible vinyl flooring, manufactured in the form of tiles or rolled sheets, was developed by the 1930s. After the war, it became more affordable and frequently was chosen for both residential and commercial interiors.

Imitative Materials

Imitative building materials are generally common and readily available materials used to simulate a more expensive material. They have a long history in American building construction. ***Wood***, cut and planed and sometimes coated with a sand paint, has been used since the 18th century to replicate cut blocks of stone and quoins on the exterior of a building. ***Stucco***, applied over any kind of construction (from log to rubble masonry) and scored to resemble stone, could make even a log house look elegant. ***Cast iron*** and ***pressed metal***, whether as a complete façade, a storefront, or an individual feature such as a window hood, cornice, or decorative pilaster, were also used on the exterior of buildings to replicate stone. Not only ***architectural terra cotta***, but ***cast stone*** served as a substitute for stone. ***Metal*** and ***concrete*** roofing tiles were used as less-costly alternatives to clay roofing tiles.

In the 20th century, the use of exterior imitative materials expanded as new products were developed. ***Asphalt roll siding*** that resembled brick could be applied to a wood building, and ***asbestos composite shingles*** were produced to replace not only wood shingle siding, but also slate roofing shingles. ***Aluminum siding*** has been used as a replacement for wood siding, followed by ***vinyl siding***, ***pressed wood siding,*** and, more recently, ***composite*** or ***fiber-cement siding***. Manufactured ***faux slate roofing*** became popular because it costs less than slate and is lighter weight. Over the years, imitative materials have increased in variety as synthetic materials continue to be introduced, including a substitute, an ***exterior insulation and finish system*** (***EIFS***), for another imitative material—stucco. Imitative materials are also used to recreate missing or deteriorated architectural features in historic buildings.

On the interior, imitative materials, such as ***scored plaster***, were historically applied to walls to give the appearance of stone. ***Painted*** or ***marbleized finishes*** on plaster or wood could further simulate stone, and ***decorative graining*** could transform the surface of a common wood into a more exotic species. ***Scagliola***, which is often applied to brick columns, is a very old technique that uses a plaster-like composite material to simulate marble. ***Lincrusta***, an embossed wall covering, was developed in the late 19th century to simulate pressed metal. ***Embossed wall coverings*** continue to be produced in the 21st century. Concrete, vinyl, and other manufactured flooring materials are designed in many patterns and colors to replicate brick, stone, clay tile, and wood.

Roofs

The roof—with its form; features such as cresting, dormers, cupolas, and chimneys; and the size, color, and patterning of the roofing material—is an important design element of many historic buildings. In addition, a weathertight roof is essential to the long-term preservation of the entire structure. Historic roofing reflects availability of materials, levels of construction technology, climate, and cost.

Throughout all periods of American history, with only minor exception, ***wood*** has been used for roofing; despite the early use of many other materials, wood shingles remained the most common roofing material throughout much of the 19th century. Initially the species of wood used would have been specific to a region, but the quality and design of a building were usually the prime determinants in the way wood was used, ranging from wide, lapped boards to small, uniform, geometrically-shaped shingles.

Clay tile was used at least in a limited way in the first settlements on the East coast and it was manufactured in America by the mid 17th century. The Spanish influence in the use of clay roofing tiles is apparent in buildings in the south, southwest, and western parts of the country. ***Slate*** was also an early roofing material, but it was imported until the end of the 18th century when the first slate quarry opened. Both slate and tile roofs provided fire protection, especially important in urban areas. The use of slate expanded quickly in the second half of the 19th century with the development of the railroads, and it remained a preferred roofing material until the middle of the 20th century.

Lead and ***copper*** were the first metals used for roofing, later joined by ***zinc*** and ***iron*** in the beginning of the 19th century. Lead was used in the mid 19th century for flashing and sometimes for the roofs of bay windows, domed, or steeply-pitched sections of a larger roof, and steeples. Copper has continued in use for roofing, gutters, downspouts, and flashing.

Painted iron was initially used in large sheets, but it was replaced with smaller sheets of iron plated with ***tin*** or ***terne***—a lead-tin mix—which were a more successful roofing material. As plated iron and, later, ***steel*** became widely available, their light weight, fire resistance, and low cost made them the ideal alternative to wood shingles. ***Galvanized metal***—base steel coated with an alloy of zinc—gained widespread popularity in the 20th century. Galvanizing not only protects metal from rusting, but it also adds strength; corrugated sheet metal, when galvanized, became the preferred metal roofing material because it reduced the need for sheathing. Galvanized steel also could be stamped into sheets simulating shingles and clay tiles.

In the late 19th century, ***concrete*** roofing tiles began to be produced as a substitute for clay tiles. At about the same time, ***composition*** roofing (built-up or roll roofing) was developed. This is a layered assembly of felt sheets and coal tar or asphalt, topped with gravel that is suitable for waterproofing flat and low-sloped roofs. Shortly after the start of the 20th century, ***asbestos fiber cement*** and ***asphalt*** shingles came into use as less-expensive alternatives to slate. Later in the 20th century, sheets of ***modified bitumen*** and ***synthetic rubber*** provided more options for a flat roof. By the end of the 20th century, ***liquid*** and ***vinyl membranes*** were also installed on flat roofs, and ***synthetic recycled materials*** were used increasingly for both new and replacement roofs.

Windows

Technology and prevailing architectural styles shaped the history of windows in America. The earliest windows were essentially medieval in their form. Small panes of glass, usually diamond-shaped and held together with lead, were set in a hinged casement sash of wood or iron. By the beginning of the 18th century, the glass had increased in size and had become rectangular, with putty holding it in place. Wood muntins replaced lead cames between the panes, and two sashes were placed in a frame where the lower one could slide vertically. Such simple windows remained common in utilitarian buildings well into the 20th century. With the introduction of iron pulleys, the sash could be hung from cords connected to counterweights, which resulted in single-hung windows, or double hung when both sashes were counterbalanced.

Sash increased in depth as it evolved, providing additional strength that allowed narrower muntins. As the production of glass (blown initially as a disk and later as a cylinder) improved, larger pieces of glass became more affordable, resulting in fewer panes of glass in a window. A sash that would have had twelve panes of glass in the 18th century often had only two by the mid 19th century. After about 1850, with the advent of mass-produced millwork, standard profiles and sizes of windows were established with a wide variety of designs and glazing configurations that could be purchased from catalogues. The Chicago window, which featured a large fixed pane of glass in the center with a narrow, double-hung, operable sash window on either side of it, was introduced in the last decades of the 19th century as a feature of the Chicago School-style of architecture. The picture window, popular in ranch-style houses in the mid 20th century, evolved from this.

Steel was employed beginning at the end of the 19th century to build fire-resistant windows in tight urban environments. These hollow-core windows were frequently galvanized. Windows with solid, rolled steel sections were first produced in the first decade of the 20th century in many forms, ranging from casements (especially popular in domestic construction) to large, multi-pane units that provided whole walls of natural light in industrial and warehouse buildings. Operable vents in these large windows pivoted on simple pins. Their relatively small panes and the fact that they were puttied in from the interior made the inevitable breakage easy and inexpensive to repair. Rolled steel was also used for double-hung windows, which were common in high-rise buildings in the 1920s and beyond. Aluminum windows were developed in the 1930s and, by the 1970s, rivaled wood in popularity, particularly in commercial and institutional buildings. They were produced in a variety of styles and functionality, including casement, hopper, awning, and double-hung sash.

Metal-clad (initially copper) wood windows appeared early in the 20th century but were not common until the later part of the century, when enameled aluminum cladding replaced copper. Although used primarily as replacements in older buildings, vinyl windows were developed in the latter part of the 20th century and marketed as inexpensive and thermally efficient. Modern windows are also made of fiberglass and polymer-based composites.

Storm windows were used historically and are still used to help regulate interior temperatures. Limited commercial use of thermal-pane or insulated glass in windows began in the 1930s, but it was not readily available until about 1950. Tempered glass also came into use about this time. Since then, work has continued to improve its efficiency and to reduce the effect of ultra-violet rays with tinted and low-e (low emissivity) glass. Impact-resistant glass is not new, but its use in windows continues to expand to meet modern hurricane code requirements as well as protection and security requirements.

Entrances and Porches

Entrances and porches are often the focus of historic American buildings. With their functional and decorative features (such as doors, steps, balustrades, columns, pilasters, and entablatures), they can be extremely important in defining the historic character of a building. In many cases, porches were also energy-saving features and remain so today, shading southern and western elevations. Usually, entrances and porches were integral components of a historic building's design; for example, porches on Greek Revival houses, with pediments and Doric or Ionic columns, echoed the architectural elements and features of the building itself. Center, single-bay porches or arcaded porches are evident in Italianate-style buildings of the 1860s. Doors of Renaissance Revival-style buildings frequently featured entablatures or pediments. Porches characterized by lathe-turned porch posts, railings, and balusters were especially prominent and decorative features of Eastlake, Queen Anne, and Stick-style houses. Deep porches on bungalows and Craftsman-style houses of the early 20th century feature tapered posts, exposed posts and beams, rafter tails, and low-pitched roofs with wide overhangs.

Late 19th- and early 20th-century high-rise buildings are often distinguished by highly-ornamented entrances, some with revolving doors, which were introduced around the turn of the 20th century. Some commercial structures in the early- to mid-20th century have recessed entrances with colorful terrazzo flooring. Entrances to Art Deco-style residential and commercial buildings often feature stylized glass and stainless-steel doors with geometric designs. Entrances on modernist buildings may have simple glazing and, frequently, projecting concrete or metal canopies.

Porches can have regional variations, not only in style, but also in nomenclature. For instance, in Hawaii, ***lanai*** is used to describe a type of porch which might be known as a ***veranda*** in some parts of the South, a ***piazza*** in Charleston, or a ***gallery*** in New Orleans.

Storefronts

The storefront is often the most prominent feature of a historic commercial building, playing a crucial role in a store's advertising and merchandising strategy. The earliest storefronts in America, dating from the late 18th and early 19th centuries, had small, residential-style windows with limited display space. A few featured oriel windows or glass vitrine cases (sometimes added later) that projected out from the façade. Early storefront systems were frequently wood. In the 19th century, storefront display windows progressively increased in size as plate glass became available in larger units. This reflected the fact that cast-iron columns and lintels were thinner, allowing larger sheets of glazing that became available at about the same time. In some regions, storefronts and the entire building façade were constructed entirely of cast iron, later followed by galvanized metal, copper, bronze, and aluminum.

Historic storefront systems have many different configurations: they may have multiple entrance doors (including one to access an upstairs apartment if one exists); they may be symmetrical or asymmetrical; and entrances may be flush or recessed from the shop's windows. Transoms, sometimes with prism glass, are often a component of storefronts. In the 19th century, awnings added another feature to the storefront. Permanent metal canopies attached to the façade or supported by free-standing posts or columns, as well as retractable canvas awnings, provided shelter for customers and merchandise alike. As the 20th century progressed, new storefront designs were introduced, some with deeply recessed entrances with expanded display cases or "floating display islands." In the 1920s, 1930s, and later, structural pigmented glass such as Carrara Glass, Vitrolite, and Sani Onyx; aluminum and stainless steel; porcelain enamel; glass block; neon signs; and other new materials were introduced in Art Deco-style and Art Moderne storefronts. Modular storefront systems were introduced after World War II.

Storefronts are typically altered more than any other building feature to reflect the latest architectural styles and appear up-to-date to attract customers. Older storefronts were often remodeled with a new design and materials by installing pigmented structural glass, for instance, and other 20th-century materials. These altered storefronts may have acquired significance in their own right and, in this case, should be retained.

Curtain Walls

Curtain wall construction was originally based on a steel framework. Today, most curtain wall construction utilizes an extruded aluminum framework, which became popular in the 1930s in the U.S. and came into its own after World War II. A curtain wall is not a structural system and, although it is self supporting, does not carry the weight of the building. Rather, it is an exterior wall hung or attached to the structural system. Curtain wall construction most frequently employs glass, metal panels, thin stone veneer, and other cladding materials, although louvers and vents, like glass panels, can also be set into the metal framework. Newer curtain wall systems may incorporate rain screens and glass fiber reinforced concrete panels (GFRC). Because curtain wall construction uses relatively lightweight and less expensive materials, it reduces building costs, which, in part, explains its popularity.

There are essentially two types of curtain wall systems: ***stick*** systems and ***unitized*** or ***modular*** systems. A ***stick*** system is a framing system composed of long metal pieces (sticks) put together individually using vertical pieces (mullions) between floors and horizontal pieces between the vertical members. The framing members may sometimes be assembled in a factory, but the installation and glazing is done on site. A ***unitized*** or ***modular*** curtain wall system consists of ready-to-hang, pre-assembled modules which already include glazing or other panel infill. These modular units are usually one story in height and approximately five- to six-feet wide. Both types of curtain walls are attached to floor slabs or columns with field-drilled bolts in mated, adjustable anchor brackets.

Glass panels in curtain wall systems can be fixed or operable and can include spandrel glass, clear, or tinted glass. Stone veneer panels may be slate, granite, marble, travertine, or limestone. Metal panels can be aluminum plate, stainless steel, copper, or other non-corrosive types of metal. Other materials used in curtain wall systems include composite panels (such as honeycomb composite panels, consisting of two thin sheets of aluminum bonded to a thin plastic layer or rigid insulation in the middle); architectural terra cotta; glazed ceramic tile; and fiber-reinforced plastic (FRP).

Structural Systems

Numerous types of structural systems have been employed in the construction of buildings throughout American history. Some systems and building methods overlapped, and many remained in use for years. These systems—listed according to the period when they were first introduced—include but are not limited to: ***wood-frame*** construction (17th century), ***load-bearing masonry*** construction (18th century), ***balloon-frame*** construction (19th century), ***brick cavity-wall*** construction (19th century), ***heavy-timber post and beam*** industrial construction (19th century), ***fireproof iron*** construction (19th century), ***heavy masonry and steel*** construction (19th century), ***skeletal steel construction*** (19th century), ***light frame and veneer brick*** construction (20th century), and ***cast-in-place concrete, concrete block,*** and ***slab and post*** construction (20th century).

Exposed iron and steel structural systems are character defining in many utilitarian and industrial structures of the late 19th and early 20th centuries that have large open interior spaces, such as train sheds and armories. Exposed wood structural systems became an important interior decorative element during the Arts and Crafts period and in Craftsman-style bungalows in the early 20th century. Exposed cast-concrete structural systems and system components define the character of many industrial interiors and, later, other interior spaces in 20th-century buildings.

If features of the historic structural system are exposed (such as load-bearing brick walls, cast-iron columns, roof trusses, posts and beams, vigas, and outriggers, or masonry foundation walls), they are likely to be important in defining the building's overall historic character. A concealed structural system, although not character defining, may still be significant as an example of historic building technology.

Mechanical Systems

Mechanical, lighting, and plumbing systems improved significantly with the onset of the Industrial Revolution. The 19th-century interest in hygiene, personal comfort, and reducing the spread of disease resulted in the development of central heating, piped water, piped gas, and networks of underground cast-iron sewers in urban areas. The mass production of cast-iron radiators made central heating affordable to many. By the turn of the 20th century, it was common for heating, lighting, and plumbing to be an integral part of most buildings.

The increasing availability of electricity as the 20th century progressed had a tremendous effect on the development of mechanical systems and opened up a new age of technology. Electric lighting brightened the interiors of all types of buildings, as well as building exteriors, their sites, and settings. Electricity not only improved heating systems, but in the 1920s it also brought central air conditioning to movie theaters and auditoriums, where it was first installed. By the middle of the 20th century, forced-air systems provided both heat and cooling in many buildings. In the late 20th century, as HVAC systems increased in efficiency, they decreased in size, with smaller components, such as split ductless systems with wall-mounted air handlers, cassette ceiling-mounted diffusers, or high-velocity mini duct systems. These systems can be especially useful for retrofitting historic buildings because they are small and unobtrusive. Heat pumps, another late-20th century invention, can help to supplement existing HVAC systems.

Replacing hydraulic elevators, which were invented in the mid-19th century, with electric elevators in the early decades of the 20th century resulted in a boom in the construction of taller high-rise buildings and skyscrapers. Escalators, also invented in the mid 19th century, became more and more common as the 20th century advanced. By the latter part of the century, moving walkways helped facilitate travelers' passage from one place to another in transportation centers, such as airports.

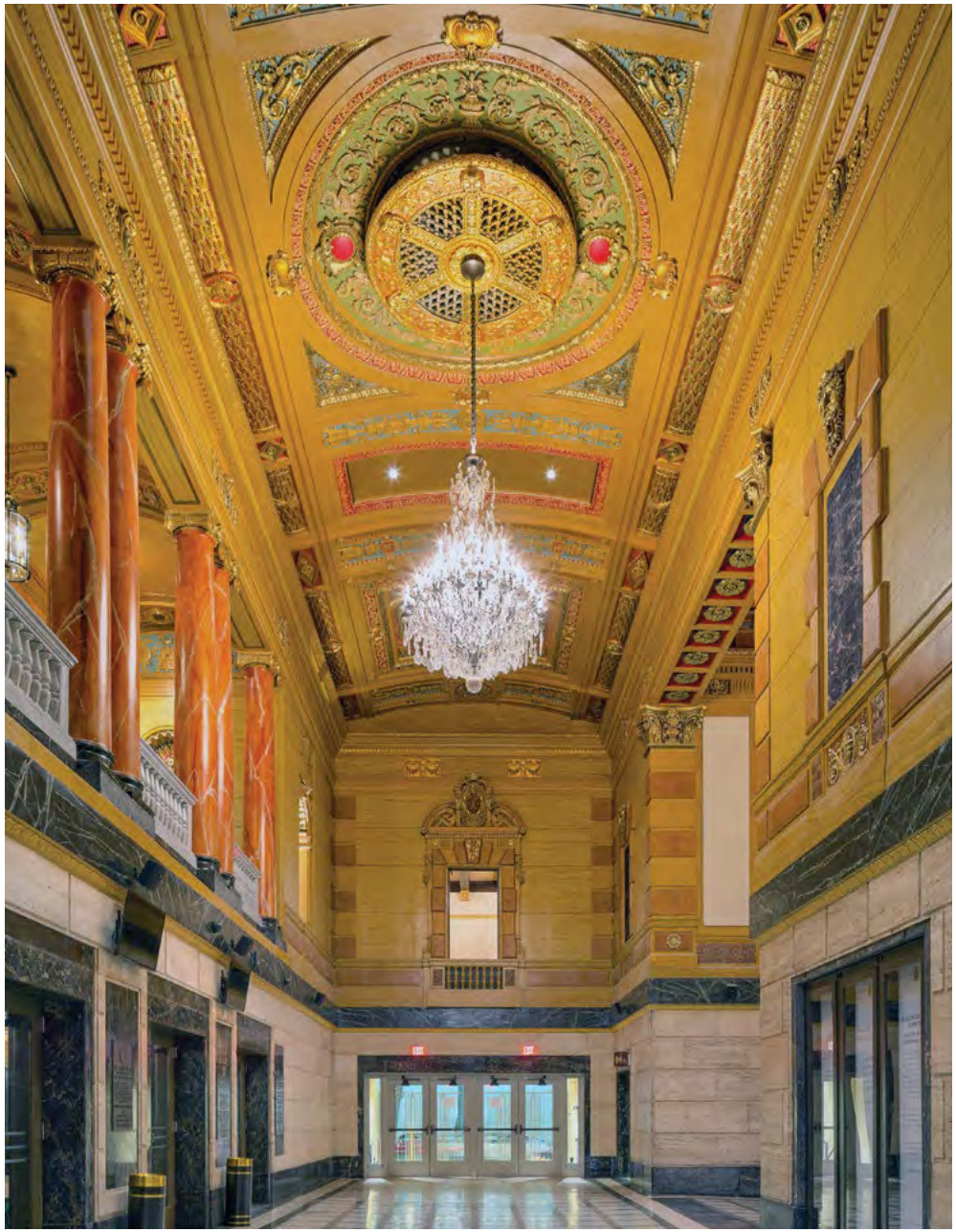
The visible decorative features that remain of historic mechanical systems (such as grilles, lighting fixtures, elevator doors, and escalators) themselves may contribute to the overall historic character of the building and should be retained when feasible. Reusing an existing, functioning system and upgrading it as needed, should always be considered when feasible. However, because a mechanical system needs to work efficiently, most historic or older systems will likely need to be replaced to meet modern requirements.

INTERIOR SPACES, FEATURES, AND FINISHES

Spaces

The earliest buildings in America were very basic and likely to have only one or, perhaps, two rooms. As communities became more established and prosperous, buildings—houses in particular—increased in size, and construction became more elaborate and sophisticated, reflecting the wealth and tastes of individual owners. Larger buildings inevitably included multiple rooms designed to accommodate a variety of purposes. Thus, the interior floor plan, the arrangement and sequence of spaces, and built-in features and applied finishes are individually and collectively important in defining the historic character of the building. With the exception of most historic utilitarian buildings, manufacturing and industrial buildings, garages, and maintenance facilities, interiors are typically composed of a series of primary and secondary spaces. This succession of spaces is applicable to many historic buildings, from courthouses to cathedrals to cottages and commercial structures. Primary spaces, including entrance halls, lobbies, double parlors, living rooms, corridors, and assembly spaces, are defined not only by their function, but also by their location, features, finishes, size, and proportion.

Secondary spaces in historic interiors are generally more functional than decorative and, depending on the building's use, may include kitchens, bathrooms, utility rooms, attics, basements, mail rooms, rear hallways, and most office spaces. Although these spaces were important to how the building functioned historically, they are generally less significant than primary spaces and, thus, are usually the most appropriate places to make changes which may be necessary in a historic building, such as those required to meet code or to install mechanical equipment. The traditional sequence of interior spaces in late 19th- through early 20th-century high-rise buildings went from public areas (such as the lobby) on the first floor



and corridors on upper floors to the private spaces behind them (i.e., offices, apartments, or hotel rooms). This hierarchy of spaces continues to define the historic character of many high-rise buildings. However, in commercial structures built on speculation with open floor plans, the upper floors, especially, are likely to have been reconfigured many times. In some cases, these interiors may have little historic character but, in others, the spaces and their appearance may have acquired significance because of a specific tenant, use (such as a boardroom or executive office), or an event.

Features and Finishes

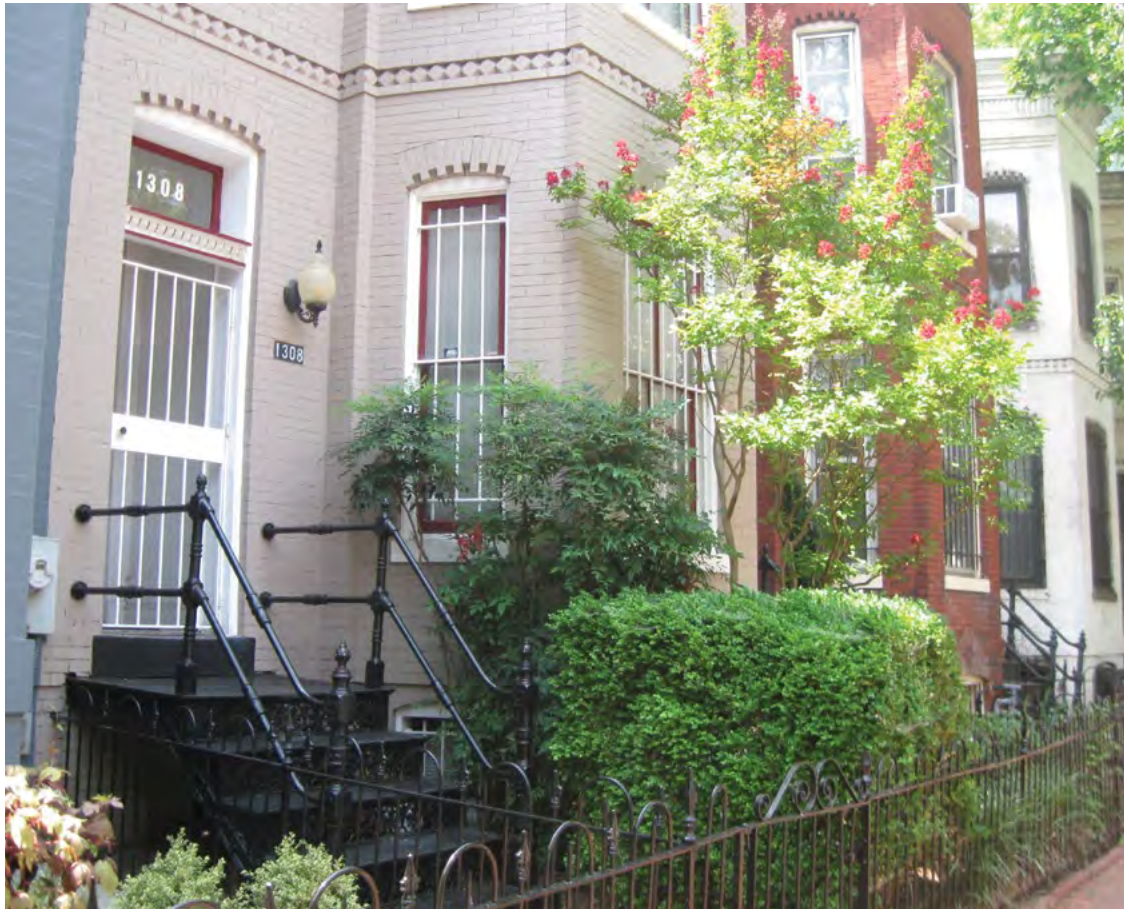
Historic character-defining features and finishes can range from very elaborate to very simple and plain, or from formal to utilitarian. The interior features that are important to a particular building generally reflect its original or historic use. Thus, the interior features and finishes of industrial and factory buildings are basic and practical, with exposed structural systems; wood, brick, or concrete walls and floors; large windows or monitors with clerestory windows to provide natural light; and minimal or no door and window surrounds. Commercial, office, hotel, and high-rise apartment buildings have public spaces that often include highly-decorated lobbies, elevator lobbies with marble flooring, wood or marble wainscoting in the upper corridors and, particularly in office buildings, offices separated from hallways by heavy doors with glass transoms and glass wall partitions for borrowed light. The repetitive pattern itself of the corridors on the upper floors in these multi-story buildings is also often significant in defining their historic character. Individual historic residential structures frequently have painted plaster walls and ceilings, door and window trim, fireplaces with mantels, wood flooring, and a staircase if the house has more than one story. Some mid-to late-20th-century houses that are less traditional in design have simpler and less-ornamented interiors.

Building Site

The building site consists of a historic building or buildings, structures, and associated landscape features and their relationship within a designed or legally-defined parcel of land. A site may be significant in its own right or because of its association with the historic building or buildings.

Setting (District/Neighborhood)

The setting is the larger area or environment in which a historic building is located. It may be an urban, suburban, or rural neighborhood or a natural landscape in which buildings have been constructed. The relationship of buildings to each other, setbacks, fence patterns, views, driveways and walkways, and street trees and other landscaping together establish the character of a district or neighborhood.



Special Requirements: Code-Required Work

Sensitive solutions to meeting code requirements are an important part of protecting the historic character of the building. Thus, work that must be done to meet accessibility and life-safety requirements must always be assessed for its potential impact on the historic building.

Accessibility

It is often necessary to make modifications to a historic building to make it compliant with accessibility code requirements. Federal rules, regulations, and standards provide guidance on how to make historic buildings accessible. Work must be carefully planned and undertaken in a manner that results in minimal or no loss of historic exterior and interior character-defining spaces, features, or finishes. The goal should be to provide the highest level of access with the least impact to the historic building.

Life Safety

When undertaking work on historic buildings, it is also necessary to consider the impact that meeting life-safety codes (public health, occupational health, life safety, electrical, seismic, structural, and building codes) will have on both exterior and interior spaces, features, and finishes. Historic building materials that are hazardous, such as lead paint and asbestos, will require abatement or encapsulation. Some newer life-safety codes are more flexible and allow greater leniency for historic buildings when making them code compliant. It is also possible that there may be an alternative approach to meeting codes that will be less damaging to the historic building. Coordinating with code officials early in project planning will help ensure that code requirements can be met in a historic building without negatively impacting its character.

Resilience to Natural Hazards

The potential future impacts of natural hazards on a historic building should be carefully evaluated and considered. If foreseeable loss, damage, or destruction to the building or its features can be reasonably anticipated, treatments should be undertaken to avoid or minimize the impacts and to ensure the continued preservation of the building and its historic character. In some other instances, the effects may be minimal or more gradual and the impacts unknown or not anticipated to affect the property until sometime in the future. In all instances, a building should be maintained in good condition and monitored regularly, and historic documentation should be prepared as a record of the building and to help guide future treatments.

Some impacts of natural hazards may be particularly sudden and destructive to a historic building (such as riverine flash flooding, coastal storm surge, an earthquake, or a tornado) and may require adaptive treatments that are more invasive. When a treatment is proposed for a building that addresses such potential impacts and will affect the building's historic character, other feasible alternatives that would require less change should always be considered first. In some instances, a certain degree of impact on a building's historic character may be necessary to ensure its retention and continued preservation. In other instances, a proposed treatment may have too great an impact to preserve the historic character of the building. A historic building may have existing characteristics or features that help to address or minimize the impacts of natural hazards. Some historic buildings may have been altered previously or be in regions where it has been traditional to adapt buildings frequently subject to damage from natural hazards, such as flooding. All these factors should be taken into consideration when planning preventive treatments. The goal should always be to minimize the impacts to the building's historic character to the greatest extent possible in adapting the building to be more resilient.

Sustainability

Before implementing any energy improvements to enhance the sustainability of a historic building, the existing energy-efficient characteristics of the building should be evaluated. Historic building construction methods and materials often maximized natural sources of heating, lighting, and ventilation to respond to local climatic conditions. The key to a successful project is to identify and understand any lost original and existing energy-efficient aspects of the historic building, as well as to identify and understand its character-defining features to ensure they are taken into account. The most sustainable building may be one that already exists. Thus, good preservation practice is very often synonymous with sustainability. There are numerous treatments—traditional as well as new technological innovations—that may be used to upgrade a historic building to help it operate more efficiently while retaining its character.

The topic of sustainability is addressed in detail in *The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings.* Although specifically developed for the treatment Rehabilitation, the Sustainability Guidelines can be used to help guide the other treatments.

New Exterior Additions and Related New Construction

A new exterior addition to a historic building should be considered in a rehabilitation project only after determining that requirements for a new or continuing use cannot be successfully met by altering non-significant interior spaces. If the existing building cannot accommodate such requirements in this way, then an exterior addition or, in some instances, separate new construction on a site may be acceptable alternatives.

A new addition must preserve the building's historic character, form, significant materials, and features. It must be compatible with the massing, size, scale, and design of the historic building while differentiated from the historic building. It should also be designed and constructed so that the essential form and integrity of the historic building would remain if the addition were to be removed in the future. There is no formula or prescription for designing a compatible new addition or related new construction on a site, nor is there generally only one possible design approach that will meet the Standards.

New additions and related new construction that meet the Standards can be any architectural style—traditional, contemporary, or a simplified version of the historic building. However, there must be a balance between differentiation and compatibility to maintain the historic character and the identity of the building being enlarged.

New additions and related new construction that are either identical to the historic building or in extreme contrast to it are not compatible. Placing an addition on the rear or on another secondary elevation helps to ensure that it will be subordinate to the historic building. New construction should be appropriately scaled and located far enough away from the historic building to maintain its character and that of the site and setting. In urban or other built-up areas, new construction that appears as infill within the existing pattern of development can also preserve the historic character of the building, its site, and setting.

STANDARDS FOR PRESERVATION & GUIDELINES FOR PRESERVING HISTORIC BUILDINGS

Preservation

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

Standards for Preservation

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.
2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic 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. Work needed to stabilize, consolidate and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection and properly documented for future research.
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. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color and texture.
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.

GUIDELINES FOR PRESERVING HISTORIC BUILDINGS

INTRODUCTION

Preservation is the appropriate treatment when the objective of the project is to retain the building as it currently exists. This means that not only the original historic materials and features will be preserved, but also later changes and additions to the original building. The expressed goal of the **Standards for Preservation and Guidelines for Preserving Historic Buildings** is retention of the building's existing form, features, and materials. This may be as simple as maintaining existing materials and features or may involve more extensive repair. Protection, maintenance, and repair are emphasized while replacement is minimized.

Identify, Retain, and Preserve Historic Materials and Features

The guidance for the treatment **Preservation** begins with recommendations to identify the form and detailing of those architectural materials and features that are important in defining the building's historic character and which must be retained to preserve that character. Therefore, guidance on ***identifying, retaining, and preserving*** character-defining features is always given first.

Stabilize Deteriorated Historic Materials and Features as a Preliminary Measure

Deteriorated portions of a historic building may need to be protected through preliminary stabilization measures until additional work can be undertaken. ***Stabilizing*** may begin with temporary structural reinforcement and progress to weatherization or correcting unsafe conditions. Although it may not be necessary in every preservation project, stabilization is nonetheless an integral part of the treatment **Preservation**; it is equally applicable to the other treatments if circumstances warrant.

Protect and Maintain Historic Materials and Features

After identifying those materials and features that are important and must be retained in the process of **Preservation** work, then ***protecting and maintaining*** them are addressed. Protection generally involves the least degree of intervention and is preparatory to other work. Protection includes the maintenance of historic materials and features as well as ensuring that the property is protected before and during preservation work.

Repair (Stabilize, Consolidate, and Conserve) Historic Materials and Features

Next, when the physical condition of character-defining materials and features warrants additional work, ***repairing*** by ***stabilizing, consolidating, and conserving*** is recommended. The intent of **Preservation** is to retain existing materials and features while introducing as little new material as possible. Consequently, guidance for repairing a historic material, such as masonry, begins with the least degree of intervention possible, such as strengthening materials through consolidation, when necessary, or repointing with mortar of an appropriate strength. Repairing masonry, as well as wood and metal features, may include patching, splicing, or other treatments using recognized preservation methods. All work should be physically and visually compatible.

Limited Replacement in Kind of Extensively Deteriorated Portions of Historic Features

The greatest level of intervention in this treatment is the ***limited replacement in kind*** of extensively deteriorated or missing components of features when there are surviving prototypes or when the original features can be substantiated by documentary and physical evidence. The replacement material must match the old, both physically and visually (e.g., wood with wood). Thus, with the exception of hidden structural reinforcement, such as steel rods, substitute materials are not appropriate in the treatment **Preservation.** If prominent features are missing, such as an interior staircase or an exterior cornice, then a Rehabilitation or Restoration treatment may be more appropriate.

Code-Required Work: Accessibility and Life Safety

These sections of the **Preservation** guidance address work that must be done to meet accessibility and life-safety requirements. This work may be an important aspect of preservation projects, and it, too, must be assessed for its potential negative impact on the building's character. For this reason, particular care must be taken not to obscure, damage, or destroy character-defining materials or features in the process of undertaking work to meet code requirements.

Resilience to Natural Hazards

Resilience to natural hazards should be addressed as part of a **Preservation** project. A historic building may have existing characteristics or features that help to address or minimize the impacts of natural hazards. These should always be used to best advantage when planning new adaptive treatments so as to have the least impact on the historic character of the building, its site, and setting.

Sustainability

Sustainability should be addressed as part of a **Preservation** project. Good preservation practice is often synonymous with sustainability. Existing energy-efficient features should be retained and repaired. New sustainability treatments should generally be limited to updating existing features and systems so as to have the least impact on the historic character of the building.

The topic of sustainability is addressed in detail in *The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings*. Although specifically developed for the treatment Rehabilitation, the Sustainability Guidelines can be used to help guide the other treatments.

Preservation as a Treatment. *When the property's distinctive materials, features, and spaces are essentially intact and thus convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations, Preservation may be considered as a treatment. Prior to undertaking work, a documentation plan for Preservation should be developed.*

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving masonry features that are important in defining the overall historic character of the building (such as walls, brackets, railings, cornices, window and door surrounds, steps, and columns) and decorative ornament and other details, such as tooling and bonding patterns, coatings, and color.	Altering masonry features which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Replacing historic masonry features instead of repairing or replacing only the deteriorated masonry. Applying paint or other coatings (such as stucco) to masonry that has been historically unpainted or uncoated. Removing paint from historically-painted masonry.
Stabilizing deteriorated or damaged masonry as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize deteriorated or damaged masonry until additional work is undertaken, thereby allowing further damage to occur to the historic building
Protecting and maintaining masonry by ensuring that historic drainage features and systems that divert rainwater from masonry surfaces (such as roof overhangs, gutters, and downspouts) are intact and functioning properly.	Failing to identify and treat the causes of masonry deterioration, such as leaking roofs and gutters or rising damp.
Cleaning masonry only when necessary to halt deterioration or remove heavy soiling.	Cleaning masonry surfaces when they are not heavily soiled to create a "like-new" appearance, thereby needlessly introducing chemicals or moisture into historic materials.
Carrying out masonry cleaning tests when it has been determined that cleaning is appropriate. Test areas should be examined to ensure that no damage has resulted and, ideally, monitored over a sufficient period of time to allow long-range effects to be predicted.	Cleaning masonry surfaces without testing or without sufficient time for the testing results to be evaluated.

[1] A test patch should always be done before using a chemical cleaner to ensure that it will not damage historic masonry, as in this instance, terra cotta.

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

RECOMMENDED	NOT RECOMMENDED
Cleaning soiled masonry surfaces with the gentlest method possible, such as using low-pressure water and detergent and natural bristle or other soft-bristle brushes.	Cleaning or removing paint from masonry surfaces using most abrasive methods (including sandblasting, other media blasting, or high-pressure water) which can damage the surface of the masonry and mortar joints. Using a cleaning or paint-removal method that involves water or liquid chemical solutions when there is any possibility of freezing temperatures. Cleaning with chemical products that will damage some types of masonry (such as using acid on limestone or marble), or failing to neutralize or rinse off chemical cleaners from masonry surfaces.
Using biodegradable or environmentally-safe cleaning or paint-removal products.	
Using paint-removal methods that employ a poultice to which paint adheres, when possible, to neatly and safely remove old lead paint.	
Using coatings that encapsulate lead paint, when possible, where the paint is not required to be removed to meet environmental regulations.	
Allowing only trained conservators to use abrasive or laser-cleaning methods, when necessary, to clean hard-to-reach, highly-carved, or detailed decorative stone features.	

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

RECOMMENDED	NOT RECOMMENDED
Removing damaged or deteriorated paint only to the next sound layer using the gentlest method possible (e.g., hand scraping) prior to repainting.	Removing paint that is firmly adhered to masonry surfaces.
Applying compatible paint coating systems to historically-painted masonry following proper surface preparation.	Failing to follow manufacturers' product and application instructions when repainting masonry features.
Repainting historically-painted masonry features with colors that are appropriate to the building and district.	Using paint colors on historically-painted masonry features that are not appropriate to the building or district.
Protecting adjacent materials when working on masonry features.	Failing to protect adjacent materials when working on masonry features.
Evaluating the overall condition of the masonry to determine whether more than protection and maintenance, such as repairs to masonry features, will be necessary.	Failing to undertake adequate measures to ensure the protection of masonry features.
Repairing masonry by patching, splicing, consolidating, or otherwise reinforcing the masonry using recognized preservation methods.	Removing masonry that could be stabilized, repaired, and conserved, or using untested consolidants, improper repair techniques, or unskilled personnel, potentially causing further damage to historic materials.
Repairing masonry walls and other masonry features by repointing the mortar joints where there is evidence of deterioration, such as disintegrating mortar, cracks in mortar joints, loose bricks, or damaged plaster on the interior.	Removing non-deteriorated mortar from sound joints and then repointing the entire building to achieve a more uniform appearance.
Removing deteriorated lime mortar carefully by hand raking the joints to avoid damaging the masonry.	

[2] **Not Recommended:** The use of inappropriate Portland cement mortar to repoint these soft 19th-century bricks has caused some of them to spall. *Photo: Courtesy Nebraska State Historic Preservation Office.*

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

RECOMMENDED	NOT RECOMMENDED
Using power tools only on horizontal joints on brick masonry in conjunction with hand chiseling to remove hard mortar that is deteriorated or that is a non-historic material which is causing damage to the masonry units. Mechanical tools should be used only by skilled masons in limited circumstances and generally not on short, vertical joints in brick masonry.	Allowing unskilled workers to use masonry saws or mechanical tools to remove deteriorated mortar from joints prior to repointing.
Duplicating historic mortar joints in strength, composition, color, and texture when repointing is necessary. In some cases, a lime-based mortar may also be considered when repointing Portland cement mortar because it is more flexible.	Repointing masonry units with mortar of high Portland cement content (unless it is the content of the historic mortar).
Duplicating historic mortar joints in width and joint profile when repointing is necessary.	Using "surface grouting" or a "scrub" coating technique, such as a "sack rub" or "mortar washing," to repoint exterior masonry units instead of traditional repointing methods. Changing the width or joint profile when repointing.
Repairing stucco by removing the damaged material and patching with new stucco that duplicates the old in strength, composition, color, and texture.	Removing sound stucco or repairing with new stucco that is different in composition from the historic stucco. Patching stucco or concrete without removing the source of deterioration. Replacing deteriorated stucco with synthetic stucco, an exterior insulation and finish system (EIFS), or other non-traditional materials.
Using mud plaster or a compatible lime-plaster adobe render, when appropriate, to repair adobe.	Applying cement stucco, unless it already exists, to adobe.
Sealing joints in concrete with appropriate flexible sealants and backer rods, when necessary.	Repointing masonry units (other than concrete) with a synthetic caulking compound instead of mortar.

[3] **Not Recommended:** Cracks in the stucco have not been repaired, thereby allowing ferns to grow in the moist substrate which will cause further damage to the masonry.

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

RECOMMENDED	NOT RECOMMENDED
Cutting damaged concrete back to remove the source of deterioration, such as corrosion on metal reinforcement bars. The new patch must be applied carefully so that it will bond satisfactorily with, and match, the historic concrete.	Patching damaged concrete without first removing the source of deterioration.
Using a non-corrosive, stainless-steel anchoring system when replacing damaged stone, concrete, or terra-cotta units that have failed.	

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

RECOMMENDED	NOT RECOMMENDED
Applying non-historic surface treatments, such as water-repellent coatings, to masonry only after repointing and only if masonry repairs have failed to arrest water penetration problems.	Applying waterproof, water-repellent, or non-original historical coatings (such as stucco) to masonry as a substitute for repointing and masonry repairs.
Applying permeable, anti-graffiti coatings to masonry when appropriate.	Applying water-repellent or anti-graffiti coatings that change the appearance of the masonry or that may trap moisture if the coating is not sufficiently permeable.
The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment ***Preservation****, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind extensively deteriorated or missing components of masonry features when there are surviving prototypes, such as terra-cotta brackets or stone balusters, or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, color, and finish.	Replacing an entire masonry feature, such as a column or stairway, when limited replacement of deteriorated and missing components is appropriate. Using replacement material that does not match the historic masonry feature.

WOOD: CLAPBOARD, WEATHERBOARD, SHINGLES, AND OTHER FUNCTIONAL AND DECORATIVE ELEMENTS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving wood features that are important in defining the overall historic character of the building (such as siding, cornices, brackets, window and door surrounds, and steps) and their paints, finishes, and colors.	Altering wood features which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Replacing historic wood features instead of repairing or replacing only the deteriorated wood. Changing the type of finish, coating, or historic color of wood features

[4] Hand scraping to remove peeling paint from wood siding in preparation for repainting is an important part of regularly-scheduled maintenance.

WOOD: CLAPBOARD, WEATHERBOARD, SHINGLES, AND OTHER FUNCTIONAL AND DECORATIVE ELEMENTS

RECOMMENDED	NOT RECOMMENDED
Stabilizing deteriorated or damaged wood as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize deteriorated or damaged wood until additional work is undertaken, thereby allowing further damage to occur to the historic building.
Protecting and maintaining wood features by ensuring that historic drainage features that divert rainwater from wood surfaces (such as roof overhangs, gutters, and downspouts) are intact and functioning properly. Finding and eliminating sources of moisture that may damage wood features, such as clogged gutters and downspouts, leaky roofs, or moisture-retaining soil that touches wood around the foundation.	Failing to identify and treat the causes of wood deterioration, such as faulty flashing, leaking gutters, cracks and holes in siding, deteriorated caulking in joints and seams, plant material growing too close to wood surfaces, or insect or fungal infestation.
Finding and eliminating sources of moisture that may damage wood features, such as clogged gutters and downspouts, leaky roofs, or moisture-retaining soil that touches wood around the foundation.	
Applying chemical preservatives or paint to wood features that are subject to weathering, such as exposed beam ends, outriggers, or rafter tails.	Using chemical preservatives (such as creosote) which, unless they were used historically, can change the appearance of wood features.

[5] Rotted wood shingles have been replaced in kind with matching wood shingles.

WOOD: CLAPBOARD, WEATHERBOARD, SHINGLES, AND OTHER FUNCTIONAL AND DECORATIVE ELEMENTS

RECOMMENDED	NOT RECOMMENDED
Implementing an integrated pest management plan to identify appropriate preventive measures to guard against insect damage, such as installing termite guards, fumigating, and treating with chemicals. Retaining coatings (such as paint) that protect the wood from moisture and ultraviolet light. Paint removal should be considered only when there is paint surface deterioration and as part of an overall maintenance program which involves repainting or applying other appropriate coatings	Stripping paint or other coatings from wood features without recoating.
Removing damaged or deteriorated paint to the next sound layer using the gentlest method possible (e.g., hand scraping and hand sanding) prior to repainting.	Using potentially-damaging paint-removal methods on wood surfaces, such as open-flame torches, orbital sanders, abrasive methods (including sandblasting, other media blasting, or high-pressure water), or caustic paint-removers. Removing paint that is firmly adhered to wood surfaces.
Using chemical strippers primarily to supplement other methods such as hand scraping, hand sanding, and thermal devices.	Failing to neutralize the wood thoroughly after using chemical paint removers so that new paint may not adhere. Removing paint from detachable wood features by soaking them in a caustic solution which can roughen the surface, split the wood, or result in staining from residual acid leaching out through the wood.
Using biodegradable or environmentally-safe cleaning or paint-removal products.	
Using paint-removal methods that employ a poultice to which paint adheres, when possible, to neatly and safely remove old lead paint.	Using a thermal device to remove paint from wood features without first checking for and removing any flammable debris behind them.
Using thermal devices (such as infrared heaters) carefully to remove paint when it is so deteriorated that total removal is necessary prior to repainting.	Using thermal devices without limiting the amount of time the wood feature is exposed to heat.

WOOD: CLAPBOARD, WEATHERBOARD, SHINGLES, AND OTHER FUNCTIONAL AND DECORATIVE ELEMENTS

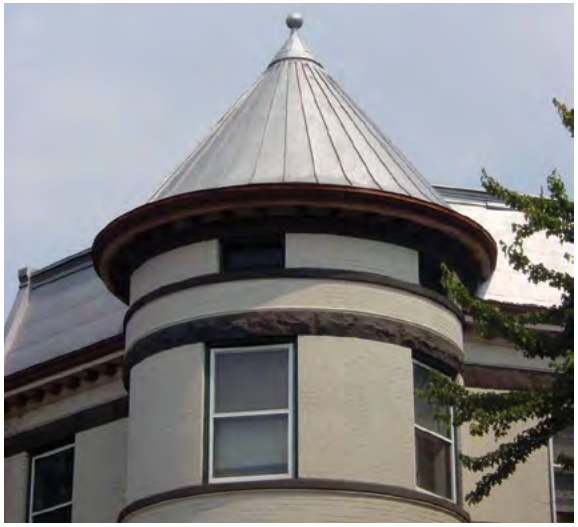
RECOMMENDED	NOT RECOMMENDED
Using coatings that encapsulate lead paint, when possible, where the paint is not required to be removed to meet environmental regulations.	
Applying compatible paint coating systems to historically-painted wood following proper surface preparation.	Failing to follow manufacturers' product and application instructions when repainting wood features.
Repainting historically-painted wood features with colors that are appropriate to the building or district.	Using paint colors on historically-painted wood features that are not appropriate to the building or district.
Protecting adjacent materials when working on wood features.	Failing to protect adjacent materials when working on wood features.
Evaluating the overall condition of the wood to determine whether more than protection and maintenance, such as repairs to wood features, will be necessary.	Failing to undertake adequate measures to ensure the protection of wood features.
Repairing wood by patching, splicing, consolidating, or otherwise reinforcing the wood using recognized preservation methods.	Removing wood that could be stabilized, repaired, and conserved, or using untested consolidants, improper repair techniques, or unskilled personnel, potentially causing further damage to historic materials.
The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment ***Preservation****, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind (i.e., with wood, but not necessarily the same species) extensively deteriorated or missing components of wood features when there are surviving prototypes, such as brackets, molding, or sections of siding, or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, color, and finish	Replacing an entire wood feature, such as a column or stairway, when limited replacement of deteriorated and missing components is appropriate. Using replacement material that does not match the historic wood feature.

METALS: WROUGHT AND CAST IRON, STEEL, PRESSED METAL, TERNEPLATE, COPPER, ALUMINUM, AND ZINC

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving metal features that are important in defining the overall historic character of the building (such as columns, capitals, pilasters, spandrel panels, or stairways) and their paint, finishes, and colors. The type of metal should be identified prior to work because each metal has its own properties and may require a different treatment.	Altering metal features which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Replacing historic metal features instead of repairing or replacing only the deteriorated metal. Changing the type of finish, coating, or historic color of metal features.
Stabilizing deteriorated or damaged metal as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize deteriorated or damaged metals until additional work is undertaken, thereby allowing further damage to occur to the historic building.
Protecting and maintaining metals from corrosion by providing proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in curved decorative features.	Failing to identify and treat the causes of corrosion, such as moisture from leaking roofs or gutters. Placing incompatible metals together without providing an appropriate separation material. Such incompatibility can result in galvanic corrosion of the less noble metal (e.g., copper will corrode cast iron, steel, tin, and aluminum).
Cleaning metals, when necessary, to remove corrosion prior to repainting or applying other appropriate protective coatings.	Failing to reapply coating systems after cleaning metals that require protection from corrosion. Removing the patina from historic metals. The patina may be a protective layer on some metals (such as bronze or copper) as well as a distinctive finish.
Identifying the particular type of metal prior to any cleaning procedure and then testing to ensure that the gentlest cleaning method possible is selected; or, alternatively, determining that cleaning is inappropriate for the particular metal.	Using cleaning methods which alter or damage the historic color, texture, and finish of the metal, or cleaning when it is inappropriate for the particular metal.

METALS: WROUGHT AND CAST IRON, STEEL, PRESSED METAL, TERNEPLATE, COPPER, ALUMINUM, AND ZINC

RECOMMENDED	NOT RECOMMENDED
Using non-corrosive chemical methods to clean soft metals (such as lead, tinplate, terneplate, copper, and zinc) whose finishes can be easily damaged by abrasive methods.	Cleaning soft metals (such as lead, tinplate, terneplate, copper, and zinc) with abrasive methods (including sandblasting, other media blasting, or high-pressure water) which will damage the surface of the metal.
Using the least abrasive cleaning method for hard metals (such as cast iron, wrought iron, and steel) to remove paint buildup and corrosion. If hand scraping and wire brushing have proven ineffective, low-pressure abrasive methods may be used as long as they do not damage the surface.	Using high-pressure abrasive techniques (including sandblasting, other media blasting, or high-pressure water) without first trying gentler cleaning methods prior to cleaning cast iron, wrought iron, or steel.
Applying appropriate paint or other coating systems to historically-coated metals after cleaning to protect them from corrosion.	Applying paint or other coatings to metals (such as copper, bronze or stainless steel) if they were not coated historically.
Repainting historically-painted metal features with colors that are appropriate to the building and district.	Using paint colors on historically-painted metal features that are not appropriate to the building or district.
Applying an appropriate protective coating (such as lacquer or wax) to a metal feature that was historically unpainted, such as a bronze door, which is subject to heavy use.	

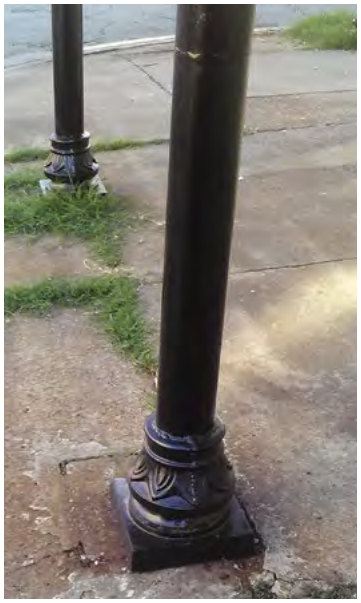


[6] A standing-seam sheet metal roof, like the one on the turret of this late 19th century row house, must be kept painted to ensure its preservation.

METALS: WROUGHT AND CAST IRON, STEEL, PRESSED METAL, TERNEPLATE, COPPER, ALUMINUM, AND ZINC

RECOMMENDED	NOT RECOMMENDED
Protecting adjacent materials when working on metal features.	Failing to protect adjacent materials when working on metal features.
Evaluating the overall condition of metals to determine whether more than protection and maintenance, such as repairs to metal features, will be necessary.	Failing to undertake adequate measures to ensure the protection of metal features.
Repairing, stabilizing, and reinforcing metal by using recognized preservation methods	Removing metals that could be stabilized, repaired, and conserved, or using improper repair techniques, or untrained personnel, potentially causing further damage to historic materials.
The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment ***Preservation,*** *and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind extensively deteriorated or missing components of metal features when there are surviving prototypes, such as porch balusters, column capitals or bases, or porch cresting, or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, color, and finish.	Replacing an entire metal feature, such as a column or balustrade, when limited replacement of deteriorated or missing components is appropriate. Using replacement material that does not match the historic metal feature.

[7] (a) After the damaged portions of the base were repaired, (b) the cast-iron columns were cleaned and repainted to protect the metal from rusting.



ROOFS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving roofs and their functional and decorative features that are important in defining the overall historic character of the building. The form of the roof (gable, hipped, gambrel, flat, or mansard) is significant, as are its decorative and functional features (such as cupolas, cresting, parapets, monitors, chimneys, weather vanes, dormers, ridge tiles, and snow guards), roofing material (such as slate, wood, clay tile, metal, roll roofing, or asphalt shingles), and size, color, and patterning.	Altering the roof and roofing materials which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Replacing historic roofing material instead of repairing or replacing only the deteriorated material. Changing the type or color of roofing materials.
Stabilizing deteriorated or damaged roofs as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize a deteriorated or damaged roof until additional work is undertaken, thereby allowing further damage to occur to the historic building
Protecting and maintaining a roof by cleaning gutters and downspouts and replacing deteriorated flashing. Roof sheathing should also be checked for indications of moisture due to leaks or condensation.	Failing to clean and maintain gutters and downspouts properly so that water and debris collect and cause damage to roof fasteners, sheathing, and the underlying structure
Providing adequate anchorage for roofing material to guard against wind damage and moisture penetration.	Allowing flashing, caps, and exposed roof fasteners to corrode, which accelerates deterioration of the roof.
Protecting a leaking roof with a temporary waterproof membrane with a synthetic underlayment, roll roofing, plywood, or a tarpaulin until it can be repaired.	Leaving a leaking roof unprotected so that accelerated deterioration of historic building materials (such as masonry, wood, plaster, paint, and structural members) occurs.
Repainting a roofing material that requires a protective coating and was painted historically (such as a terneplate metal roof or gutters) as part of regularly-scheduled maintenance.	Failing to repaint a roofing material that requires a protective coating and was painted historically as part of regularly-scheduled maintenance.
Protecting a roof covering when working on other roof features.	Failing to protect roof coverings when working on other roof features.
Evaluating the overall condition of the roof to determine whether more than protection and maintenance, such as repairs to roof features, will be necessary.	Failing to undertake adequate measures to ensure the protection of roof features.
Repairing a roof by ensuring that the existing historic roof or compatible non-historic roof covering is sound and waterproof.	Removing historic materials that could be repaired or using improper repair techniques. Failing to reuse intact slate or tile when only the roofing substrate or fasteners need replacement.

[8] Regular maintenance includes removing leaves that can clog gutters and cause water damage to the exterior and interior walls of a house.

ROOFS

RECOMMENDED	NOT RECOMMENDED
Using corrosion-resistant roof fasteners (e.g., nails and clips) to repair a roof to help extend its longevity.	
The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment ***Preservation****, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind extensively deteriorated or missing components of roof features when there are surviving prototypes, such as ridge tiles, roof cresting, or dormer trim, slates, or tiles, or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, color, and finish.	Replacing an entire roof feature, such as a chimney or dormer, when limited replacement of deteriorated or missing components is appropriate. Using replacement material that does not match the historic roof feature.

[9] Distinctively-shaped roofs are important in defining the historic character of these early 20th-century structures: (a) an asphalt shingle roof on a house; (b) and a concrete roof on Fonthill, Doylestown, PA (1908-1912), designed and built by Henry Chapman Mercer.

WINDOWS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving windows and their functional and decorative features that are important to the overall historic character of the building. The window material and how the window operates (e.g., double hung, casement, awning, or hopper) are significant, as are its components (including sash, muntins, ogee lugs, glazing, pane configuration, sills, mullions, casings, or brick molds) and related features, such as shutters.	Altering windows or window features which are important in defining the historic character of the building so that, as a result, the character is diminished. Changing the appearance of windows that contribute to the historic character of the building by replacing materials, finishes, or colors which noticeably change the sash, depth of reveal, and muntin configuration; the reflectivity and color of the glazing; or the appearance of the frame. Obscuring historic wood window trim with metal or other material.
Stabilizing deteriorated or damaged windows as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize deteriorated or damaged windows as a preliminary measure, when necessary, prior to undertaking preservation work.
Protecting and maintaining the wood or metal which comprises the window jamb, sash, and trim through appropriate surface treatments, such as cleaning, paint removal, and reapplication of the same protective coating systems.	Failing to protect and maintain materials on a cyclical basis so that deterioration of the window results.
Protecting windows against vandalism before work begins by covering them and by installing alarm systems that are keyed into local protection agencies.	Leaving windows unprotected and subject to vandalism before work begins, thereby also allowing the interior to be damaged if it can be accessed through unprotected windows.
Installing impact-resistant glazing, when necessary for security, so that it is compatible with the historic windows and does not damage them or negatively impact their character.	Installing impact-resistant glazing, when necessary for security, that is not compatible with the historic windows and damages them or negatively impacts their character.
Making windows weathertight by recaulking gaps in fixed joints and replacing or installing weatherstripping.	Replacing windows rather than maintaining the sash, frame, or glazing.
Protecting windows from chemical cleaners, paint, or abrasion during work on the exterior of the building.	Failing to protect historic windows from chemical cleaners, paint, or abrasion when work is being done on the exterior of the building.
Protecting and retaining historic glass when replacing putty or repairing other components of the window.	Failing to protect the historic glass when making repairs.

[10] Historic exterior storm windows preserve and help to insulate wood windows.

[11] Old and brittle glazing putty should be removed carefully before reputtying to keep window glazing weathertight.

WINDOWS

RECOMMENDED	NOT RECOMMENDED
Sustaining the historic operability of windows by lubricating friction points and replacing broken components of the operating system (such as hinges, latches, sash chains or cords) or replacing deteriorated gaskets or insulating units.	Failing to maintain windows and window components so that windows are inoperable, or sealing operable sash permanently. Failing to repair and reuse window hardware such as sash lifts, latches, and locks
Adding storm windows with a matching or a one-over-one pane configuration that will not obscure the characteristics of the historic windows. Storm windows improve energy efficiency and are especially beneficial when installed over wood windows because they also protect them from accelerated deterioration.	
Protecting adjacent materials when working on windows.	Failing to protect adjacent materials when working on windows.
Evaluating the overall condition of windows to determine whether more than protection and maintenance, such as repairs to windows and window features, will be necessary.	Failing to undertake adequate measures to ensure the protection of windows.
Repairing window frames and sash by patching, splicing, consolidating, or otherwise reinforcing them using recognized preservation methods.	Removing window frames or sash that could be stabilized, repaired, and conserved, or using untested consolidants, improper repair techniques, or untrained personnel, potentially causing furthur damage to historic buildings.
Using corrosion-resistant roof fasteners (e.g., nails and clips) to repair a roof to help extend its longevity.	
The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment ***Preservation****, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind extensively deteriorated or missing components of windows when there are surviving prototypes, such as frames or sash, or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, color, and finish.	Replacing an entire window when limited replacement of deteriorated or missing components is appropriate. Using replacement material that does not match the historic window.

ENTRANCES AND PORCHES

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving entrances and porches and their functional and decorative features that are important in defining the overall historic character of the building. The materials themselves (including wood, masonry, and metal) are significant, as are the features, such as doors, transoms, pilasters, columns, balustrades, stairs, roofs, and projecting canopies.	Altering entrances and porches which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Replacing historic entrance and porch features instead of repairing or replacing only the deteriorated material.
Stabilizing deteriorated or damaged entrances and porches as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize a deteriorated or damaged entrance or porch until additional work is undertaken, thereby allowing further damage to occur to the historic building.

[13] It is important that exposed swallow tail porch rafters be kept painted to protect them from water damage.

[12] Repair and limited replacement in kind to match deteriorated wood porch features is always a recommended preservation treatment.

ENTRANCES AND PORCHES

RECOMMENDED	NOT RECOMMENDED
Protecting and maintaining the masonry, wood, and metals which comprise entrances and porches through appropriate surface treatments, such as cleaning, paint removal, and reapplication of protective coating systems.	Failing to protect and maintain historic materials on a cyclical basis so that deterioration of entrances and porches results.
Protecting entrances and porches against arson and vandalism before work begins by covering them and by installing alarm systems keyed into local protection agencies.	Leaving entrances and porches unprotected and subject to vandalism before work begins, thereby also allowing the interior to be damaged if it can be accessed through unprotected entrances.
Protecting entrance and porch features when working on other features of the building.	Failing to protect historic entrances and porches when working on other features of the building.
Evaluating the overall condition of entrances and porches to determine whether more than protection and maintenance, such as repairs to entrance and porch features, will be necessary.	Failing to undertake adequate measures to ensure the protection of entrance and porch features.
Repairing entrances and porches by patching, splicing, consolidating, or otherwise reinforcing them using recognized preservation methods.	Removing entrances and porches or their features that could be stabilized, repaired, and conserved, or using untested consolidants, improper repair techniques, or untrained personnel, potentially causing further damage to historic materials.
*The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment **Preservation**, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind extensively deteriorated or missing components of entrance and porch features when there are surviving prototypes, such as railings, balustrades, cornices, columns, sidelights, stairs, and roofs, or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, color, and finish.	Replacing an entire entrance or porch feature when limited replacement of deteriorated and missing components is appropriate. Using replacement material that does not match the historic entrance or porch feature.

STOREFRONTS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving storefronts and their functional and decorative features that are important in defining the overall historic character of the building. The storefront materials (including wood, masonry, metals, ceramic tile, clear glass, and pigmented structural glass) and the configuration of the storefront are significant, as are features, such as display windows, base panels, bulkheads, signs, doors, transoms, kick plates, corner posts, piers, and entablatures.	Altering storefronts and their features which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Replacing historic storefront features instead of repairing or replacing only the deteriorated material.
Stabilizing deteriorated or damaged storefronts as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize a deteriorated or damaged storefront until additional work is undertaken, thereby allowing further damage to occur to the historic building.
Protecting and maintaining masonry, wood, glass, ceramic tile, and metals which comprise storefronts through appropriate treatments, such as cleaning, paint removal, and reapplication of protective coating systems.	Failing to protect and maintain historic materials on a cyclical basis so that deterioration of storefront features results.
Protecting storefronts against arson and vandalism before work begins by covering windows and doors and by installing alarm systems keyed into local protection agencies.	Leaving the storefront unprotected and subject to vandalism before work begins, thereby also allowing the interior to be damaged if it can be accessed through an unprotected storefront.
Protecting the storefront when working on other features of the building.	Failing to protect the storefront when working on other features of the building.

[14] The signage is an original and integral part of this historic Carrara glass storefront.

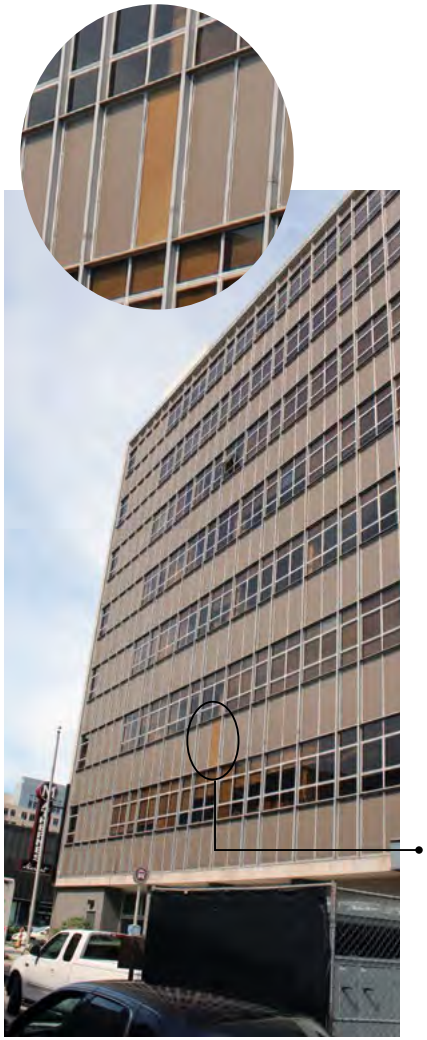
STOREFRONTS

RECOMMENDED	NOT RECOMMENDED
Evaluating the overall condition of the storefront to determine whether more than protection and maintenance, such as repairs to storefront features, will be necessary.	Failing to undertake adequate measures to ensure the protection of storefront features.
Repairing storefronts by patching, splicing, consolidating, or otherwise reinforcing them using recognized preservation methods.	Removing historic material that could be stabilized, repaired, and conserved, or using untested consolidants, improper repair techniques, or untrained personnel, potentially causing further damage to historic materials.
The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment ***Preservation****, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind extensively deteriorated or missing components of storefronts when there are surviving prototypes, such as doors, transoms, kick plates, base panels, bulkheads, piers, or signs, or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, color, and finish.	Replacing an entire feature or storefront when limited replacement of deteriorated and missing components is appropriate. Using replacement material that does not match the historic storefront feature.

[15] Regular maintenance has helped to preserve this historic storefront, which retains all of its character-defining features, including the granite bulkhead, multi-paned transom glazing, and recessed entrance.

CURTAIN WALLS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving curtain wall systems and their components that are important in defining the overall historic character of the building. The design of the curtain wall is significant, as are its component materials (metal stick framing and panel materials, such as clear or spandrel glass, stone, terra cotta, metal, and fiber-reinforced plastic), appearance (e.g., glazing color or tint, transparency, and reflectivity), and whether the glazing is fixed, operable, or louvered glass panels. How a curtain wall is engineered and fabricated, and the fact that it expands and contracts at a different rate from the building's structural system, are important to understand when undertaking the preservation of a curtain wall system.	Altering curtain wall components which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Replacing historic curtain wall features instead of repairing or replacing only the deteriorated components.
Stabilizing deteriorated or damaged curtain walls as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize deteriorated or damaged curtain walls until additional work is undertaken, thereby allowing further damage to occur to the historic building.
Protecting and maintaining curtain walls and their components through appropriate surface treatments, such as cleaning and reapplication of protective coating systems; and by making them watertight and ensuring that sealants and gaskets are in good condition.	Failing to protect and maintain curtain wall components on a cyclical basis so that deterioration of curtain walls results. Failing to identify and treat the various causes of curtain wall failure, such as open gaps between components where sealants have deteriorated or are missing.
Protecting ground-level curtain walls from vandalism before work begins by covering them, while ensuring adequate ventilation, and by installing alarm systems keyed into local protection agencies.	Leaving ground-level curtain walls unprotected and subject to vandalism before work begins, thereby also allowing the interior to be damaged if it can be accessed through unprotected entrances.
Installing impact-resistant glazing in a curtain wall system, when necessary for security or to meet code requirements, so that it is compatible with the historic curtain walls and does not damage them or negatively impact their character.	Installing impact-resistant glazing in a curtain wall system, when necessary for security, that is not compatible with the historic curtain walls and damages them or negatively impacts their character.



[16] Plywood provides temporary protection for an opening where a damaged spandrel panel was removed until a matching replacement panel can be installed.

CURTAIN WALLS

RECOMMENDED	NOT RECOMMENDED
Cleaning curtain wall systems only when necessary to halt deterioration or to remove heavy soiling.	Cleaning curtain wall systems when they are not heavily soiled, thereby needlessly introducing chemicals or moisture into historic materials.
Carrying out cleaning tests, when it has been determined that cleaning is appropriate, using only cleaning materials that will not damage components of the system, including factory-applied finishes. Test areas should be examined to ensure that no damage has resulted.	Cleaning curtain wall systems without testing first or using cleaning materials that may damage components of the system.
Evaluating the overall condition of curtain walls to determine whether more than protection and maintenance, such as repairs to curtain wall components, will be necessary.	Failing to undertake adequate measures to ensure the protection of curtain wall components.
Repairing curtain walls by ensuring that they are watertight by augmenting existing components or replacing deteriorated or missing sealants or gaskets, where necessary, to seal any gaps between system components.	Removing curtain wall components that could be stabilized, repaired, and conserved, or using improper repair techniques, or untrained personnel, potentially causing further damage to historic materials.
The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment ***Preservation****, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind extensively deteriorated or missing components of a curtain wall system when there are surviving prototypes or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, color, and finish.	Replacing an entire curtain wall feature when limited replacement of deteriorated and missing components is appropriate. Using replacement material that does not match the historic curtain wall feature.

STRUCTURAL SYSTEMS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving structural systems and visible features of systems that are important in defining the overall historic character of the building. This includes the materials that comprise the structural system (i.e., wood, metal, and masonry), the type of system, and its features, such as posts and beams, trusses, summer beams, vigas, cast-iron or masonry columns, above-grade stone foundation walls, or load-bearing masonry walls.	Altering visible features of historic structural systems which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Overloading the existing structural system, or installing equipment or mechanical systems which could damage the structure. Replacing a load-bearing masonry wall that could be augmented and retained. Leaving known structural problems untreated, such as deflected beams, cracked and bowed walls, or racked structural members.
Stabilizing deteriorated or damaged structural systems as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize a deteriorated or damaged structural system until additional work is undertaken, thereby allowing further damage to occur to the historic building. Failing to protect and maintain the structural system on a cyclical basis so that deterioration of the structural system results.
Protecting and maintaining the structural system by keeping gutters and downspouts clear and roofing in good repair; and by ensuring that wood structural members are free from insect infestation.	Using treatments or products that may retain moisture, which accelerates deterioration of structural members.

[17] Distinctive examples of traditional construction techniques should be preserved, such as this wooden peg, which is part of the structural system of this late-19th-century warehouse.

[18] A massive, exposed, concrete structural system defines the historic character of the interior of St. John's Abbey, Collegeville, MN, designed by Marcel Breuer and constructed in 1961.

STRUCTURAL SYSTEMS

RECOMMENDED	NOT RECOMMENDED
Evaluating the overall condition of the structural system to determine whether more than protection and maintenance, such as repairs to structural features, will be necessary.	Failing to undertake adequate measures to ensure the protection of structural systems.
Repairing the structural system by augmenting individual components, using recognized preservation methods. For example, weakened structural members (such as floor framing) can be paired or sistered with a new member, braced, or otherwise supplemented and reinforced.	Upgrading the building structurally in a manner that diminishes the historic character of the exterior (such as installing strapping channels or removing a decorative cornice) or that damages interior features or spaces. Replacing a structural member or other feature of the structural system when it could be augmented and retained.
The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment ***Preservation****, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind those visible portions or features of the structural system that are either extensively deteriorated or missing when there are surviving prototypes, such as cast-iron columns and sections of load-bearing walls, or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, color, and finish.	Replacing an entire curtain wall feature when limited replacement of deteriorated and missing components is appropriate. Using replacement material that does not match the historic curtain wall feature.
Considering the use of substitute material to replace structural features that are not visible. Substitute material must be structurally sufficient and physically compatible with the rest of the system.	Using substitute material that does not equal the load-bearing capabilities of the historic material or is physically incompatible with the structural system.

MECHANICAL SYSTEMS:
HEATING, AIR CONDITIONING, ELECTRICAL, AND PLUMBING

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving visible features of early mechanical systems that are important in defining the overall historic character of the building, such as radiators, vents, fans, grilles, and plumbing and lighting fixtures.	Removing or altering visible features of mechanical systems that are important in defining the overall historic character of the building so that, as a result, the character is diminished.
Stabilizing functioning mechanical systems as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize a functioning mechanical system and its visible features until additional work is undertaken.
Protecting and maintaining functioning mechanical, plumbing, and electrical systems and their features through cyclical maintenance.	Failing to protect and maintain functioning mechanical, plumbing, and electrical systems on a cyclical basis so that their deterioration results.
Improving the energy efficiency of existing mechanical systems to help reduce the need for a new system by installing storm windows, insulating attics and crawl spaces, or adding awnings, if appropriate.	
Evaluating the overall condition of functioning mechanical systems to determine whether more than protection and maintenance, such as repairs to mechanical system components, will be necessary.	Failing to undertake adequate measures to ensure the protection of structural systems.
Repairing mechanical systems by augmenting or upgrading system components (such as installing new pipes and ducts), rewiring, or adding new compressors or boilers.	Replacing a mechanical system when its components could be upgraded and retained.

MECHANICAL SYSTEMS:
HEATING, AIR CONDITIONING, ELECTRICAL, AND PLUMBING

RECOMMENDED	NOT RECOMMENDED
*The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment **Preservation**, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind those extensively deteriorated or missing visible features of mechanical systems when there are surviving prototypes, such as ceiling fans, radiators, grilles, or lighting fixtures.	Installing a visible replacement feature that does not convey the same appearance.
*The following work should be considered in a **Preservation** project when the installation of new mechanical equipment or an entire system is required to make the building functional.*	
Installing a new mechanical system, if required, so that it results in the least alteration possible to the historic building and its character-defining features.	Installing a new mechanical system so that character-defining structural or interior features are radically changed, damaged, or destroyed.
Providing adequate structural support for new mechanical equipment.	Failing to consider the weight and design of new mechanical equipment so that, as a result, historic structural members or finished surfaces are weakened or cracked.
Installing new mechanical and electrical systems and ducts, pipes, and cables in closets, service areas, and wall cavities to preserve the historic character of the interior space.	Installing ducts, pipes, and cables where they will obscure character-defining features or negatively impact the historic character of the interior. Concealing mechanical equipment in walls or ceilings in a manner that results in extensive loss or damage or otherwise obscures historic building materials and character-defining features.

INTERIOR SPACES, FEATURES, AND FINISHES

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving a floor plan or interior spaces, features, and finishes that are important in defining the overall historic character of the building. Significant spatial characteristics include the size, configuration, proportion, and relationship of rooms and corridors; the relationship of features to spaces; and the spaces themselves, such as lobbies, lodge halls, entrance halls, parlors, theaters, auditoriums, gymnasiums, and industrial and commercial interiors. Color, texture, and pattern are important characteristics of features and finishes, which can include such elements as columns, plaster walls and ceilings, flooring, trim, fireplaces and mantels, paneling, light fixtures, hardware, decorative radiators, ornamental grilles and registers, windows, doors, and transoms; plaster, paint, wallpaper and wall coverings, and special finishes, such as marbleizing and graining; and utilitarian (painted or unpainted) features, including wood, metal, or concrete exposed columns, beams, and trusses and exposed load-bearing brick, concrete, and wood walls.	Altering a floor plan, interior spaces (including individual rooms), features, or finishes which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Replacing historic interior features and finishes instead of repairing or replacing only the deteriorated portion. Installing new material that obscures or damages character-defining interior features and finishes. Removing paint, plaster, or other finishes from historically-finished interior surfaces and leaving the features exposed (e.g., removing plaster to expose brick walls or a brick chimney breast, stripping paint from wood to stain or varnish it, or removing a plaster ceiling to expose unfinished beams). Applying paint, plaster, or other coatings to surfaces that have been unfinished historically, thereby changing their character. Changing the type of finish or its color, such as painting a historically-varnished wood feature, or removing paint from a historically-painted feature.
Stabilizing deteriorated or damaged interior features and finishes as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize a deteriorated or damaged interior feature or finish until additional work can be undertaken, thereby allowing further damage to occur to the interior.
Protecting and maintaining historic materials (including plaster, masonry, wood, and metals) which comprise interior features through appropriate surface treatments, such as cleaning, paint removal, and reapplication of protective coating systems.	Failing to protect and maintain interior materials and finishes on a cyclical basis so that deterioration of interior features results.

INTERIOR SPACES, FEATURES, AND FINISHES

RECOMMENDED	NOT RECOMMENDED
Protecting interior features and finishes against arson and vandalism before project work begins by erecting temporary fencing or by covering broken windows and open doorways, while ensuring adequate ventilation, and by installing alarm systems keyed into local protection agencies.	Leaving the building unprotected and subject to vandalism before work begins, thereby allowing the interior to be damaged if it can be accessed through unprotected openings.
Protecting interior features (such as a staircase, mantel, flooring, or decorative finishes) from damage during project work by covering them with plywood, heavy canvas, or plastic sheeting.	Failing to protect interior features and finishes when working on the interior.

[19] The sweeping staircase with its metal railing, chandelier, and terrazzo floor in the lobby of the 1954 Simms Building, Albuquerque, NM, are character-defining features. *Photo: Harvey M. Kaplan.*

[20] It is important to protect decorative interior features, such as this highly-glazed tile wainscoting in a historic train station, when painting the walls above it.

INTERIOR SPACES, FEATURES, AND FINISHES

RECOMMENDED	NOT RECOMMENDED
Removing damaged or deteriorated paint and finishes only to the next sound layer using the gentlest method possible prior to repainting or refinishing using compatible paint or other coating systems.	Removing paint that is firmly adhered to interior materials and features.
Using abrasive cleaning methods only on the interior of industrial or warehouse buildings with utilitarian, unplastered masonry walls and where wood features are not finished, molded, beaded, or worked by hand. Low-pressure abrasive cleaning (e.g., sand-blasting or other media blasting) should only be considered if test patches show no surface damage and after gentler methods have proven ineffective.	Using abrasive methods anywhere but utilitarian and industrial interior spaces or when there are other cleaning methods that are less likely to damage the surface of the material.
Evaluating the overall condition of the interior materials, features, and finishes to determine whether more than protection and maintenance, such as repairs to features and finishes, will be necessary.	Failing to undertake adequate measures to ensure the protection of interior materials, features, and finishes.
Repairing interior features and finishes by patching, splicing, consolidating, or otherwise reinforcing the materials using recog-nized preservation methods.	Removing interior features or finishes that could be stabilized, repaired, and conserved, or using untested consolidants, improper repair techniques, or untrained personnel, potentially causing fur-ther damage to historic materials.
The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment ***Preservation****, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind extensively deteriorated or missing components of interior features when there are surviving prototypes (such as stairs, balustrades, wood paneling, columns, decorative wall finishes, and ornamental plaster or pressed-metal ceilings); or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, color, and finish.	Replacing an entire interior feature when limited replacement of deteriorated and missing components is appropriate. Using replacement material that does not match the historic interior feature or finish.

BUILDING SITE

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving features of the building site that are important in defining its overall historic character. Site features may include walls, fences, or steps; circulation systems, such as walks, paths, or roads; vegetation, such as trees, shrubs, grass, orchards, hedges, windbreaks, or gardens; landforms, such as hills, terracing, or berms; furnishings and fixtures, such as light posts or benches; decorative elements, such as sculpture, statuary, or monuments; water features, including fountains, streams, pools, lakes, or irrigation ditches; and subsurface archeological resources, other cultural or religious features, or burial grounds which are also important to the site.	Altering buildings and their features or site features which are important in defining the overall historic character of the property so that, as a result, the character is diminished.
Retaining the historic relationship between buildings and the landscape.	Removing or relocating buildings or landscape features, thereby destroying the historic relationship between buildings and the landscape.

[21] (a) The formal garden on the property of the 1826 Beauregard-Keyes House in New Orleans (b) is integral to the character of the site.

BUILDING SITE

RECOMMENDED	NOT RECOMMENDED
Stabilizing deteriorated or damaged building and site features as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize a deteriorated or damaged building or site feature until additional work can be undertaken, thereby allowing further damage to occur to the building site.
Protecting and maintaining buildings and site features by providing proper drainage to ensure that water does not erode foundation walls, drain toward the building, or damage or erode the landscape.	Failing to ensure that site drainage is adequate so that buildings and site features are damaged or destroyed; or, alternatively, changing the site grading so that water does not drain properly.
Minimizing disturbance of the terrain around buildings or elsewhere on the site, thereby reducing the possibility of destroying or damaging important landscape features, archeological resources, other cultural or religious features, or burial grounds.	Using heavy machinery or equipment in areas where it may disturb or damage important landscape features, archeological resources, other cultural or religious features, or burial grounds.
Protecting (e.g., preserving in place) important site features, archeological resources, other cultural or religious features, or burial grounds.	Leaving known site features or archeological material unprotected so that it is damaged during preservation work.
Planning and carrying out any necessary investigation before preservation begins, using professional archeologists and methods when preservation in place is not feasible.	Allowing unqualified personnel to perform data recovery on archeological resources, which can result in damage or loss of important archeological material.
Preserving important landscape features through regularly-scheduled maintenance of historic plant material.	Allowing important landscape features or archeological resources to be lost, damaged, or to deteriorate due to inadequate protection or lack of maintenance.
Protecting the building site and landscape features against arson and vandalism before preservation work begins by erecting temporary fencing and by installing alarm systems keyed into local protection agencies.	Leaving the property unprotected and subject to vandalism before work begins so that the building site and landscape features, archeological resources, other cultural or religious features, or burial grounds can be damaged or destroyed.
Installing protective fencing, bollards, and stanchions on a building site, when necessary for security, that are as unobtrusive as possible.	Installing protective fencing, bollards, and stanchions on a building site, when necessary for security, without taking into consideration their location and visibility so that they negatively impact the historic character of the site.
Providing continued protection and maintenance of buildings and landscape features on the site through appropriate grounds or landscape management.	Removing or destroying features from the site, such as fencing, paths or walkways, masonry balustrades, or plant material.

BUILDING SITE

RECOMMENDED	NOT RECOMMENDED
Protecting building and landscape features when working on the site.	Failing to protect building and landscape features during work on the site.
Evaluating the overall condition of the site to determine whether more than protection and maintenance, such as repairs to materials and features, will be necessary.	Failing to undertake adequate measures to ensure the protection of the site.
Repairing building and site features which have damaged, deteriorated, or missing components to reestablish the whole feature and to ensure retention of the integrity of historic materials.	Failing to repair damaged or deteriorated site features.
The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment ***Preservation****, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind extensively deteriorated or missing features of the site when there are surviving prototypes, such as part of a fountain, portions of a walkway, or a hedge, or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, and color.	Replacing an entire feature of the building or site when limited replacement of deteriorated or missing components is appropriate. Using replacement material that does not match the historic site feature.

[22 a-b] The 1907 Commander General's Quarters facing Continental Park is one of many important structures that contribute to the historic significance and character of Fort Monroe, a National Monument, in Hampton, VA.

SETTING (DISTRICT / NEIGHBORHOOD)

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving building and landscape features that are important in defining the overall historic character of the setting. Such features can include circulation systems, such as roads and streets; furnishings and fixtures, such as light posts or benches; vegetation, gardens, and yards; adjacent open space, such as fields, parks, commons, or woodlands; and important views or visual relationships.	Altering those building and landscape features of the setting which are important in defining its historic character so that, as a result, the character is diminished.
Retaining the historic relationship between buildings and landscape features in the setting. For example, preserving the relationship between a town common or urban plaza and the adjacent houses, municipal buildings, roads, and landscape and streetscape features.	Altering the relationship between the buildings and landscape features in the setting by widening existing streets, changing landscape materials, or locating new streets or parking areas where they may negatively impact the historic character of the setting. Removing or relocating historic buildings or landscape features, thereby destroying the historic relationship between buildings and the landscape in the setting.

[23] The city square is important in defining the character of the historic setting in this small town.

[24] Cast-iron porches and wrought-iron fences from the late 19th century typify this block in an urban historic district.

[25] Street names in tile set into the sidewalk are distinctive features in this historic district.

SETTING (DISTRICT / NEIGHBORHOOD)

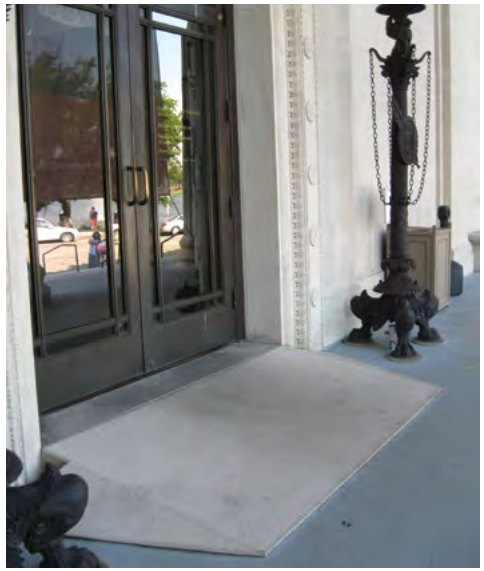
RECOMMENDED	NOT RECOMMENDED
Stabilizing deteriorated or damaged building or landscape features in the setting as a preliminary measure, when necessary, prior to undertaking preservation work.	Failing to stabilize a deteriorated or damaged building or landscape feature in the setting until additional work can be undertaken, thereby allowing further damage to occur to the setting.
Protecting and maintaining historic features in the setting through regularly-scheduled maintenance and landscape management.	Failing to protect and maintain materials in the setting on a cyclical basis so that deterioration of building and landscape features results. Stripping or removing historic features from buildings or the setting, such as a porch, fencing, walkways, or plant material.
Installing protective fencing, bollards, and stanchions in the setting, when necessary for security, that are as unobtrusive as possible.	Installing protective fencing, bollards, and stanchions in the setting, when necessary for security, without taking into consideration their location and visibility so that they negatively impact the historic character of the setting.
Protecting building and landscape features when undertaking work in the setting.	Failing to protect building and landscape features during work in the setting.
Evaluating the overall condition of materials and features to determine whether more than protection and maintenance, such as repairs to materials and features in the setting, will be necessary.	Failing to undertake adequate measures to ensure the protection of materials and features of the setting.
Repairing features in the setting by reinforcing the historic materials, using recognized preservation methods.	Removing material that could be repaired or using improper repair techniques.
The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment ***Preservation****, and should only be considered after protection, stabilization, and repair concerns have been addressed.*	
Limited Replacement in Kind	
Replacing in kind extensively deteriorated or missing components of building and landscape features in the setting when there are surviving prototypes, such as balustrades or paving materials, or when the replacement can be based on documentary or physical evidence. The new work should match the old in material, design, scale, and color.	Replacing an entire feature of the building or landscape when limited replacement of deteriorated or missing components is appropriate. Using replacement material that does not match the historic building or landscape feature.

CODE-REQUIRED WORK

RECOMMENDED	NOT RECOMMENDED
Sensitive solutions to meeting code requirements are an important part of protecting the historic character of the building and site. Thus, work that must be done to meet accessibility and life-safety requirements in the treatment ***Preservation*** *must also be assessed for its potential impact on the historic building and site.*	
ACCESSIBILITY	
Identifying the historic building's character-defining exterior features, interior spaces, features, and finishes, and features of the site and setting which may be affected by accessibility code-required work.	Undertaking accessibility code-required alterations before identifying those exterior features, interior spaces, features, and finishes, and features of the site and setting which are character defining and, therefore, must be preserved.
Complying with barrier-free access requirements in such a manner that the historic building's character-defining exterior features, interior spaces, features, and finishes, and features of the site and setting are preserved or impacted as little as possible.	Altering, damaging, or destroying character-defining exterior features, interior spaces, features, and finishes, or features of the site and setting while making modifications to a building, its site, or setting to comply with accessibility requirements.
Working with specialists in accessibility and historic preservation to determine the most sensitive solutions to comply with access requirements in a historic building, its site, and setting.	Making changes to historic buildings, their sites, and setting without first consulting with specialists in accessibility and historic preservation to determine the most appropriate solutions to comply with accessibility requirements.
Providing barrier-free access that promotes independence for the user while preserving significant historic features.	Making access modifications that do not provide independent, safe access or preserve historic features.
Finding solutions to meet accessibility requirements that minimize the impact of any necessary alteration for accessibility on the historic building, its site, or setting, such as compatible ramps, paths, and lifts.	Making modifications for accessibility without considering the impact on the historic building, its site, and setting.

CODE-REQUIRED WORK

RECOMMENDED	NOT RECOMMENDED
Using relevant sections of existing codes regarding accessibility for historic buildings that provide alternative means of compliance when code-required work would otherwise negatively impact the historic character of the property.	
Minimizing the visual impact of accessibility ramps by installing them on secondary elevations when it does not compromise accessibility or by screening them with plantings.	
Adding a gradual slope or grade to the sidewalk, if appropriate, to access the entrance rather than installing a ramp that would be more intrusive to the historic character of the building and the district.	
Installing a lift as inconspicuously as possible when it is necessary to locate it on a primary elevation of the historic building.	Installing a lift at a primary entrance without considering other options or locations.



[26] A temporary ramp–unobtrusive and easily removed–facilitates access to the entrance of this museum and does not affect its historic character.

[27] The access ramp at the left of the entrance is concealed by a hedge which minimizes its visibility and impact on the character of the historic apartment building.

CODE-REQUIRED WORK

RECOMMENDED	NOT RECOMMENDED
LIFE SAFETY	
Identifying the historic building's character-defining exterior features, interior spaces, features, and finishes, and features of the site and setting which may be affected by life-safety code-required work.	Undertaking life-safety code-required alterations before identifying those exterior features, interior spaces, features, and finishes, and features of the site and setting which are character defining and, therefore, must be preserved.
Complying with life-safety codes (including requirements for impact-resistant glazing, security, and seismic retrofit) in such a manner that the historic building's character-defining exterior features, interior spaces, features, and finishes, and features of the site and setting are preserved or impacted as little as possible.	Altering, damaging, or destroying character-defining exterior features, interior spaces, features, and finishes, or features of the site and setting while making modifications to a building, its site, or setting to comply with life-safety code requirements.
Removing building materials only after testing has been conducted to identify any hazardous materials, and using only the least damaging abatement methods.	Removing building materials without testing first to identify any hazardous materials, or using potentially damaging methods of abatement.
Providing workers with appropriate personal equipment for protection from hazards on the worksite.	Removing hazardous or toxic materials without regard for workers' health and safety or environmentally-sensitive disposal of the materials.
Working with code officials and historic preservation specialists to investigate systems, methods, or devices to make the building compliant with life-safety codes to ensure that necessary alterations will be compatible with the historic character of the building.	Making life-safety code-required changes to the building without consulting code officials and historic preservation specialists, with the result that alterations negatively impact the historic character of the building.
Using relevant sections of existing codes regarding life safety for historic buildings that provide alternative means of code compliance when code-required work would otherwise negatively impact the historic character of the building.	
Upgrading historic stairways and elevators to meet life-safety codes so that they are not damaged or otherwise negatively impacted.	Damaging or making inappropriate alterations to historic stairways and elevators or to adjacent spaces, features, or finishes in the process of doing work to meet code requirements.
Installing sensitively-designed fire-suppression systems, such as sprinklers, so that historic features and finishes are preserved.	Covering character-defining wood features with fire-retardant sheathing, which results in altering their appearance.
Applying fire-retardant coatings when appropriate, such as intumescent paint, to protect steel structural systems.	Using fire-retardant coatings if they will damage or obscure character-defining features.

[28] A simple railing added on the inner side of an elaborate wood and cast-iron stair railing meets life-safety code requirements without greatly impacting its historic character.

[29] A safety cone outside of a house where lead paint is being removed warns of the hazardous conditions on the site.

RESILIENCE TO NATURAL HAZARDS

RECOMMENDED	NOT RECOMMENDED
Resilience to natural hazards should be addressed as part of a ***Preservation*** *project. A historic building may have existing characteristics or features that help to address or minimize the impacts of natural hazards. These should always be used to best advantage when considering new adaptive treatments so as to have the least impact on the historic character of the building, its site, and setting.*	
Identifying the vulnerabilities of the historic property to the impacts of natural hazards (such as wildfires, hurricanes, or tornadoes) using the most current climate information and data available.	Failing to identify and periodically reevaluate the potential vulnerability of the building, its site, and setting to the impacts of natural hazards.
Assessing the potential impacts of known vulnerabilities on character-defining features of the building, its site, and setting, and reevaluating and reassessing potential impacts on a regular basis.	
Documenting the property and its character-defining features as a record and guide for future repair work, should it be necessary, and storing the documentation in a weatherproof location.	Failing to document the historic property and its character-defining features with the result that such information is not available in the future to guide repair or reconstruction work, should it be necessary.
Ensuring that historic resource inventories and maps are accurate, up to date, and accessible in an emergency.	
Maintaining the building, its site, and setting in good repair, and regularly monitoring character-defining features.	Failing to regularly monitor and maintain the property and building systems in good repair.
Using and maintaining existing characteristics and features of the historic building, its site, setting, and larger environment (such as shutters for storm protection or a site wall that keeps out flood waters) that may help to avoid or minimize the impacts of natural hazards.	
Undertaking work to prevent or minimize the loss, damage, or destruction of the historic property while retaining and preserving significant features and the overall historic character of the building, its site, and setting.	Allowing loss, damage, or destruction to occur to the historic building, its site, or setting by failing to evaluate potential future impacts of natural hazards or to plan and implement adaptive measures, if necessary to address possible threats.
Ensuring that, when planning work to adapt for natural hazards, all feasible alternatives are considered, and that options requiring the least alteration are considered first.	

RESILIENCE TO NATURAL HAZARDS

RECOMMENDED	NOT RECOMMENDED
Implementing local and regional traditions (such as elevating residential buildings at risk of flooding or reducing flammable vegetation around structures in fire-prone areas) for adapting buildings and sites to specific natural hazards, when appropriate. Such traditional methods may be appropriate if they are compatible with the historic character of the building, its site, and setting.	Implementing a treatment traditionally used in another region or one typically used for a different property type or architectural style which is not compatible with the historic character of the property.
Using special exemptions and variances when adaptive treatments to protect buildings from known hazards would otherwise negatively impact the historic character of the building, its site, or setting.	
Considering adaptive options, whenever possible, that would protect multiple historic resources, if the treatment can be implemented without negatively impacting the historic character of the setting or district, or archeological resources, other cultural or religious features, or burial grounds.	

[30] Historic window shutters still serve their original function as protection in hurricane-prone areas.

Sustainability

Sustainability should be addressed as part of a **Preservation** project. Good preservation practice is often synonymous with sustainability. Existing energy-efficient features should be retained and repaired. New sustainability treatments generally should be limited to updating existing features and systems to have the least impact on the historic character of the building.

The topic of sustainability is addressed in detail in ***The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings***. Although specifically developed for the treatment Rehabilitation, the Sustainability Guidelines can be used to help guide the other treatments.

[31] An interior screen door at the entrance to individual apartments is a historic feature traditionally used to help circulate air throughout the building.

STANDARDS FOR REHABILITATION & GUIDELINES FOR REHABILITATING HISTORIC BUILDINGS

Rehabilitation

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Standards for Rehabilitation

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 will 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.

GUIDELINES FOR REHABILITATING HISTORIC BUILDINGS

INTRODUCTION

In **Rehabilitation,** historic building materials and character-defining features are protected and maintained as they are in the treatment Preservation. However, greater latitude is given in the **Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings** to replace extensively deteriorated, damaged, or missing features using either the same material or compatible substitute materials. Of the four treatments, only **Rehabilitation** allows alterations and the construction of a new addition, if necessary for a continuing or new use for the historic building.

Identify, Retain, and Preserve Historic Materials and Features

The guidance for the treatment **Rehabilitation** begins with recommendations to identify the form and detailing of those architectural materials and features that are important in defining the building's historic character and which must be retained to preserve that character. Therefore, guidance on ***identifying, retaining, and preserving*** character-defining features is always given first.

Protect and Maintain Historic Materials and Features

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. Protection includes the maintenance of historic materials and features as well as ensuring that the property is protected before and during rehabilitation work. A historic building undergoing rehabilitation will often require more extensive work. Thus, an overall evaluation of its physical condition should always begin at this level.

Repair Historic Materials and Features

Next, when the physical condition of character-defining materials and features warrants additional work, ***repairing*** is recommended. **Rehabilitation** guidance for the repair of historic materials, such as masonry, again begins with the least degree of intervention possible. In rehabilitation, repairing also includes the limited replacement in kind or with a compatible substitute material of extensively deteriorated or missing components of features when there are surviving prototypes features that can be substantiated by documentary and physical evidence. Although using the same kind of material is always the preferred option, a substitute material may be an acceptable alternative if the form, design, and scale, as well as the substitute material itself, can effectively replicate the appearance of the remaining features.

Replace Deteriorated Historic Materials and Features

Following repair in the hierarchy, **Rehabilitation** guidance is provided for ***replacing*** an entire character-defining feature with new material because the level of deterioration or damage of materials precludes repair. If the missing feature is character defining or if it is critical to the survival of the building (e.g., a roof), it should be replaced to match the historic feature based on physical or his-

toric documentation of its form and detailing. As with repair, the preferred option is always replacement of the entire feature in kind (i.e., with the same material, such as wood for wood). However, when this is not feasible, a compatible substitute material that can reproduce the overall appearance of the historic material may be considered.

It should be noted that, while the National Park Service guidelines recommend the replacement of an entire character-defining feature that is extensively deteriorated, the guidelines never recommend removal and replacement with new material of a feature that could reasonably be repaired and, thus, preserved.

Design for the Replacement of Missing Historic Features

When an entire interior or exterior feature is missing, such as a porch, 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 historic appearance. If the feature is not critical to the survival of the building, allowing the building to remain without the feature is one option. But if the missing feature is important to the historic character of the building, its replacement is always recommended in the **Rehabilitation** guidelines as the first, or preferred, course of action. If adequate documentary and physical evidence exists, the feature may be accurately reproduced. A second option in a rehabilitation treatment for replacing a missing feature, particularly when the available information about the feature is inadequate to permit an accurate reconstruction, is to ***design*** a new feature that is compatible with the overall historic character of the building. The new design should always take into account the size, scale, and material of the building itself and should be clearly differentiated from the authentic historic features. For properties that have changed over time, and where those changes have acquired significance, reestablishing missing historic features generally should not be undertaken if the missing features did not coexist with the features currently on the building. Juxtaposing historic features that did not exist concurrently will result in a false sense of the building's history.

Alterations

Some exterior and interior alterations to a historic building are generally needed as part of a **Rehabilitation** project to ensure its continued use, but it is most important that such alterations do not radically change, obscure, or destroy character-defining spaces, materials, features, or finishes. Alterations may include changes to the site or setting, such as the selective removal of buildings or other features of the building site or setting that are intrusive, not character defining, or outside the building's period of significance.

Code-Required Work: Accessibility and Life Safety

Sensitive solutions to meeting code requirements in a **Rehabilitation** project are an important part of protecting the historic character of the building. Work that must be done to meet accessibility and life-safety requirements must also be assessed for its potential impact on the historic building, its site, and setting.

Resilience to Natural Hazards

Resilience to natural hazards should be addressed as part of a **Rehabilitation** project. A historic building may have existing characteristics or features that help to address or minimize the impacts of natural hazards. These should always be used to best advantage when considering new adaptive treatments so as to have the least impact on the historic character of the building, its site, and setting.

Sustainability

Sustainability should be addressed as part of a **Rehabilitation** project. Good preservation practice is often synonymous with sustainability. Existing energy-efficient features should be retained and repaired. Only sustainability treatments should be considered that will have the least impact on the historic character of the building.

The topic of sustainability is addressed in detail in *The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings.*

New Exterior Additions and Related New Construction

Rehabilitation is the only treatment that allows expanding a historic building by enlarging it with an addition. However, the **Rehabilitation** guidelines emphasize that new additions should be considered only after it is determined that meeting specific new needs cannot be achieved by altering non-character-defining interior spaces. If the use cannot be accommodated in this way, then an attached exterior addition may be considered. New additions should be designed and constructed so that the character-defining features of the historic building, its site, and setting are not negatively impacted. Generally, a new addition should be subordinate to the historic building. A new addition should be compatible, but differentiated enough so that it is not confused as historic or original to the building. The same guidance applies to new construction so that it does not negatively impact the historic character of the building or its site.

Rehabilitation as a Treatment. *When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular time is not appropriate, Rehabilitation may be considered as a treatment. Prior to undertaking work, a documentation plan for Rehabilitation should be developed.*

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining and preserving masonry features that are important in defining the overall historic character of the building (such as walls, brackets, railings, cornices, window and door surrounds, steps, and columns) and decorative ornament and other details, such as tooling and bonding patterns, coatings, and color.	Removing or substantially changing masonry features which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Replacing or rebuilding a major portion of exterior masonry walls that could be repaired, thereby destroying the historic integrity of the building. Applying paint or other coatings (such as stucco) to masonry that has been historically unpainted or uncoated to create a new appearance. Removing paint from historically-painted masonry.
Protecting and maintaining masonry by ensuring that historic drainage features and systems that divert rainwater from masonry surfaces (such as roof overhangs, gutters, and downspouts) are intact and functioning properly.	Failing to identify and treat the causes of masonry deterioration, such as leaking roofs and gutters or rising damp.
Cleaning masonry only when necessary to halt deterioration or remove heavy soiling.	Cleaning masonry surfaces when they are not heavily soiled to create a "like-new" appearance, thereby needlessly introducing chemicals or moisture into historic materials.
Carrying out masonry cleaning tests when it has been determined that cleaning is appropriate. Test areas should be examined to ensure that no damage has resulted and, ideally, monitored over a sufficient period of time to allow long-range effects to be predicted.	Cleaning masonry surfaces without testing or without sufficient time for the testing results to be evaluated.

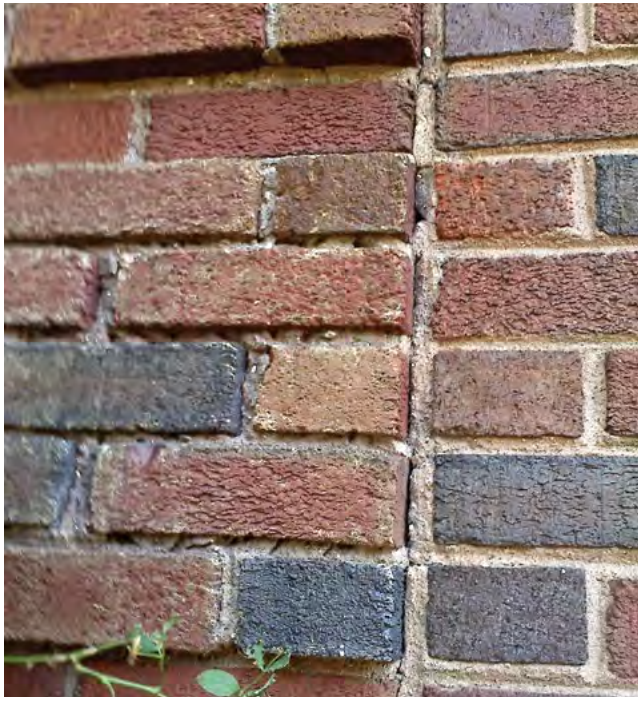
[1] An alkaline-based product is appropriate to use to clean historic marble because it will not damage the marble, which is acid sensitive.

[2] Mid-century modern building technology made possible the form of this parabola-shaped structure and its thin concrete shell construction. Built in 1961 as the lobby of the La Concha Motel in Las Vegas, it was designed by Paul Revere Williams, one of the first prominent African-American architects. It was moved to a new location and rehabilitated to serve as the Neon Museum, and is often cited as an example of Googie architecture. *Credit: Photographed with permission at The Neon Museum, Las Vegas, Nevada.*

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

RECOMMENDED	NOT RECOMMENDED
Cleaning soiled masonry surfaces with the gentlest method possible, such as using low-pressure water and detergent and natural bristle or other soft-bristle brushes.	Cleaning or removing paint from masonry surfaces using most abrasive methods (including sandblasting, other media blasting, or high-pressure water) which can damage the surface of the masonry and mortar joints. Using a cleaning or paint-removal method that involves water or liquid chemical solutions when there is any possibility of freezing temperatures. Cleaning with chemical products that will damage some types of masonry (such as using acid on limestone or marble), or failing to neutralize or rinse off chemical cleaners from masonry surfaces.

[3] **Not Recommended:**
The white film on the upper corner of this historic brick row house is the result of using a scrub or slurry coating, rather than traditional repointing by hand, which is the recommended method.



[4] **Not Recommended:**
The quoins on the left side of the photo show that high-pressure abrasive blasting used to remove paint can damage even early 20th-century, hard-baked, textured brick and erode the mortar, whereas the same brick on the right, which was not abrasively cleaned, is undamaged.

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

RECOMMENDED	NOT RECOMMENDED
Using biodegradable or environmentally-safe cleaning or paint-removal products.	
Using paint-removal methods that employ a poultice to which paint adheres, when possible, to neatly and safely remove old lead paint.	
Using coatings that encapsulate lead paint, when possible, where the paint is not required to be removed to meet environmental regulations.	
Allowing only trained conservators to use abrasive or laser-cleaning methods, when necessary, to clean hard-to-reach, highly-carved, or detailed decorative stone features.	
Removing damaged or deteriorated paint only to the next sound layer using the gentlest method possible (e.g., hand scraping) prior to repainting.	Removing paint that is firmly adhered to masonry surfaces, unless the building was unpainted historically and the paint can be removed without damaging the surface.
Applying compatible paint coating systems to historically-painted masonry following proper surface preparation.	Failing to follow manufacturers' product and application instructions when repainting masonry features.
Repainting historically-painted masonry features with colors that are appropriate to the historic character of the building and district.	Using paint colors on historically-painted masonry features that are not appropriate to the historic character of the building and district.
Protecting adjacent materials when cleaning or removing paint from masonry features.	Failing to protect adjacent materials when cleaning or removing paint from masonry features.
Evaluating the overall condition of the masonry to determine whether more than protection and maintenance, such as repairs to masonry features, will be necessary.	Failing to undertake adequate measures to ensure the protection of masonry features.
Repairing masonry by patching, splicing, consolidating, or otherwise reinforcing the masonry using recognized preservation methods. Repair may include the limited replacement in kind or with a compatible substitute material of those extensively deteriorated or missing parts of masonry features when there are surviving prototypes, such as terra-cotta brackets or stone balusters.	Removing masonry that could be stabilized, repaired, and conserved, or using untested consolidants and unskilled personnel, potentially causing further damage to historic materials. Replacing an entire masonry feature, such as a cornice or balustrade, when repair of the masonry and limited replacement of deteriorated or missing components are feasible.

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

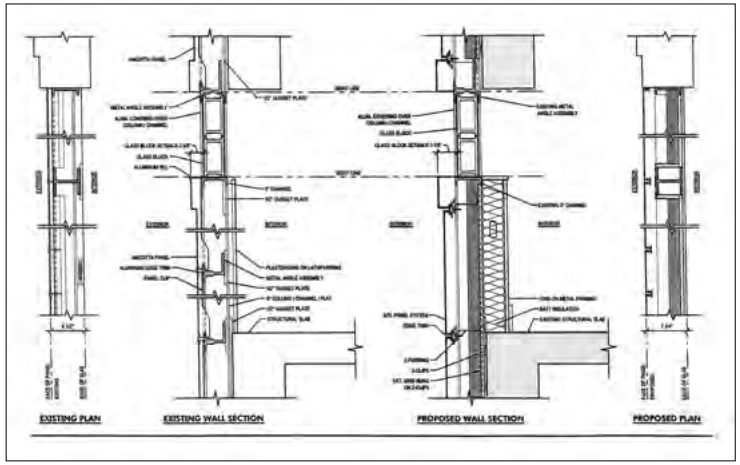
RECOMMENDED	NOT RECOMMENDED
Repairing masonry walls and other masonry features by repointing the mortar joints where there is evidence of deterioration, such as disintegrating mortar, cracks in mortar joints, loose bricks, or damaged plaster on the interior.	Removing non-deteriorated mortar from sound joints and then repointing the entire building to achieve a more uniform appearance.
Removing deteriorated lime mortar carefully by hand raking the joints to avoid damaging the masonry.	
Using power tools only on horizontal joints on brick masonry in conjunction with hand chiseling to remove hard mortar that is deteriorated or that is a non-historic material which is causing damage to the masonry units. Mechanical tools should be used only by skilled masons in limited circumstances and generally not on short, vertical joints in brick masonry.	Allowing unskilled workers to use masonry saws or mechanical tools to remove deteriorated mortar from joints prior to repointing.
Duplicating historic mortar joints in strength, composition, color, and texture when repointing is necessary. In some cases, a lime-based mortar may also be considered when repointing Portland cement mortar because it is more flexible.	Repointing masonry units with mortar of high Portland cement content (unless it is the content of the historic mortar). Using "surface grouting" or a "scrub" coating technique, such as a "sack rub" or "mortar washing," to repoint exterior masonry units instead of traditional repointing methods. Repointing masonry units (other than concrete) with a synthetic caulking compound instead of mortar.
Duplicating historic mortar joints in width and joint profile when repointing is necessary.	Changing the width or joint profile when repointing.
Repairing stucco by removing the damaged material and patching with new stucco that duplicates the old in strength, composition, color, and texture.	Removing sound stucco or repairing with new stucco that is different in composition from the historic stucco. Patching stucco or concrete without removing the source of deterioration. Replacing deteriorated stucco with synthetic stucco, an exterior finish and insulation system (EFIS), or other non-traditional materials.

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

RECOMMENDED	NOT RECOMMENDED
Using mud plaster or a compatible lime-plaster adobe render, when appropriate, to repair adobe.	Applying cement stucco, unless it already exists, to adobe.
Sealing joints in concrete with appropriate flexible sealants and backer rods, when necessary.	
Cutting damaged concrete back to remove the source of deterioration, such as corrosion on metal reinforcement bars. The new patch must be applied carefully so that it will bond satisfactorily with and match the historic concrete.	Patching damaged concrete without removing the source of deterioration.

[5] Rebars in the reinforced concrete ceiling have rusted, causing the concrete to spall. The rebars must be cleaned of rust before the concrete can be patched.

[6] Some areas of the concrete brise soleil screen on this building constructed in 1967 are badly deteriorated. If the screen cannot be repaired, it may be replaced in kind or with a composite substitute material with the same appearance as the concrete.



[7] (a) J.W. Knapp's Department Store, built 1937-38, in Lansing, MI, was constructed with a proprietary material named "Maul Macotta" made of enameled steel and cast-in-place concrete panels. Prior to its rehabilitation, a building inspection revealed that, due to a flaw in the original design and construction, the material was deteriorated beyond repair. The architects for the rehabilitation project devised a replacement system (b) consisting of enameled aluminum panels that matched the original colors (c). Photos and drawing (a-b): Quinn Evans Architects; *Photo (c): James Haefner Photography.*

MASONRY: STONE, BRICK, TERRA COTTA, CONCRETE, ADOBE, STUCCO, AND MORTAR

RECOMMENDED	NOT RECOMMENDED
Using a non-corrosive, stainless-steel anchoring system when replacing damaged stone, concrete, or terra-cotta units that have failed.	
Applying non-historic surface treatments, such as water-repellent coatings, to masonry only after repointing and only if masonry repairs have failed to arrest water penetration problems.	Applying waterproof, water-repellent, or non-original historic coatings (such as stucco) to masonry as a substitute for repointing and masonry repairs.
Applying permeable, anti-graffiti coatings to masonry when appropriate.	Applying water-repellent or anti-graffiti coatings that change the historic appearance of the masonry or that may trap moisture if the coating is not sufficiently permeable.
Replacing in kind an entire masonry feature that is too deteriorated to repair (if the overall form and detailing are still evident) using the physical evidence as a model to reproduce the feature or when the replacement can be based on historic documentation. Examples can include large sections of a wall, a cornice, pier, or parapet. If using the same kind of material is not feasible, then a compatible substitute material may be considered.	Removing a masonry feature that is unrepairable and not replacing it, or replacing it with a new feature that does not match. Using substitute material for the replacement that does not convey the same appearance of the surviving components of the masonry feature.
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Designing the Replacement for Missing Historic Features	
Designing and installing a replacement masonry feature, such as a step or door pediment, when the historic feature is completely missing. It may be an accurate restoration based on documentary and physical evidence, but only when the historic feature to be replaced coexisted with the features currently on the building. Or, it may be a new design that is compatible with the size, scale, material, and color of the historic building.	Creating an inaccurate appearance because the replacement for the missing masonry feature is based upon insufficient physical or historic documentation, is not a compatible design, or because the feature to be replaced did not coexist with the features currently on the building. Introducing a new masonry feature that is incompatible in size, scale, material, or color.

WOOD: CLAPBOARD, WEATHERBOARD, SHINGLES, AND OTHER FUNCTIONAL AND DECORATIVE ELEMENTS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining and preserving wood features that are important in defining the overall historic character of the building (such as siding, cornices, brackets, window and door surrounds, and steps) and their paints, finishes, and colors.	Removing or substantially changing wood features which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Removing a major portion of the historic wood from a façade instead of repairing or replacing only the deteriorated wood, then reconstructing the façade with new material to achieve a uniform or "improved" appearance. Changing the type of finish, coating, or historic color of wood features, thereby diminishing the historic character of the exterior. Failing to renew failing paint or other coatings that are historic finishes. Stripping historically-painted surfaces to bare wood and applying a clear finish rather than repainting. Stripping paint or other coatings to reveal bare wood, thereby exposing historically-coated surfaces to the effects of accelerated weathering. Removing wood siding (clapboards) or other covering (such as stucco) from log structures that were covered historically, which changes their historic character and exposes the logs to accelerated deterioration.
Protecting and maintaining wood features by ensuring that historic drainage features that divert rainwater from wood surfaces (such as roof overhangs, gutters, and downspouts) are intact and functioning properly.	Failing to identify and treat the causes of wood deterioration, such as faulty flashing, leaking gutters, cracks and holes in siding, deteriorated caulking in joints and seams, plant material growing too close to wood surfaces, or insect or fungal infestation.

WOOD: CLAPBOARD, WEATHERBOARD, SHINGLES, AND OTHER FUNCTIONAL AND DECORATIVE ELEMENTS

RECOMMENDED	NOT RECOMMENDED
Applying chemical preservatives or paint to wood features that are subject to weathering, such as exposed beam ends, outriggers, or rafter tails.	Using chemical preservatives (such as creosote) which, unless they were used historically, can change the appearance of wood features.
Implementing an integrated pest management plan to identify appropriate preventive measures to guard against insect damage, such as installing termite guards, fumigating, and treating with chemicals.	
Retaining coatings (such as paint) that protect the wood from moisture and ultraviolet light. Paint removal should be considered only when there is paint surface deterioration and as part of an overall maintenance program which involves repainting or applying other appropriate coatings.	Stripping paint or other coatings from wood features without recoating.

[8] Rotted clapboards have been replaced selectively with new wood siding to match the originals.

WOOD: CLAPBOARD, WEATHERBOARD, SHINGLES, AND OTHER FUNCTIONAL AND DECORATIVE ELEMENTS

RECOMMENDED	NOT RECOMMENDED
Removing damaged or deteriorated paint to the next sound layer using the gentlest method possible (e.g., hand scraping and hand sanding) prior to repainting.	Using potentially-damaging paint-removal methods on wood surfaces, such as open-flame torches, orbital sanders, abrasive methods (including sandblasting, other media blasting, or high-pressure water), or caustic paint-removers. Removing paint that is firmly adhered to wood surfaces.
Using chemical strippers primarily to supplement other methods such as hand scraping, hand sanding, and thermal devices.	Failing to neutralize the wood thoroughly after using chemical paint removers so that new paint may not adhere. Removing paint from detachable wood features by soaking them in a caustic solution, which may roughen the surface, split the wood, or result in staining from residual acids leaching out of the wood.
Using biodegradable or environmentally-safe cleaning or paint-removal products.	
Using paint-removal methods that employ a poultice to which paint adheres, when possible, to neatly and safely remove old lead paint.	
Using thermal devices (such as infrared heaters) carefully to remove paint when it is so deteriorated that total removal is necessary prior to repainting.	Using a thermal device to remove paint from wood features without first checking for and removing any flammable debris behind them. Using thermal devices without limiting the amount of time the wood feature is exposed to heat.
Using coatings that encapsulate lead paint, when possible, where the paint is not required to be removed to meet environmental regulations.	
Applying compatible paint coating systems to historically-painted wood following proper surface preparation.	Failing to follow manufacturers' product and application instructions when repainting wood features.
Repainting historically-painted wood features with colors that are appropriate to the building and district.	Using paint colors on historically-painted wood features that are not appropriate to the building or district.

WOOD: CLAPBOARD, WEATHERBOARD, SHINGLES, AND OTHER FUNCTIONAL AND DECORATIVE ELEMENTS

RECOMMENDED	NOT RECOMMENDED
Protecting adjacent materials when working on other wood features.	Failing to protect adjacent materials when working on wood features.
Evaluating the overall condition of the wood to determine whether more than protection and maintenance, such as repairs to wood features, will be necessary.	Failing to undertake adequate measures to ensure the protection of wood features.

[9] Smooth-surfaced cementitious siding (left) may be used to replace deteriorated wood siding only on secondary elevations that have minimal visibility.

[10] **Not Recommended:** Cementitious siding with a raised wood-grain texture is not an appropriate material to replace historic wood siding, which has a smooth surface when painted.

WOOD: CLAPBOARD, WEATHERBOARD, SHINGLES, AND OTHER FUNCTIONAL AND DECORATIVE ELEMENTS

RECOMMENDED	NOT RECOMMENDED
Repairing wood by patching, splicing, consolidating, or otherwise reinforcing the wood using recognized conservation methods. Repair may include the limited replacement in kind or with a compatible substitute material of those extensively deteriorated or missing components of wood features when there are surviving prototypes, such as brackets, molding, or sections of siding.	Removing wood that could be stabilized, repaired, and conserved, or using untested consolidants and unskilled personnel, potentially causing further damage to historic materials. Replacing an entire wood feature, such as a cornice or balustrade, when repair of the wood and limited replacement of deteriorated or missing components is feasible.
Replacing in kind an entire wood feature that is too deteriorated to repair (if the overall form and detailing are still evident) using physical evidence as a model to reproduce the feature or when the replacement can be based on historic documentation. Examples of such wood features include a cornice, entablature, or a balustrade. If using wood is not feasible, then a compatible substitute material may be considered.	Removing a wood feature that is unrepairable and not replacing it, or replacing it with a new feature that does not match. Using substitute material for the replacement that does not convey the same appearance of the surviving components of the wood feature.
Replacing a deteriorated wood feature or wood siding on a *primary or other highly-visible* elevation with a new matching wood feature.	Replacing a deteriorated wood feature or wood siding on a *primary or other highly-visible elevation* with a composite substitute material.
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Designing the Replacement for Missing Historic Features	
Designing and installing a replacement masonry feature, such as a step or door pediment, when the historic feature is completely missing. It may be an accurate restoration based on documentary and physical evidence, but only when the historic feature to be replaced coexisted with the features currently on the building. Or, it may be a new design that is compatible with the size, scale, material, and color of the historic building.	Creating an inaccurate appearance because the replacement for the missing masonry feature is based upon insufficient physical or historic documentation, is not a compatible design, or because the feature to be replaced did not coexist with the features currently on the building. Introducing a new wood feature that is incompatible in size, scale, material, or color.

METALS: WROUGHT AND CAST IRON, STEEL, PRESSED METAL, TERNEPLATE, COPPER, ALUMINUM, AND ZINC

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving metal features that are important in defining the overall historic character of the building (such as columns, capitals, pilasters, spandrel panels, or stairways) and their paints, finishes, and colors. The type of metal should be identified prior to work because each metal has its own properties and may require a different treatment.	Removing or substantially changing metal features which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Removing a major portion of the historic metal from a façade instead of repairing or replacing only the deteriorated metal, then reconstructing the façade with new material to achieve a uniform or "improved" appearance.
Protecting and maintaining metals from corrosion by providing proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in curved decorative features.	Failing to identify and treat the causes of corrosion, such as moisture from leaking roofs or gutters. Placing incompatible metals together without providing an appropriate separation material. Such incompatibility can result in galvanic corrosion of the less noble metal (e.g., copper will corrode cast iron, steel, tin, and aluminum).
Cleaning metals when necessary to remove corrosion prior to repainting or applying appropriate protective coatings.	Leaving metals that must be protected from corrosion uncoated after cleaning.

[11] The stainless steel doors at the entrance to this Art Deco apartment building are important in defining its historic character and should be retained in place.

METALS: WROUGHT AND CAST IRON, STEEL, PRESSED METAL, TERNEPLATE, COPPER, ALUMINUM, AND ZINC

RECOMMENDED	NOT RECOMMENDED
Identifying the particular type of metal prior to any cleaning procedure and then testing to ensure that the gentlest cleaning method possible is selected; or, alternatively, determining that cleaning is inappropriate for the particular metal.	Using cleaning methods which alter or damage the color, texture, or finish of the metal, or cleaning when it is inappropriate for the particular metal. Removing the patina from historic metals. The patina may be a protective layer on some metals (such as bronze or copper) as well as a distinctive finish.
Using non-corrosive chemical methods to clean soft metals (such as lead, tinplate, terneplate, copper, and zinc) whose finishes can be easily damaged by abrasive methods.	Cleaning soft metals (such as lead, tinplate, terneplate, copper, and zinc) with abrasive methods (including sandblasting, other abrasive media, or high-pressure water) which will damage the surface of the metal.
Using the least abrasive cleaning method for hard metals (such as cast iron, wrought iron, and steel) to remove paint buildup and corrosion. If hand scraping and wire brushing have proven ineffective, low-pressure abrasive methods may be used as long as they do not abrade or damage the surface.	Using high-pressure abrasive techniques (including sandblasting, other media blasting, or high-pressure water) without first trying gentler cleaning methods prior to cleaning cast iron, wrought iron, or steel.
Applying appropriate paint or other coatings to historically-coated metals after cleaning to protect them from corrosion.	Applying paint or other coatings to metals (such as copper, bronze or stainless steel) if they were not coated historically, unless a coating is necessary for maintenance.
Repainting historically-painted metal features with colors that are appropriate to the building and district.	Using paint colors on historically-painted metal features that are not appropriate to the building or district.
Applying an appropriate protective coating (such as lacquer or wax) to a metal feature that was historically unpainted, such as a bronze door, which is subject to heavy use.	

METALS: WROUGHT AND CAST IRON, STEEL, PRESSED METAL, TERNEPLATE, COPPER, ALUMINUM, AND ZINC

RECOMMENDED	NOT RECOMMENDED
Protecting adjacent materials when cleaning or removing paint from metal features.	Failing to protect adjacent materials when working on metal features.
Evaluating the overall condition of metals to determine whether more than protection and maintenance, such as repairs to metal features, will be necessary.	Failing to undertake adequate measures to ensure the protection of metal features.

[12] This historic steel window has been cleaned, repaired, and primed in preparation for painting and reglazing.

[13] The gold-colored, anodized aluminum geodesic dome of the former Citizen's State Bank in Oklahoma City, OK, built in 1958 and designed by Robert Roloff, makes this a distinctive mid-20th century building.

[14] Interior cast-iron columns have been cleaned and repainted as part of the rehabilitation of this historic market building for continuing use.

[15] New enameled-metal panels were replicated to replace the original panels, which were too deteriorated to repair, when the storefront of this early 1950s building was recreated.

METALS: WROUGHT AND CAST IRON, STEEL, PRESSED METAL, TERNEPLATE, COPPER, ALUMINUM, AND ZINC

RECOMMENDED	NOT RECOMMENDED
Repairing metal by reinforcing the metal using recognized preservation methods. Repair may include the limited replacement in kind or with a compatible substitute material of those extensively deteriorated or missing components of features when there are surviving prototypes, such as column capitals or bases, storefronts, railings and steps, or window hoods.	Removing metals that could be stabilized, repaired, and conserved, or using improper repair techniques, or unskilled personnel, potentially causing further damage to historic materials.
Replacing in kind an entire metal feature that is too deteriorated to repair (if the overall form and detailing are still evident) using the physical evidence as a model to reproduce the feature or when the replacement can be based on historic documentation. Examples of such a feature could include cast-iron porch steps or steel-sash windows. If using the same kind of material is not feasible, then a compatible substitute material may be considered.	Replacing an entire metal feature, such as a column or balustrade, when repair of the metal and limited replacement of deteriorated or missing components are feasible. Removing a metal feature that is unrepairable and not replacing it, or replacing it with a new metal feature that does not match. Using a substitute material for the replacement that does not convey the same appearance of the surviving components of the metal feature or that is physically or chemically incompatible.
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Designing the Replacement for Missing Historic Features	
Designing and installing a replacement metal feature, such as a metal cornice or cast-iron column, when the historic feature is completely missing. It may be an accurate restoration based on documentary and physical evidence, but only when the historic feature to be replaced coexisted with the features currently on the building. Or, it may be a new design that is compatible with the size, scale, material, and color of the historic building.	Creating an inaccurate appearance because the replacement for the missing metal feature is based upon insufficient physical or historic documentation, is not a compatible design, or because the feature to be replaced did not coexist with the features currently on the building. Introducing a new metal feature that is incompatible in size, scale, material, or color.

ROOFS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving roofs and their functional and decorative features that are important in defining the overall historic character of the building. The form of the roof (gable, hipped, gambrel, flat, or mansard) is significant, as are its decorative and functional features (such as cupolas, cresting, parapets, monitors, chimneys, weather vanes, dormers, ridge tiles, and snow guards), roofing material (such as slate, wood, clay tile, metal, roll roofing, or asphalt shingles), and size, color, and patterning.	Removing or substantially changing roofs which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Removing a major portion of the historic roof or roofing material that is repairable, then rebuilding it with new material to achieve a more uniform or "improved" appearance. Changing the configuration or shape of a roof by adding highly visible new features (such as dormer windows, vents, skylights, or a penthouse). Stripping the roof of sound historic material, such as slate, clay tile, wood, or metal.
Protecting and maintaining a roof by cleaning gutters and downspouts and replacing deteriorated flashing. Roof sheathing should also be checked for indications of moisture due to leaks or condensation.	Failing to clean and maintain gutters and downspouts properly so that water and debris collect and cause damage to roof features, sheathing, and the underlying roof structure.
Providing adequate anchorage for roofing material to guard against wind damage and moisture penetration.	Allowing flashing, caps, and exposed fasteners to corrode, which accelerates deterioration of the roof.
Protecting a leaking roof with a temporary waterproof membrane with a synthetic underlayment, roll roofing, plywood, or a tarpaulin until it can be repaired.	Leaving a leaking roof unprotected so that accelerated deterioration of historic building materials (such as masonry, wood, plaster, paint, and structural members) occurs.
Repainting a roofing material that requires a protective coating and was painted historically (such as a terneplate metal roof or gutters) as part of regularly-scheduled maintenance.	Failing to repaint a roofing material that requires a protective coating and was painted historically as part of regularly-scheduled maintenance.
Applying compatible paint coating systems to historically-painted roofing materials following proper surface preparation.	Applying paint or other coatings to roofing material if they were not coated historically.
Protecting a roof covering when working on other roof features.	Failing to protect roof coverings when working on other roof features.
Evaluating the overall condition of the roof and roof features to determine whether more than protection and maintenance, such as repairs to roof features, will be necessary.	Failing to undertake adequate measures to ensure the protection of roof features.

ROOFS

RECOMMENDED	NOT RECOMMENDED
Repairing a roof by ensuring that the existing historic or compatible non-historic roof covering is sound and waterproof. Repair may include the limited replacement in kind or with a compatible substitute material of missing materials (such as wood shingles, slates, or tiles) on a main roof, as well as those extensively deteriorated or missing components of features when there are surviving prototypes, such as ridge tiles, dormer roofing, or roof monitors. Using corrosion-resistant roof fasteners (e.g., nails and clips) to repair a roof to help extend its longevity.	Replacing an entire roof feature when repair of the historic roofing materials and limited replacement of deteriorated or missing components are feasible.

[16] The deteriorated asphalt shingles of this porch roof are being replaced in kind with matching shingles.

ROOFS

RECOMMENDED	NOT RECOMMENDED
Replacing in kind an entire roof covering or feature that is too deteriorated to repair (if the overall form and detailing are still evident) using the physical evidence as a model to reproduce the feature or when the replacement can be based on historic documentation. Examples of such a feature could include a large section of roofing, a dormer, or a chimney. If using the same kind of material is not feasible, then a compatible substitute material may be considered.	Removing a feature of the roof that is unrepairable and not replacing it, or replacing it with a new roof feature that does not match. Using a substitute material for the replacement that does not convey the same appearance of the roof covering or the surviving components of the roof feature or that is physically or chemically incompatible.
Replacing only missing or damaged roofing tiles or slates rather than replacing the entire roof covering.	Failing to reuse intact slate or tile in good condition when only the roofing substrate or fasteners need replacement.
Replacing an incompatible roof covering or any deteriorated non-historic roof covering with historically-accurate roofing material, if known, or another material that is compatible with the historic character of the building.	
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Designing the Replacement for Missing Historic Features	
Designing and installing a new roof covering for a missing roof or a new feature, such as a dormer or a monitor, when the historic feature is completely missing. It may be an accurate restoration based on documentary and physical evidence, but only when the historic feature to be replaced coexisted with the features currently on the building. Or, it may be a new design that is compatible with the size, scale, material, and color of the historic building.	Creating an inaccurate appearance because the replacement for the missing roof feature is based upon insufficient physical or historic documentation, is not a compatible design, or because the feature to be replaced did not coexist with the features currently on the building. Introducing a new roof feature that is incompatible in size, scale, material, or color.

ROOFS

RECOMMENDED	NOT RECOMMENDED
Alterations and Additions for a New Use	
Installing mechanical and service equipment on the roof (such as heating and air-conditioning units, elevator housing, or solar panels) when required for a new use so that they are inconspicuous on the site and from the public right-of-way and do not damage or obscure character-defining historic features.	Installing roof-top mechanical or service equipment so that it damages or obscures character-defining roof features or is conspicuous on the site or from the public right-of-way.
Designing rooftop additions, elevator or stair towers, decks or terraces, dormers, or skylights when required by a new or continuing use so that they are inconspicuous and minimally visible on the site and from the public right-of-way and do not damage or obscure character-defining historic features.	Changing a character-defining roof form, or damaging or destroying character-defining roofing material as a result of an incompatible rooftop addition or improperly-installed or highly-visible mechanical equipment.
Installing a green roof or other roof landscaping, railings, or furnishings that are not visible on the site or from the public right-of-way and do not damage the roof structure.	Installing a green roof or other roof landscaping, railings, or furnishings that are visible on the site and from the public right-of-way.

[17] New wood elements have been used selectively to replace rotted wood on the underside of the roof in this historic warehouse.

WINDOWS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving windows and their functional and decorative features that are important to the overall character of the building. The window material and how the window operates (e.g., double hung, casement, awning, or hopper) are significant, as are its components (including sash, muntins, ogee lugs, glazing, pane configuration, sills, mullions, casings, or brick molds) and related features, such as shutters.	Removing or substantially changing windows or window features which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Changing the appearance of windows that contribute to the historic character of the building by replacing materials, finishes, or colors which noticeably change the sash, depth of the reveal, and muntin configurations; the reflectivity and color of the glazing; or the appearance of the frame. Obscuring historic wood window trim with metal or other material. Replacing windows solely because of peeling paint, broken glass, stuck sash, or high air infiltration. These conditions, in themselves, do not indicate that windows are beyond repair.
Protecting and maintaining the wood or metal which comprises the window jamb, sash, and trim through appropriate treatments, such as cleaning, paint removal, and reapplication of protective coating systems.	Failing to protect and maintain window materials on a cyclical basis so that deterioration of the window results.
Protecting windows against vandalism before work begins by covering them and by installing alarm systems that are keyed into local protection agencies.	Leaving windows unprotected and subject to vandalism before work begins, thereby also allowing the interior to be damaged if it can be accessed through unprotected windows.
Making windows weathertight by recaulking gaps in fixed joints and replacing or installing weatherstripping.	
Protecting windows from chemical cleaners, paint, or abrasion during work on the exterior of the building.	Failing to protect historic windows from chemical cleaners, paint, or abrasion when work is being done on the exterior of the building.
Protecting and retaining historic glass when replacing putty or repairing other components of the window.	Failing to protect the historic glass when making window repairs.

WINDOWS

RECOMMENDED	NOT RECOMMENDED
Sustaining the historic operability of windows by lubricating friction points and replacing broken components of the operating system (such as hinges, latches, sash chains or cords) and replacing deteriorated gaskets or insulating units.	Failing to maintain windows and window components so that windows are inoperable, or sealing operable sash permanently. Failing to repair and reuse window hardware such as sash lifts, latches, and locks.
Adding storm windows with a matching or a one-over-one pane configuration that will not obscure the characteristics of the historic windows. Storm windows improve energy efficiency and are especially beneficial when installed over wood windows because they also protect them from accelerated deterioration.	
Adding interior storm windows as an alternative to exterior storm windows when appropriate.	

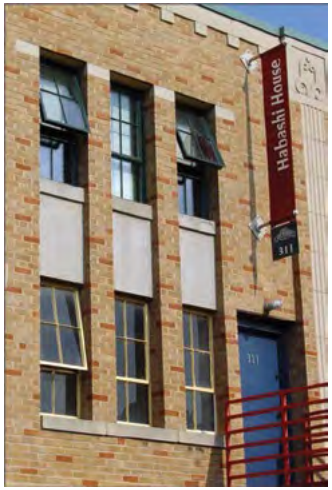
[18] The historic metal storm windows in this 1920s office building were retained and repaired during the rehabilitation project.

[19] Installing a mockup of a proposed replacement window can be helpful to evaluate how well the new windows will match the historic windows that are missing or too deteriorated to repair.

[20 a-d] The original steel windows in this industrial building were successfully repaired as part of the rehabilitation project (left).

WINDOWS

RECOMMENDED	NOT RECOMMENDED
Installing sash locks, window guards, removable storm windows, and other reversible treatments to meet safety, security, or energy conservation requirements.	
Evaluating the overall condition of the windows to determine whether more than protection and maintenance, such as repairs to windows and window features, will be necessary.	Failing to undertake adequate measures to ensure the protection of window features.
Repairing window frames and sash by patching, splicing, consolidating, or otherwise reinforcing them using recognized preservation methods. Repair may include the limited replacement in kind or with a compatible substitute material of those extensively deteriorated, broken, or missing components of features when there are surviving prototypes, such as sash, sills, hardware, or shutters.	Removing window features that could be stabilized, repaired, or conserved using untested consolidants, improper repair techniques, or unskilled personnel, potentially causing further damage to the historic materials. Replacing an entire window when repair of the window and limited replacement of deteriorated or missing components are feasible.
Removing glazing putty that has failed and applying new putty; or, if glass is broken, carefully removing all putty, replacing the glass, and reputtying.	
Installing new glass to replace broken glass which has the same visual characteristics as the historic glass.	
Replacing in kind an entire window that is too deteriorated to repair (if the overall form and detailing are still evident) using the physical evidence as a model to reproduce the feature or when the replacement can be based on historic documentation. If using the same kind of material is not feasible, then a compatible substitute material may be considered.	Removing a character-defining window that is unrepairable or is not needed for the new use and blocking up the opening, or replacing it with a new window that does not match. Using substitute material for the replacement that does not convey the same appearance of the surviving components of the window or that is physically incompatible.



[21] The windows on the lower floor, which were too deteriorated to repair, were replaced with new steel windows matching the upper-floor historic windows that were retained.

WINDOWS

RECOMMENDED	NOT RECOMMENDED
Modifying a historic single-glazed sash to accommodate insulated glass when it will not jeopardize the soundness of the sash or significantly alter its appearance.	Modifying a historic single-glazed sash to accommodate insulated glass when it will jeopardize the soundness of the sash or significantly alter its appearance.
Using low-e glass with the least visible tint in new or replacement windows.	Using low-e glass with a dark tint in new or replacement windows, thereby negatively impacting the historic character of the building.
Using window grids rather than true divided lights on windows on the upper floors of high-rise buildings if they will not be noticeable.	Using window grids rather than true divided lights on windows in low-rise buildings or on lower floors of high-rise buildings where they will be noticeable, resulting in a change to the historic character of the building.
Ensuring that spacer bars in between double panes of glass are the same color as the window sash.	Using spacer bars in between double panes of glass that are not the same color as the window sash.
Replacing all of the components in a glazing system if they have failed because of faulty design or materials that have deteriorated with new material that will improve the window performance without noticeably changing the historic appearance.	Replacing all of the components in a glazing system with new material that will noticeably change the historic appearance.
Replacing incompatible, non-historic windows with new windows that are compatible with the historic character of the building; or reinstating windows in openings that have been filled in.	
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Designing the Replacement for Missing Historic Features	
Designing and installing a new window or its components, such as frames, sash, and glazing, when the historic feature is completely missing. It may be an accurate restoration based on documentary and physical evidence, but only when the historic feature to be replaced coexisted with the features currently on the building. Or, it may be a new design that is compatible with the size, scale, material, and color of the historic building.	Creating an inaccurate appearance because the replacement for the missing window is based upon insufficient physical or historic documentation, is not a compatible design, or because the feature to be replaced did not coexist with the features currently on the building. Installing replacement windows made from other materials that are not the same as the material of the original windows if they would have a noticeably different appearance from the remaining historic windows.

(a)

(b)

(c)

[22] **Not Recommended:** (a-b) The original wood windows in this late-19th-century building, which were highly decorative, could likely have been repaired and retained. (c) Instead, they were replaced with new windows that do not match the detailing of the historic windows and, therefore, do not meet the Standards (above).

[23] (a)This deteriorated historic wood window was repaired and retained (b) in this rehabilitation project.

WINDOWS

RECOMMENDED	NOT RECOMMENDED
Alterations and Additions for a New Use	
Adding new window openings on rear or other secondary, less-visible elevations, if required by a new use. The new openings and the windows in them should be compatible with the overall design of the building but, in most cases, not duplicate the historic fenestration.	Changing the number, location, size, or glazing pattern of windows on primary or highly-visible elevations which will alter the historic character of the building. Cutting new openings on character-defining elevations or cutting new openings that damage or destroy significant features. Adding balconies at existing window openings or new window openings on primary or other highly-visible elevations where balconies never existed and, therefore, would be incompatible with the historic character of the building.
Replacing windows that are too deteriorated to repair using the same sash and pane configuration, but with new windows that operate differently, if necessary, to accommodate a new use. Any change must have minimal visual impact. Examples could include replacing hopper or awning windows with casement windows, or adding a realigned and enlarged operable portion of industrial steel windows to meet life-safety codes.	Replacing a window that contributes to the historic character of the building with a new window that is different in design (such as glass divisions or muntin profiles), dimensions, materials (wood, metal, or glass), finish or color, or location that will have a noticeably different appearance from the historic windows, which may negatively impact the character of the building.
Installing impact-resistant glazing, when necessary for security, so that it is compatible with the historic windows and does not damage them or negatively impact their character.	Installing impact-resistant glazing, when necessary for security, that is incompatible with the historic windows and that damages them or negatively impacts their character.
Using compatible window treatments (such as frosted glass, appropriate shades or blinds, or shutters) to retain the historic character of the building when it is necessary to conceal mechanical equipment, for example, that the new use requires be placed in a location behind a window or windows on a primary or highly-visible elevation.	Removing a character-defining window to conceal mechanical equipment or to provide privacy for a new use of the building by blocking up the opening.

[24] Rotted boards in the beaded-board porch ceiling are being replaced with new matching beaded board.

ENTRANCES AND PORCHES

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving entrances and porches and their functional and decorative features that are important in defining the overall historic character of the building. The materials themselves (including masonry, wood, and metal) are significant, as are their features, such as doors, transoms, pilasters, columns, balustrades, stairs, roofs, and projecting canopies.	Removing or substantially changing entrances and porches which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Cutting new entrances on a primary façade. Altering utilitarian or service entrances so they compete visually with the historic primary entrance; increasing their size so that they appear significantly more important; or adding decorative details that cannot be documented to the building or are incompatible with the building's historic character.
Retaining a historic entrance or porch even though it will no longer be used because of a change in the building's function.	Removing a historic entrance or porch that will no longer be required for the building's new use.
Protecting and maintaining the masonry, wood, and metals which comprise entrances and porches through appropriate surface treatments, such as cleaning, paint removal, and reapplication of protective coating systems.	Failing to protect and maintain entrance and porch materials on a cyclical basis so that deterioration of entrances and porches results.
Protecting entrances and porches against arson and vandalism before work begins by covering them and by installing alarm systems keyed into local protection agencies.	Leaving entrances and porches unprotected and subject to vandalism before work begins, thereby also allowing the interior to be damaged if it can be accessed through unprotected entrances.
Protecting entrance and porch features when working on other features of the building.	Failing to protect materials and features when working on other features of the building.
Evaluating the overall condition of entrances and porches to determine whether more than protection and maintenance, such as repairs to entrance and porch features, will be necessary.	Failing to undertake adequate measures to ensure the protection of entrance and porch features.
Repairing entrances and porches by patching, splicing, consolidating, and otherwise reinforcing them using recognized preservation methods. Repair may include the limited replacement in kind or with a compatible substitute material of those extensively deteriorated features or missing components of features when there are surviving prototypes, such as balustrades, columns, and stairs.	Removing entrances and porches that could be stabilized, repaired, and conserved, or using untested consolidants, improper repair techniques, or unskilled personnel, potentially causing further damage to historic materials. Replacing an entire entrance or porch feature when repair of the feature and limited replacement of deteriorated or missing components are feasible.

ENTRANCES AND PORCHES

RECOMMENDED	NOT RECOMMENDED
Replacing in kind an entire entrance or porch that is too deteriorated to repair (if the overall form and detailing are still evident) using the physical evidence as a model to reproduce the feature or when the replacement can be based on historic documentation. If using the same kind of material is not feasible, then a compatible substitute material may be considered.	Removing an entrance or porch that is unrepairable and not replacing it, or replacing it with a new entrance or porch that does not match. Using a substitute material for the replacement that does not convey the same appearance of the surviving components of entrance or porch features or that is physically incompatible.

[25] The new infill designs for the garage door openings in this commercial building (a) converted for restaurant use and in this mill building (b) rehabilitated for residential use are compatible with the historic character of the buildings.

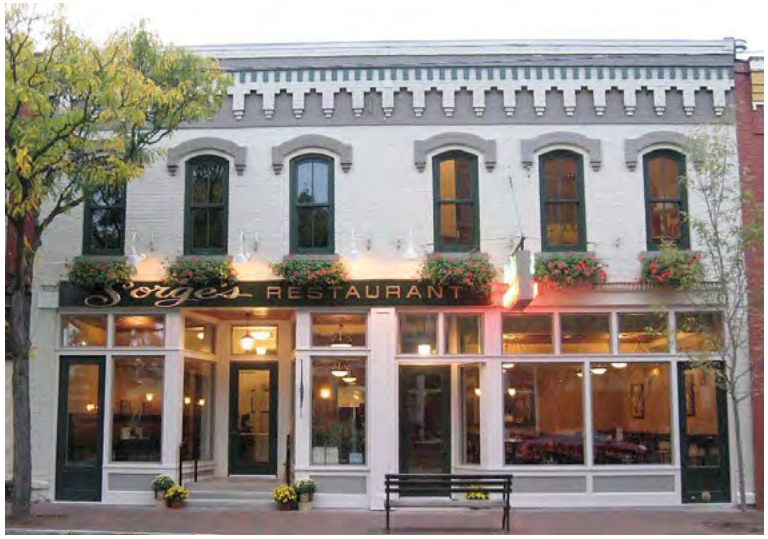
ENTRANCES AND PORCHES

RECOMMENDED	NOT RECOMMENDED
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Designing the Replacement for Missing Historic Features	
Designing and installing a new entrance or porch when the historic feature is completely missing or has previously been replaced by one that is incompatible. It may be an accurate restoration based on documentary and physical evidence, but only when the historic entrance or porch to be replaced coexisted with the features currently on the building. Or, it may be a new design that is compatible with the size, scale, material, and color of the historic building.	Creating an inaccurate appearance because the replacement for the missing entrance or porch is based upon insufficient physical or historic documentation, is not a compatible design, or because the feature to be replaced did not coexist with the features currently on the building.
Alterations and Additions for a New Use	
Enclosing historic porches on secondary elevations only, when required by a new use, in a manner that preserves the historic character of the building (e.g., using large sheets of glass and recessing the enclosure wall behind existing posts and balustrades).	Enclosing porches in a manner that results in a diminution or loss of historic character by using solid materials rather than clear glazing, or by placing the enclosure in front of, rather than behind, the historic features.
Designing and constructing additional entrances or porches on secondary elevations when required for the new use in a manner that preserves the historic character of the building (i.e., ensuring that the new entrance or porch is clearly subordinate to historic primary entrances or porches).	Constructing secondary or service entrances and porches that are incompatible in size and scale or detailing with the historic building or that obscure, damage, or destroy character-defining features.

[26] **Not Recommended:** Installing a screened enclosure is never recommended on a front or otherwise prominent historic porch. In limited instances, it may be possible to add screening on a porch at the rear or on a secondary façade; however, the enclosure should match the color of the porch and be placed behind columns and railings so that it does not obscure these features.

STOREFRONTS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving storefronts and their functional and decorative features that are important in defining the overall historic character of the building. The storefront materials (including wood, masonry, metals, ceramic tile, clear glass, and pigmented structural glass) and the configuration of the storefront are significant, as are features, such as display windows, base panels, bulkheads, signs, doors, transoms, kick plates, corner posts, piers, and entablatures. The removal of inappropriate, non-historic cladding, false mansard roofs, and other later, non-significant alterations can help reveal the historic character of the storefront.	Removing or substantially changing storefronts and their features which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Changing the storefront so that it has a residential rather than commercial appearance. Introducing features from an earlier period that are not compatible with the historic character of the storefront. Changing the location of the storefront's historic main entrance. Replacing or covering a glass transom with solid material or inappropriate signage, or installing an incompatible awning over it.
Retaining later, non-original features that have acquired significance over time.	Removing later features that may have acquired significance.



[28] This new storefront, which replaced one that was missing, is compatible with the historic character of the building.

STOREFRONTS

RECOMMENDED	NOT RECOMMENDED
Protecting and maintaining masonry, wood, glass, ceramic tile, and metals which comprise storefronts through appropriate treatments, such as cleaning, paint removal, and reapplication of protective coating systems.	Failing to protect and maintain storefront materials on a cyclical basis so that deterioration of storefront features results.
Protecting storefronts against arson and vandalism before work begins by covering windows and doors and by installing alarm systems keyed into local protection agencies.	Leaving the storefront unprotected and subject to vandalism before work begins, thereby also allowing the interior to be damaged if it can be accessed through unprotected entrances.
Protecting the storefront when working on other features of the building.	Failing to protect the storefront when working on other features of the building.
Evaluating the overall condition of the storefront to determine whether more than protection and maintenance, such as repairs to storefront features, will be necessary.	Failing to undertake adequate measures to ensure the protection of storefront features.

[27] This original c. 1940s storefront, with its character-defining angled and curved glass display window and recessed entrance with a decorative terrazzo paving, is in good condition and should be retained in a rehabilitation project.

STOREFRONTS

RECOMMENDED	NOT RECOMMENDED
Repairing storefronts by patching, splicing, consolidating, or otherwise reinforcing them using recognized preservation methods. Repair may include the limited replacement in kind or with a compatible substitute material of those extensively deteriorated or missing components of storefronts when there are surviving prototypes, such as transoms, base panels, kick plates, piers, or signs.	Removing storefronts that could be stabilized, repaired, and conserved, or using untested consolidants, improper repair techniques, or unskilled personnel, potentially causing further damage to historic materials.
Replacing in kind an entire storefront that is too deteriorated to repair (if the overall form and detailing are still evident) using the physical evidence as a model to reproduce the feature or when the replacement can be based on historic documentation. If using the same kind of material is not feasible, then a compatible substitute material may be considered.	Replacing a storefront feature when repair of the feature and limited replacement of deteriorated or missing components are feasible. Using a substitute material for the replacement that does not convey the same appearance of the surviving components of the storefront or that is physically incompatible. Removing a storefront that is unrepairable and not replacing it or replacing it with a new storefront that does not match.
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Designing the Replacement for Missing Historic Features	
Designing and installing a new storefront when the historic storefront is completely missing or has previously been replaced by one that is incompatible. It may be an accurate restoration based on documentary and physical evidence, but only when the historic storefront to be replaced coexisted with the features currently on the building. Or, it may be a new design that is compatible with the size, scale, material, and color of the historic building.	Creating an inaccurate appearance because the replacement for the missing storefront is based upon insufficient physical or historic documentation, is not a compatible design, or because the feature to be replaced did not coexist with the features currently on the building. Using new, over-scaled, or internally-lit signs unless there is a historic precedent for them or using other types of signs that obscure, damage, or destroy character-defining features of the storefront and the building.

STOREFRONTS

RECOMMENDED	NOT RECOMMENDED
Replacing missing awnings or canopies that can be historically documented to the building, or adding new signage, awnings, or canopies that are compatible with the historic character of the building.	Adding vinyl awnings, or other awnings that are inappropriately sized or shaped, which are incompatible with the historic character of the building; awnings that do not extend over the entire length of the storefront; or large canopies supported by posts that project out over the sidewalk, unless their existence can be historically documented.
Alterations and Additions for a New Use	
Retaining the glazing and the transparency (i.e., which allows the openness of the interior to be experienced from the exterior) that is so important in defining the character of a historic storefront when the building is being converted for residential use. Window treatments (necessary for occupants' privacy) should be installed that are uniform and compatible with the commercial appearance of the building, such as screens or wood blinds. When display cases still exist behind the storefront, the screening should be set at the back of the display case.	Replacing storefront glazing with solid material for occupants' privacy when the building is being converted for residential use. Installing window treatments in storefront windows that have a residential appearance, which are incompatible with the commercial character of the building. Installing window treatments that are not uniform in a series of repetitive storefront windows.

[29] The rehabilitation of the 1910 Mā'alaea General Store (a), which served the workers' camp at the Wailuku Sugar Company on the Hawaiian island of Maui, included the reconstruction of the original parapet (b).

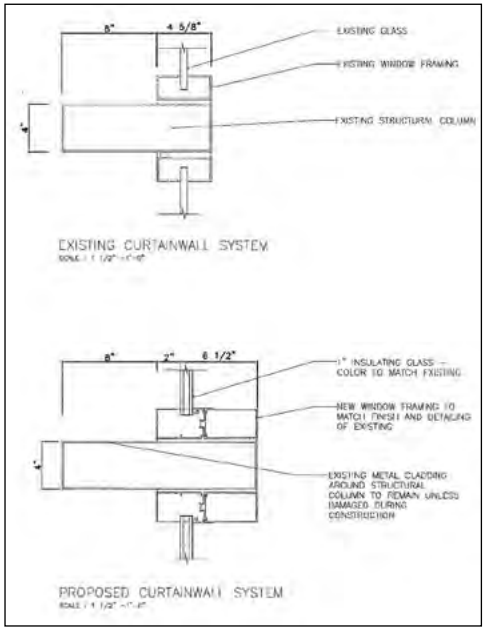
CURTAIN WALLS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving curtain wall systems and their components (metal framing members and glass or opaque panels) that are important in defining the overall historic character of the building. The design of the curtain wall is significant, as are its component materials (metal stick framing and panel materials, such as clear or spandrel glass, stone, terra cotta, metal, and fiber-reinforced plastic), appearance (e.g., glazing color or tint, transparency, and reflectivity), and whether the glazing is fixed, operable or louvered glass panels. How a curtain wall is engineered and fabricated, and the fact that it expands and contracts at a different rate from the building's structural system, are important to understand when undertaking the rehabilitation of a curtain wall system.	Removing or substantially changing curtain wall components which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Replacing historic curtain wall features instead of repairing or replacing only the deteriorated components.
Protecting and maintaining curtain walls and their components through appropriate surface treatments, such as cleaning, paint removal, and reapplication of protective coating systems; and by making them watertight and ensuring that sealants and gaskets are in good condition.	Failing to protect and maintain curtain wall components on a cyclical basis so that deterioration of curtain walls results. Failing to identify, evaluate, and treat various causes of curtain wall failure, such as open gaps between components where sealants have deteriorated or are missing.
Protecting ground-level curtain walls from vandalism before work begins by covering them, while ensuring adequate ventilation, and by installing alarm systems keyed into local protection agencies.	Leaving ground-level curtain walls unprotected and subject to vandalism before work begins, thereby also allowing the interior to be damaged if it can be accessed through unprotected glazing.
Protecting curtain walls when working on other features of the building.	Failing to protect curtain walls when working on other features of the building.
Cleaning curtain wall systems only when necessary to halt deterioration or to remove heavy soiling.	Cleaning curtain wall systems when they are not heavily soiled, thereby needlessly introducing chemicals or moisture into historic materials.

CURTAIN WALLS

RECOMMENDED	NOT RECOMMENDED
Carrying out cleaning tests, when it has been determined that cleaning is appropriate, using only cleaning materials that will not damage components of the system, including factory-applied finishes. Test areas should be examined to ensure that no damage has resulted.	Cleaning curtain wall systems without testing or using cleaning materials that may damage components of the system.
Evaluating the overall condition of curtain walls to determine whether more than protection and maintenance, such as repair of curtain wall components, will be necessary.	Failing to undertake adequate measures to protect curtain wall components.
Repairing curtain walls by ensuring that they are watertight by augmenting existing components or replacing deteriorated or missing sealants or gaskets, where necessary, to seal any gaps between system components. Repair may include the limited replacement of those extensively deteriorated or missing components of curtain walls when there are surviving prototypes.	Removing curtain wall components that could be repaired or using improper repair techniques. Replacing an entire curtain wall system when repair of materials and limited replacement of deteriorated or missing components are feasible.
Applying sealants carefully so that they are not readily visible.	
Replacing in kind a component or components of a curtain wall system that are too deteriorated to repair (if the overall form and detailing are still evident) using the physical evidence as a model to reproduce the feature. If using the same kind of material is not feasible, then a compatible substitute material may be considered as long as it has the same finish and appearance.	Removing a curtain wall component or the entire system, if necessary, that is unrepairable and not replacing it or replacing it with a new component or system that does not convey the same appearance.
Replacing masonry, metal, glass, or other components of a curtain wall system (or the entire system, if necessary) which have failed because of faulty design with substitutes that match the original as closely as possible and which will reestablish the viability and performance of the system.	Using substitute material for the replacement that does not convey the same appearance of the surviving components of the curtain wall or that is physically incompatible.

[30] Rather than replace the original curtain wall system of the 1954 Simms Building in Albuquerque, NM, with a different color tinted glass or coat it with a non-historic reflective film, the HVAC system was updated to improve energy efficiency. *Photo: Harvey M. Kaplan.*



[31 a-c:] (a) The rehabilitation of the First Federal Savings and Loan Association building in Birmingham, AL, constructed in 1961, required replacing the deteriorated historic curtain wall system because the framing and the fasteners holding the spandrel glass and the windows had failed. (b) Comparative drawings show that the differences between the replacement system, which incorporated new insulated glass to meet wind-load requirements, and the original system are minimal. (c) The replacement system, shown after completion of the project, has not altered the historic character of the building.

CURTAIN WALLS

RECOMMENDED	NOT RECOMMENDED
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Designing the Replacement for Missing Historic Features	
Designing and installing a new curtain wall or its components when the historic feature is completely missing. It may be an accurate restoration based on documentary and physical evidence, but only when the historic feature to be replaced coexisted with the features currently on the building. Or, it may be a new design that is compatible with the size, scale, material, and color of the historic building.	Creating an inaccurate appearance because the replacement for the missing curtain wall component is based upon insufficient physical or historic documentation, is not a compatible design, or because the feature did not coexist with the features currently on the building. Introducing a new curtain wall component that is incompatible in size, scale, material, color, and finish.
Alterations and Additions for a New Use	
Installing new glazing or an entire new curtain wall system, when necessary to meet safety-code requirements, with dimensions, detailing, materials, colors, and finish as close as possible to the historic curtain wall components.	Installing new glazing or an entire new curtain wall system, when necessary to meet safety-code requirements, with dimensions and detailing that is significantly different from the historic curtain wall components.
Installing impact-resistant glazing, when necessary for security, so that it is compatible with the historic windows and does not damage them or negatively impact their character.	Installing impact-resistant glazing in a curtain wall system, when necessary for security, that is incompatible with the historic curtain walls and damages them or negatively impacts their character.

STRUCTURAL SYSTEMS

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving structural systems and visible features of systems that are important in defining the overall historic character of the building. This includes the materials that comprise the structural system (i.e., wood, metal and masonry), the type of system, and its features, such as posts and beams, trusses, summer beams, vigas, cast-iron or masonry columns, above-grade stone foundation walls, or load-bearing masonry walls.	Removing or substantially changing visible features of historic structural systems which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Overloading the existing structural system, or installing equipment or mechanical systems which could damage the structure. Replacing a load-bearing masonry wall that could be augmented and retained. Leaving known structural problems untreated, such as deflected beams, cracked and bowed walls, or racked structural members.
Protecting and maintaining the structural system by keeping gutters and downspouts clear and roofing in good repair; and by ensuring that wood structural members are free from insect infestation.	Failing to protect and maintain the structural system on a cyclical basis so that deterioration of the structural system results. Using treatments or products that may retain moisture, which accelerates deterioration of structural members.

[33] Retaining as much as possible of the historic wood sill plate and replacing only the termite-damaged wood is always the preferred and recommended treatment.

STRUCTURAL SYSTEMS

RECOMMENDED	NOT RECOMMENDED
Evaluating the overall condition of the structural system to determine whether more than protection and maintenance, such as repairs to structural features, will be necessary.	Failing to undertake adequate measures to ensure the protection of structural systems.
Repairing the structural system by augmenting individual components, using recognized preservation methods. For example, weakened structural members (such as floor framing) can be paired or sistered with a new member, braced, or otherwise supplemented and reinforced.	Upgrading the building structurally in a manner that diminishes the historic character of the exterior or that damages interior features or spaces. Replacing a historic structural feature in its entirety or in part when it could be repaired or augmented and retained.

[32] (a-b) The rehabilitation of the 1892 Carson Block Building in Eureka, CA, for its owner, the Northern California Indian Development Council, included recreating the missing corner turret and sensitively introducing seismic reinforcement (c) shown here (opposite page) in a secondary upper floor office space. *Photos: Page & Turnbull.*

STRUCTURAL SYSTEMS

RECOMMENDED	NOT RECOMMENDED
Installing seismic or structural reinforcement, when necessary, in a manner that minimizes its impact on the historic fabric and character of the building.	
Replacing in kind or with a compatible substitute material large portions or entire features of the structural system that are either extensively damaged or deteriorated or that are missing when there are surviving prototypes, such as cast-iron columns, trusses, or masonry walls. Substitute material must be structurally sufficient, physically compatible with the rest of the system, and, where visible, must have the same form, design, and appearance as the historic feature.	Using substitute material that does not equal the load-bearing capabilities of the historic material; does not convey the same appearance of the historic material, if it is visible; or is physically incompatible. Installing a visible or exposed structural replacement feature that does not match.
Replacing to match any interior features or finishes that may have to be removed to gain access to make structural repairs, and reusing salvageable material.	

STRUCTURAL SYSTEMS

RECOMMENDED	NOT RECOMMENDED
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Alterations and Additions for a New Use	
Limiting any new excavations next to historic foundations to avoid undermining the structural stability of the building or adjacent historic buildings. The area next to the building foundation should be investigated first to ascertain potential damage to site features or archeological resources.	Carrying out excavations or regrading land adjacent to a historic building which could cause the historic foundation to settle, shift, or fail, or which could destroy significant archeological resources.
Correcting structural deficiencies needed to accommodate a new use in a manner that preserves the structural system and individual character-defining features.	Making substantial changes to significant interior spaces or damaging or destroying features or finishes that are character defining to correct structural deficiencies.
Designing and installing new mechanical or electrical equipment, when necessary, in a manner that minimizes the number and size of cuts or holes in structural members.	Installing new mechanical or electrical equipment in a manner which reduces the load-bearing capacity of historic structural members.
Inserting a new floor when required for the new use if it does not negatively impact the historic character of the interior space; and if it does not damage the structural system, does not abut window glazing, and is not visible from the exterior of the building.	Inserting a new floor that damages or destroys the structural system or abuts window glazing and is visible from the exterior of the building and, thus, negatively impacts its historic character.
Creating an atrium, light court, or lightwell to provide natural light when required for a new use only when it can be done in a manner that preserves the structural system and the historic character of the building.	Removing structural features to create an atrium, light court, or lightwell if it negatively impacts the historic character of the building.

MECHANICAL SYSTEMS: HEATING, AIR CONDITIONING, ELECTRICAL, AND PLUMBING

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving visible features of early mechanical systems that are important in defining the overall historic character of the building, such as radiators, vents, fans, grilles, and plumbing and lighting fixtures.	Removing or substantially changing visible features of mechanical systems that are important in defining the overall historic character of the building so that, as a result, the character is diminished.
Protecting and maintaining mechanical, plumbing, and electrical systems and their features through cyclical maintenance.	Failing to protect and maintain a functioning mechanical system, plumbing, and electrical systems and their visible features on a cyclical basis so that their deterioration results.
Improving the energy efficiency of existing mechanical systems to help reduce the need for a new system by installing storm windows, insulating attics and crawl spaces, or adding awnings, if appropriate.	
Evaluating the overall condition of mechanical systems to determine whether more than protection and maintenance, such as repairs to mechanical system components, will be necessary.	Failing to undertake adequate measures to ensure the protection of mechanical system components.
Repairing mechanical systems by augmenting or upgrading system components (such as installing new pipes and ducts), rewiring, or adding new compressors or boilers.	Replacing a mechanical system when its components could be upgraded and retained.
Replacing in kind or with a compatible substitute material those extensively deteriorated or missing visible features of mechanical systems when there are surviving prototypes, such as ceiling fans, radiators, grilles, or plumbing fixtures.	Installing a visible replacement feature of a mechanical system, if it is important in defining the historic character of the building, that does not convey the same appearance.

MECHANICAL SYSTEMS: HEATING, AIR CONDITIONING, ELECTRICAL, AND PLUMBING

RECOMMENDED	NOT RECOMMENDED
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Alterations and Additions for a New Use	
Installing a new mechanical system, if required, so that it results in the least alteration possible to the historic building and its character-defining features.	Installing a new mechanical system so that character-defining structural or interior features are radically changed, damaged, or destroyed.
Providing adequate structural support for the new mechanical equipment.	Failing to consider the weight and design of new mechanical equipment so that, as a result, historic structural members or finished surfaces are weakened or cracked.
Installing new mechanical and electrical systems and ducts, pipes, and cables in closets, service areas, and wall cavities to preserve the historic character of the interior space.	Installing systems and ducts, pipes, and cables in walls or ceilings in a manner that results in extensive loss or damage or otherwise obscures historic building materials and character-defining features.
Concealing HVAC ductwork in finished interior spaces, when possible, by installing it in secondary spaces (such as closets, attics, basements, or crawl spaces) or in appropriately-located, furred-down soffits.	Leaving HVAC ductwork exposed in most finished spaces or installing soffits in a location that will negatively impact the historic character of the interior or exterior of the building.
Installing exposed ductwork in a finished space when necessary to protect and preserve decorative or other features (such as column capitals, pressed-metal or ornamental plaster ceilings, coffers, or beams) that is painted, and appropriately located so that it will have minimal impact on the historic character of the space.	Installing exposed ductwork in a finished space when necessary to protect and preserve decorative or other features that is not painted, or is located where it will negatively impact the historic character of the space.
Lowering ceilings, installing a dropped ceiling, or constructing soffits to conceal ductwork in a finished space when this will not result in extensive loss or damage to historic materials or decorative and other features, and will not change the overall character of the space or the exterior appearance of the building (i.e., lowered ceilings or soffits visible through window glazing).	Lowering ceilings, installing a dropped ceiling, or constructing soffits to conceal ductwork in a finished space in a manner that results in extensive loss or damage to historic materials or decorative and other features, and will change the overall character of the space or the exterior appearance of the building.

MECHANICAL SYSTEMS: HEATING, AIR CONDITIONING, ELECTRICAL, AND PLUMBING

RECOMMENDED	NOT RECOMMENDED
Installing appropriately located, exposed ductwork in historically-unfinished interior spaces in industrial or utilitarian buildings.	
Installing a split system mechanical unit in a manner that will have minimal impact on the historic character of the interior and result in minimal loss of historic building material.	Installing a split system mechanical unit without considering its impact on the historic character of the interior or the potential loss of historic building material.
Installing heating or air conditioning window units only when the installation of any other system would result in significant damage or loss of historic materials or features.	
Installing mechanical equipment on the roof, when necessary, so that it is minimally visible to preserve the building's historic character and setting.	Installing mechanical equipment on the roof that is overly large or highly visible and negatively impacts the historic character of the building or setting.
Placing air conditioning compressors in a location on a secondary elevation of the historic building that is not highly visible.	Placing air conditioning compressors where they are highly visible and negatively impact the historic character of the building or setting.

[34] The new ceiling ducts installed during the conversion of this historic office building into apartments are minimal in design and discretely placed above the windows.

INTERIOR SPACES, FEATURES, AND FINISHES

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving a floor plan or interior spaces, features, and finishes that are important in defining the overall historic character of the building. Significant spatial characteristics include the size, configuration, proportion, and relationship of rooms and corridors; the relationship of features to spaces; and the spaces themselves, such as lobbies, lodge halls, entrance halls, parlors, theaters, auditoriums, gymnasiums, and industrial and commercial interiors. Color, texture, and pattern are important characteristics of features and finishes, which can include such elements as columns, plaster walls and ceilings, flooring, trim, fireplaces and mantels, paneling, light fixtures, hardware, decorative radiators, ornamental grilles and registers, windows, doors, and transoms; plaster, paint, wallpaper and wall coverings, and special finishes, such as marbleizing and graining; and utilitarian (painted or unpainted) features, including wood, metal, or concrete exposed columns, beams, and trusses and exposed load-bearing brick, concrete, and wood walls.	Altering a floor plan, or interior spaces (including individual rooms), features, and finishes, which are important in defining the overall historic character of the building so that, as a result, the character is diminished. Altering the floor plan by demolishing principal walls and partitions for a new use. Altering or destroying significant interior spaces by inserting additional floors or lofts; cutting through floors to create lightwells, light courts, or atriums; lowering ceilings; or adding new walls or removing historic walls. Relocating an interior feature, such as a staircase, so that the circulation pattern and the historic relationship between features and spaces are altered. Installing new material that obscures or damages character-defining interior features or finishes. Removing paint, plaster, or other finishes from historically-finished interior surfaces to create a new appearance (e.g., removing plaster to expose brick walls or a brick chimney breast, stripping paint from wood to stain or varnish it, or removing a plaster ceiling to expose unfinished beams). Applying paint, plaster, or other coatings to surfaces that have been unfinished historically, thereby changing their character. Changing the type of finish or its color, such as painting a historically-varnished wood feature, or removing paint from a historically-painted feature.

INTERIOR SPACES, FEATURES, AND FINISHES

RECOMMENDED	NOT RECOMMENDED
Retaining decorative or other character-defining features or finishes that typify the showroom or interior of a historic store, such as a pressed-metal ceiling, a beaded-board ceiling, or wainscoting.	Removing decorative or other character-defining features or finishes that typify the showroom or interior of a historic store, such as a pressed-metal ceiling, a beaded-board ceiling, or wainscoting.
Protecting and maintaining historic materials (including plaster, masonry, wood, and metals) which comprise interior spaces through appropriate surface treatments, such as cleaning, paint removal, and reapplication of protective coating systems.	Failing to protect and maintain interior materials and finishes on a cyclical basis so that deterioration of interior features results.
Protecting interior features and finishes against arson and vandalism before project work begins by erecting temporary fencing or by covering broken windows and open doorways, while ensuring adequate ventilation, and by installing alarm systems keyed into local protection agencies.	Leaving the building unprotected and subject to vandalism before work begins, thereby allowing the interior to be damaged if it can be accessed through unprotected entrances.
Protecting interior features (such as a staircase, mantel, flooring, or decorative finishes) from damage during project work by covering them with plywood, heavy canvas, or plastic sheeting.	Failing to protect interior features and finishes when working on the interior.

[35] (a) Although deteriorated, the historic school corridor, shown on the left, with its character-defining features, including doors and transoms, was retained and repaired as part of the rehabilitation project (b).

[36] The elaborate features and finishes of this historic banking hall in the Union Trust Company Building, in Cleveland, OH, were retained and repaired as part of its conversion into a food market.

INTERIOR SPACES, FEATURES, AND FINISHES

RECOMMENDED	NOT RECOMMENDED
Removing damaged or deteriorated paint and finishes only to the next sound layer using the gentlest method possible prior to repainting or refinishing using compatible paint or other coating systems.	Using potentially damaging methods, such as open-flame torches or abrasive techniques, to remove paint or other coatings. Removing paint that is firmly adhered to interior surfaces.
Using abrasive cleaning methods only on the interior of industrial or warehouse buildings with utilitarian, unplastered masonry walls and where wood features are not finished, molded, beaded, or worked by hand. Low-pressure abrasive cleaning (e.g., sand-blasting or other media blasting) should only be considered if test patches show no surface damage and after gentler methods have proven ineffective.	Using abrasive methods anywhere but utilitarian and industrial interior spaces or when there are other methods that are less likely to damage the surface of the material.
Evaluating the overall condition of the interior materials, features, and finishes to determine whether more than protection and maintenance, such as repairs to features and finishes, will be necessary.	Failing to undertake adequate measures to ensure the protection of interior materials, features, and finishes.
Repairing interior features and finishes by patching, splicing, consolidating, or otherwise reinforcing the materials using recognized preservation methods. Repairs may include the limited replacement in kind or with a compatible substitute material of those extensively deteriorated or missing parts of interior features when there are surviving prototypes, such as stairs, balustrades, wood paneling, columns, decorative wall finishes, and ornamental pressed-metal or plaster ceilings. Repairs should be physically and visually compatible.	Removing materials that could be repaired or using improper repair techniques. Replacing an entire interior feature (such as a staircase, mantel, or door surround) or a finish (such as a plaster) when repair of materials and limited replacement of deteriorated or missing components are feasible.

[37] Exposed and painted ducts were appropriately installed here in a retail space in Denver's historic Union Station after considering other options that would have impacted the ceiling height, or damaged or obscured the ornamental plaster crown molding. *Photo: Heritage Consulting Group.*

[39] Leaving the ceiling structure exposed and installing exposed ductwork where it does not impact the windows, are appropriate treatments when rehabilitating an industrial building for another use.

[38] The rehabilitation project retained the industrial character of this historic factory building, which included installation of a fire-rated, clear glass enclosure that allows the stairway, an important interior feature, to remain visible.

INTERIOR SPACES, FEATURES, AND FINISHES

RECOMMENDED	NOT RECOMMENDED
Replacing in kind an entire interior feature that is too deteriorated to repair (if the overall form and detailing are still evident) using the physical evidence as a model to reproduce the feature. Examples could include wainscoting, window and door surrounds, or stairs. If using the same kind of material is not feasible, then a compatible substitute material may be considered.	Removing a character-defining interior feature that is unrepairable and not replacing it, or replacing it with a new feature or finish that does not match the historic feature. Using a substitute material for the replacement that does not convey the same appearance of the interior feature or that is physically incompatible. Using a substitute material for the replacement that does not convey the same appearance of the interior feature or that is physically incompatible.
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Designing the Replacement for Missing Historic Features	
Designing and installing a new interior feature or finish when the historic feature or finish is completely missing. This could include missing walls, stairs, mantels, wood trim, and plaster, or even entire rooms if the historic spaces, features, and finishes are missing or have been destroyed by inappropriate alterations. The design may be an accurate restoration based on documentary and physical evidence, but only when the feature or finish to be replaced coexisted with the features currently in the building. Or, it may be a new design that is compatible with the size, scale, material, and color of the historic building.	Creating an inaccurate appearance because the replacement for the missing feature is based upon insufficient physical or historic documentation; is not a compatible design; or because the feature did not coexist with the feature currently on the building. Introducing a new interior feature or finish that is incompatible in size, scale, material, color, and finish.
Alterations and Additions for a New Use	
Installing new or additional systems required for a new use for the building, such as bathrooms and mechanical equipment, in secondary spaces to preserve the historic character of the most significant interior spaces.	Subdividing primary spaces, lowering ceilings, or damaging or obscuring character-defining features (such as fireplaces, windows, or stairways) to accommodate a new use for the building.

INTERIOR SPACES, FEATURES, AND FINISHES

RECOMMENDED	NOT RECOMMENDED
Installing new mechanical and electrical systems and ducts, pipes, and cables in closets, service areas, and wall cavities to preserve the historic character of interior spaces, features, and finishes.	Installing ducts, pipes, and cables where they will obscure character-defining features or negatively impact the historic character of the interior.
Creating open work areas, when required by the new use, by selectively removing walls only in secondary spaces, less significant upper floors, or other less-visible locations to preserve primary public spaces and circulation systems.	
Retaining the configuration of corridors, particularly in buildings with multiple floors with repetitive plans (such as office and apartment buildings or hotels), where not only the floor plan is character defining, but also the width and the length of the corridor, doorways, transoms, trim, and other features, such as wainscoting and glazing.	Making extensive changes to the character of significant historic corridors by narrowing or radically shortening them, or removing their character-defining features.
Reusing decorative material or features that had to be removed as part of the rehabilitation work (including baseboards, door casing, paneled doors, and wainscoting) and reusing them in areas where these features are missing or are too deteriorated to repair.	Discarding historic material when it can be reused to replace missing or damaged features elsewhere in the building, or reusing material in a manner that may convey a false sense of history.
Installing permanent partitions in secondary, rather than primary, spaces whenever feasible. Removable partitions or partial-height walls that do not destroy the sense of space often may be installed in large character-defining spaces when required by a new use.	Installing partitions that abut windows and glazing or that damage or obscure character-defining spaces, features, or finishes.
Enclosing a character-defining interior stairway, when required by code, with fire-rated glass walls or large, hold-open doors so that the stairway remains visible and its historic character is retained.	Enclosing a character-defining interior stairway for safety or functional reasons in a manner that conceals it or destroys its character.
Locating new, code-required stairways or elevators in secondary and service areas of the historic building.	Making incompatible changes or damaging or destroying character-defining spaces, features, or finishes when adding new code-required stairways and elevators.

[41] **Not Recommended**: Leaving fragments of deteriorated or "sculpted" plaster is not a compatible treatment for either finished or unfinished interior spaces.

[40] **Not Recommended:** Removing a finished ceiling and leaving the structure exposed in a historic retail space does not meet the Standards for Rehabilitation.

INTERIOR SPACES, FEATURES, AND FINISHES

RECOMMENDED	NOT RECOMMENDED
Creating an atrium, light court, or lightwell to provide natural light when required for a new use only when it can be done in a manner that preserves significant interior spaces, features, and finishes or important exterior elevations.	Destroying or damaging character-defining interior spaces, features, or finishes, or damaging the structural system to create an atrium, light court, or lightwell.
Inserting a new floor, mezzanine, or loft when required for a new use if it does not damage or destroy significant interior features and finishes and is not visible from the exterior of the building.	Inserting a new floor, mezzanine, or loft that damages or destroys significant interior features or abuts window glazing and is visible from the exterior of the building, and, thus, negatively impacts its historic character.
Inserting a new floor, when necessary for a new use, only in large assembly spaces that are secondary to another assembly space in the building; in a space that has been greatly altered; or where character-defining features have been lost or are too deteriorated to repair.	Inserting a new floor in significant, large assembly spaces with distinctive features and finishes, which negatively impacts their historic character.
Installing exposed ductwork in a finished space when necessary to protect and preserve decorative or other features (such as column capitals, ornamental plaster or pressed-metal ceilings, coffers, or beams) that is designed, painted, and appropriately located so that it will have minimal impact on the historic character of the space.	Installing exposed ductwork in a finished space when necessary to protect and preserve decorative or other features that is not painted, or is located where it will negatively impact the historic character of the space.
Lowering ceilings, installing a dropped ceiling, or constructing soffits to conceal ductwork in a finished space when they will not result in extensive loss or damage to historic materials or decorative and other features, and will not change the overall character of the space or the exterior appearance of the building (i.e., lowered ceilings or soffits visible through window glazing).	Lowering ceilings, installing a dropped ceiling, or constructing soffits to conceal ductwork in a finished space in a manner that results in extensive loss or damage to historic materials or decorative and other features, and will change the overall character of the space or the exterior appearance of the building.
Installing a split system mechanical unit in a manner that will have minimal impact on the historic character of the interior and will result in minimal loss of historic building material.	Installing a split system mechanical unit without considering its impact on the historic character of the interior or the potential loss of historic building material.

BUILDING SITE

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving features of the building site that are important in defining its overall historic character. Site features may include walls, fences, or steps; circulation systems, such as walks, paths or roads; vegetation, such as trees, shrubs, grass, orchards, hedges, windbreaks, or gardens; landforms, such as hills, terracing, or berms; furnishings and fixtures, such as light posts or benches; decorative elements, such as sculpture, statuary, or monuments; water features, including fountains, streams, pools, lakes, or irrigation ditches; and subsurface archeological resources, other cultural or religious features, or burial grounds which are also important to the site.	Removing or substantially changing buildings and their features or site features which are important in defining the overall historic character of the property so that, as a result, the character is diminished.

[42] This garden is an important character-defining landscape feature on this college campus.

BUILDING SITE

RECOMMENDED	NOT RECOMMENDED
Retaining the historic relationship between buildings and the landscape.	Removing or relocating buildings or landscape features, thereby destroying the historic relationship between buildings and the landscape. Removing or relocating buildings on a site or in a complex of related historic structures (such as a mill complex or farm), thereby diminishing the historic character of the site or complex. Moving buildings onto the site, thereby creating an inaccurate historic appearance. Changing the grade level of the site if it diminishes its historic character. For example, lowering the grade adjacent to a building to maximize use of a basement, which would change the historic appearance of the building and its relation to the site.
Protecting and maintaining buildings and site features by providing proper drainage to ensure that water does not erode foundation walls, drain toward the building, or damage or erode the landscape.	Failing to ensure that site drainage is adequate so that buildings and site features are damaged or destroyed; or, alternatively, changing the site grading so that water does not drain properly.
Correcting any existing irrigation that may be wetting the building excessively.	Neglecting to correct any existing irrigation that may be wetting the building excessively.
Minimizing disturbance of the terrain around buildings or elsewhere on the site, thereby reducing the possibility of destroying or damaging important landscape features, archeological resources, other cultural or religious features, or burial grounds.	Using heavy machinery or equipment in areas where it may disturb or damage important landscape features, archeological resources, other cultural or religious features, or burial grounds.
Surveying and documenting areas where the terrain will be altered to determine the potential impact to important landscape features, archeological resources, other cultural or religious features, or burial grounds.	Failing to survey the building site prior to beginning work, which may result in damage or loss of important landscape features, archeological resources, other cultural or religious features, or burial grounds.

BUILDING SITE

RECOMMENDED	NOT RECOMMENDED
Protecting (e.g., preserving in place) important site features, archeological resources, other cultural or religious features, or burial grounds.	Leaving known site features or archeological material unprotected so that it is damaged during rehabilitation work.
Planning and carrying out any necessary investigation before rehabilitation begins, using professional archeologists and methods, when preservation in place is not feasible.	Allowing unqualified personnel to perform data recovery on archeological resources, which can result in damage or loss of important archeological material
Preserving important landscape features through regularly-scheduled maintenance of historic plant material.	Allowing important landscape features or archeological resources to be lost, damaged, or to deteriorate due to inadequate protection or lack of maintenance
Protecting the building site and landscape features against arson and vandalism before rehabilitation work begins by erecting temporary fencing and by installing alarm systems keyed into local protection agencies.	Leaving the property unprotected and subject to vandalism before work begins so that the building site and landscape features, archeological resources, other cultural or religious features, or burial grounds can be damaged or destroyed. Removing or destroying features from the site, such as fencing, paths or walkways, masonry balustrades, or plant material.
Installing protective fencing, bollards, and stanchions on a building site, when necessary for security, that are as unobtrusive as possible.	Installing protective fencing, bollards, and stanchions on a building site, when necessary for security, without taking into consideration their location and visibility so that they negatively impact the historic character of the site.
Providing continued protection and maintenance of buildings and landscape features on the site through appropriate grounds and landscape management.	Failing to protect and maintain materials and features from the restoration period on a cyclical basis so that deterioration of the site results.
Protecting buildings and landscape features when working on the site.	Failing to protect building and landscape features during work on the site or failing to repair damaged or deteriorated site features.

BUILDING SITE

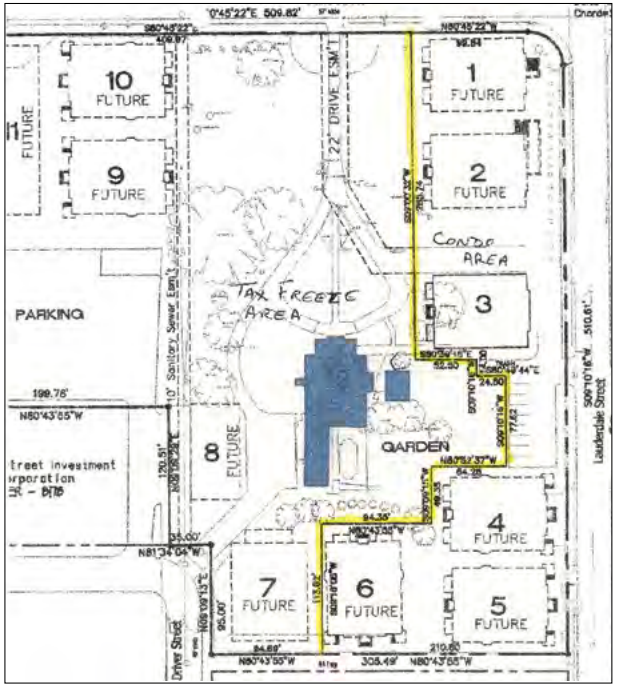
RECOMMENDED	NOT RECOMMENDED
Evaluating the overall condition of materials and features to determine whether more than protection and maintenance, such as repairs to site features, will be necessary.	Failing to undertake adequate measures to ensure the protection of the site.
Repairing historic site features which have been damaged, are deteriorated, or have missing components order reestablish the whole feature and to ensure retention of the integrity of the historic materials. Repairs may include limited replacement in kind or with a compatible substitute material of those extensively deteriorated or missing parts of site features when there are surviving prototypes, such as paving, railings, or individual plants within a group (e.g., a hedge). Repairs should be physically and visually compatible.	Removing materials and features that could be repaired or using improper repair techniques. Replacing an entire feature of the site (such as a fence, walkway, or drive) when repair of materials and limited replacement of deteriorated or missing components are feasible.

[43] The industrial character of the site was retained when this brewery complex was rehabilitated for residential use.

[44] **Not Recommended:** (a-b) The historic character of this plantation house (marked in blue on plan on opposite page) and its site was diminished and adversely impacted when multiple new buildings like this (#3 on plan) were constructed on the property (c).

BUILDING SITE

RECOMMENDED	NOT RECOMMENDED
Replacing in kind an entire feature of the site that is too deteriorated to repair (if the overall form and detailing are still evident) using the physical evidence as a model to reproduce the feature. Examples could include a walkway or a fountain, a land form, or plant material. If using the same kind of material is not feasible, then a compatible substitute material may be considered.	Removing a character-defining feature of the site that is unrepairable and not replacing it, or replacing it with a new feature that does not match. Using a substitute material for the replacement that does not convey the same appearance of the surviving site feature or that is physically or ecologically incompatible. Adding conjectural landscape features to the site (such as period reproduction light fixtures, fences, fountains, or vegetation) that are historically inappropriate, thereby creating an inaccurate appearance of the site.



[45] Undertaking a survey to document archeological resources may be considered in some rehabilitation projects when a new exterior addition is planned.

BUILDING SITE

RECOMMENDED	NOT RECOMMENDED
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Designing the Replacement for Missing Historic Features	
Designing and installing a new feature on a site when the historic feature is completely missing. This could include missing outbuildings, terraces, drives, foundation plantings, specimen trees, and gardens. The design may be an accurate restoration based on documentary and physical evidence, but only when the feature to be replaced coexisted with the features currently on the site. Or, it may be a new design that is compatible with the historic character of the building and site.	Creating an inaccurate appearance because the replacement for the missing feature is based upon insufficient physical or historic documentation, is not a compatible design, or because the feature did not coexist with the features currently on the site. Introducing a new feature, including plant material, that is visually incompatible with the site or that alters or destroys the historic site patterns or use.
Alterations and Additions for a New Use	
Designing new onsite features (such as parking areas, access ramps, or lighting), when required by a new use, so that they are as unobtrusive as possible, retain the historic relationship between the building or buildings and the landscape, and are compatible with the historic character of the property.	Locating parking areas directly adjacent to historic buildings where vehicles may cause damage to buildings or landscape features or when they negatively impact the historic character of the building site if landscape features and plant materials are removed.
Designing new exterior additions to historic buildings or adjacent new construction that are compatible with the historic character of the site and preserves the historic relationship between the building or buildings and the landscape.	Introducing new construction on the building site which is visually incompatible in terms of size, scale, design, material, or color, which destroys historic relationships on the site, or which damages or destroys important landscape features, such as replacing a lawn with paved parking areas or removing mature trees to widen a driveway.
Removing non-significant buildings, additions, or site features which detract from the historic character of the site.	Removing a historic building in a complex of buildings or removing a building feature or a landscape feature which is important in defining the historic character of the site.
Locating an irrigation system needed for a new or continuing use of the site where it will not cause damage to historic buildings.	Locating an irrigation system needed for a new or continuing use of the site where it will damage historic buildings.

SETTING (DISTRICT / NEIGHBORHOOD)

RECOMMENDED	NOT RECOMMENDED
Identifying, retaining, and preserving building and landscape features that are important in defining the overall historic character of the setting. Such features can include circulation systems, such as roads and streets; furnishings and fixtures, such as light posts or benches; vegetation, gardens and yards; adjacent open space, such as fields, parks, commons, or woodlands; and important views or visual relationships.	Removing or substantially changing those building and landscape features in the setting which are important in defining the historic character so that, as a result, the character is diminished.

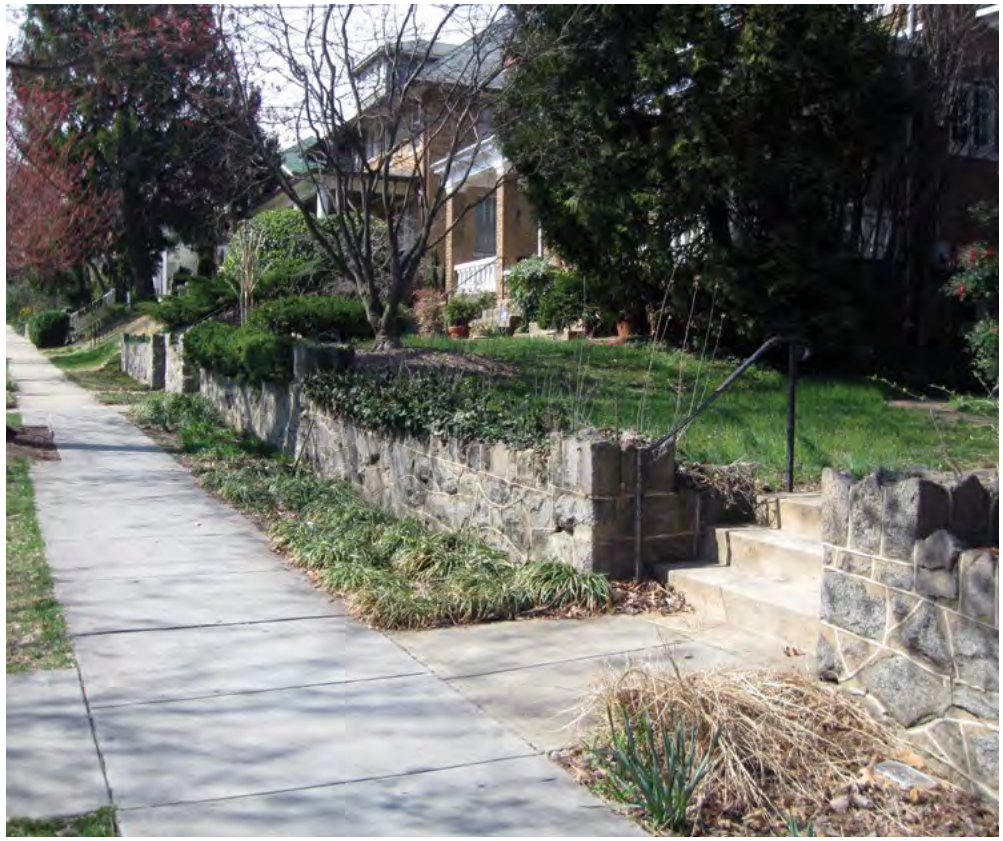
[46] The varied size, shapes, and architectural styles of these historic buildings are unique to this street in Christiansted, St. Croix, USVI, and should be retained in a rehabilitation project.

[47] Original paving stones contribute to the character of the historic setting and distinguish this block from other streets in the district.

[48] Old police and fire call boxes, which are distinctive features in this historic district, have been retained, and now showcase work by local artists.

SETTING (DISTRICT / NEIGHBORHOOD)

RECOMMENDED	NOT RECOMMENDED
Retaining the historic relationship between buildings and landscape features in the setting. For example, preserving the relationship between a town common or urban plaza and the adjacent houses, municipal buildings, roads, and landscape and streetscape features.	Altering the relationship between the buildings and landscape features in the setting by widening existing streets, changing landscape materials, or locating new streets or parking areas where they may negatively impact the historic character of the setting. Removing or relocating buildings or landscape features, thereby destroying the historic relationship between buildings and the landscape in the setting.



[49] Low stone walls are character-defining features in this hilly, early-20th-century residential neighborhood.

SETTING (DISTRICT / NEIGHBORHOOD)

RECOMMENDED	NOT RECOMMENDED
Protecting and maintaining historic features in the setting through regularly-scheduled maintenance and grounds and landscape management.	Failing to protect and maintain materials in the setting on a cyclical basis so that deterioration of buildings and landscape features results. Stripping or removing historic features from buildings or the setting, such as a porch, fencing, walkways, or plant material.
Installing protective fencing, bollards, and stanchions in the setting, when necessary for security, that are as unobtrusive as possible.	Installing protective fencing, bollards, and stanchions in the setting, when necessary for security, without taking into consideration their location and visibility so that they negatively impact the historic character of the setting.
Protecting buildings and landscape features when undertaking work in the setting.	Failing to protect buildings and landscape features during work in the setting.
Evaluating the overall condition of materials and features to determine whether more than protection and maintenance, such as repairs to materials and features in the setting, will be necessary.	Failing to undertake adequate measures to ensure the protection of materials and features in the setting.
Repairing features in the setting by reinforcing the historic materials. Repairs may include the replacement in kind or with a compatible substitute material of those extensively deteriorated or missing parts of setting features when there are surviving prototypes, such as fencing, paving materials, trees, and hedgerows. Repairs should be physically and visually compatible.	Failing to repair and reinforce damaged or deteriorated historic materials and features in the setting. Removing material that could be repaired or using improper repair techniques. Replacing an entire feature of the building or landscape in the setting when repair of materials and limited replacement of deteriorated or missing components are feasible.

SETTING (DISTRICT / NEIGHBORHOOD)

RECOMMENDED	NOT RECOMMENDED
Replacing in kind an entire building or landscape feature in the setting that is too deteriorated to repair (if the overall form and detailing are still evident) using the physical evidence as a model to reproduce the feature. If using the same kind of material is not feasible, then a compatible substitute material may be considered.	Removing a character-defining feature of the building or landscape from the setting that is unrepairable and not replacing it or replacing it with a new feature that does not match. Using a substitute material for the replacement that does not convey the same appearance of the surviving building or landscape feature in the setting or that is physically or ecologically incompatible.
The following work is highlighted to indicate that it is specific to **Rehabilitation** *projects and should only be considered after the preservation concerns have been addressed.*	
Designing the Replacement for Missing Historic Features	
Designing and installing a new feature of the building or landscape in the setting when the historic feature is completely missing. This could include missing steps, streetlights, terraces, trees, and fences. The design may be an accurate restoration based on documentary and physical evidence, but only when the feature to be replaced coexisted with the features currently in the setting. Or, it may be a new design that is compatible with the historic character of the setting.	Creating an inaccurate appearance because the replacement for the missing feature is based upon insufficient physical or historic documentation; is not a compatible design, or because the feature did not coexist with the features currently in the setting. Introducing a new building or landscape feature that is visually or otherwise incompatible with the setting's historic character (e.g., replacing low metal fencing with a high wood fence).
Alterations and Additions for a New Use	
Designing new features (such as parking areas, access ramps, or lighting), when required by a new use, so that they are as unobtrusive as possible, retain the historic relationships between buildings and the landscape in the setting, and are compatible with the historic character of the setting.	Locating parking areas directly adjacent to historic buildings where vehicles may cause damage to buildings or landscape features or when they negatively impact the historic character of the setting if landscape features and plant materials are removed.
Designing new exterior additions to historic buildings or adjacent new construction that are compatible with the historic character of the setting that preserve the historic relationship between the buildings and the landscape.	Introducing new construction into historic districts which is visually incompatible or that destroys historic relationships within the setting, or which damages or destroys important landscape features.
Removing non-significant buildings, additions, or landscape features which detract from the historic character of the setting.	Removing a historic building, a building feature, or landscape feature which is important in defining the historic character of the setting.

CODE-REQUIRED WORK

RECOMMENDED	NOT RECOMMENDED
Sensitive solutions to meeting accessibility and life-safety code requirements are an important part of protecting the historic character of the building and site. Thus, work that must be done to meet use-specific code requirements should be considered early in planning a ***Rehabilitation*** *of a historic building for a new use. Because code mandates are directly related to occupancy, some uses require less change than others and, thus, may be more appropriate for a historic building. Early coordination with code enforcement authorities can reduce the impact of alterations necessary to comply with current codes.*	
ACCESSIBILITY	
Identifying the historic building's character-defining exterior features, interior spaces, features, and finishes, and features of the site and setting which may be affected by accessibility code-required work.	Undertaking accessibility code-required alterations before identifying those exterior features, interior spaces, features, and finishes, and features of the site and setting which are character defining and, therefore, must be preserved.
Complying with barrier-free access requirements in such a manner that the historic building's character-defining exterior features, interior spaces, features, and finishes, and features of the site and setting are preserved or impacted as little as possible.	Altering, damaging, or destroying character-defining exterior features, interior spaces, features, and finishes, or features of the site and setting while making modifications to a building, its site, or setting to comply with accessibility requirements.

[50] This kitchen in a historic apartment complex was rehabilitated to meet accessibility requirements.

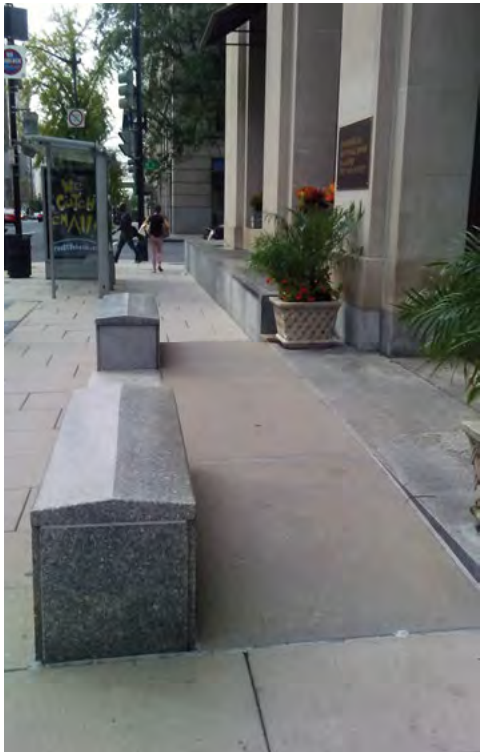
[51] A new interior access ramp with a simple metal railing is compatible with the character of this mid-century-modern building.

CODE-REQUIRED WORK

RECOMMENDED	NOT RECOMMENDED
Working with specialists in accessibility and historic preservation to determine the most sensitive solutions to comply with access requirements in a historic building, its site, or setting.	Making changes to historic buildings, their sites, or setting without first consulting with specialists in accessibility and historic preservation to determine the most appropriate solutions to comply with accessibility requirements.
Providing barrier-free access that promotes independence for the user while preserving significant historic features.	Making modifications for accessibility that do not provide independent, safe access while preserving historic features.
Finding solutions to meet accessibility requirements that minimize the impact of any necessary alteration on the historic building, its site, and setting, such as compatible ramps, paths, and lifts.	Making modifications for accessibility without considering the impact on the historic building, its site, and setting.

[52] The access ramp blends in with the stone façade of the First National Bank in Stephenville, TX, and is appropriately located on the side where it is does not impact the historic character of the building. *Photo: Nancy McCoy, QuimbyMcCoy Preservation Architecture, LLP.*

[53] This entrance ramp (right) is compatible with the historic character of this commercial building.



[54] The gently-sloped path in a historic park in Kansas City, MO, which accesses the memorial below, includes a rest area part way up the hill. *Photo: STRATA Architecture + Preservation.*

CODE-REQUIRED WORK

RECOMMENDED	NOT RECOMMENDED
Using relevant sections of existing codes regarding accessibility for historic buildings that provide alternative means of code compliance when code-required work would otherwise negatively impact the historic character of the property.	
Minimizing the impact of accessibility ramps by installing them on secondary elevations when it does not compromise accessibility or by screening them with plantings.	Installing elevators, lifts, or incompatible ramps at a primary entrance, or relocating primary entrances to secondary locations to provide access without investigating other options or locations.
Adding a gradual slope or grade to the sidewalk, if appropriate, to access the entrance rather than installing a ramp that would be more intrusive to the historic character of the building and the district.	
Adding an exterior stair or elevator tower that is compatible with the historic character of the building in a minimally-visible location only when it is not possible to accommodate it on the interior without resulting in the loss of significant historic spaces, features, or finishes.	
Installing a lift as inconspicuously as possible when it is necessary to locate it on a primary elevation of the historic building.	
Installing lifts or elevators on the interior in secondary or less significant spaces where feasible.	Installing lifts or elevators on the interior in primary spaces which will negatively impact the historic character of the space.

[55] The lift is compatible with the industrial character of this former warehouse.

CODE-REQUIRED WORK

RECOMMENDED	NOT RECOMMENDED
LIFE SAFETY	
Identifying the historic building's character-defining exterior features, interior spaces, features, and finishes, and features of the site and setting which may be affected by life-safety code-required work.	Undertaking life-safety code-required alterations before identifying those exterior features, interior spaces, features, and finishes, and features of the site and setting which are character defining and, therefore, must be preserved.
Complying with life-safety codes (including requirements for impact-resistant glazing, security, and seismic retrofit) in such a manner that the historic building's character-defining exterior features, interior spaces, features, and finishes, and features of the site and setting are preserved or impacted as little as possible.	Altering, damaging, or destroying character-defining exterior features, interior spaces, features, and finishes, or features of the site and setting while making modifications to a building, its site, or setting to comply with life-safety code requirements.
Removing building materials only after testing has been conducted to identify hazardous materials, and using only the least damaging abatement methods.	Removing building materials without testing first to identify the hazardous materials, or using potentially damaging methods of abatement.
Providing workers with appropriate personal equipment for protection from hazards on the worksite.	Removing hazardous or toxic materials without regard for workers' health and safety or environmentally-sensitive disposal of the materials.
Working with code officials and historic preservation specialists to investigate systems, methods, or devices to make the building compliant with life-safety codes to ensure that necessary alterations will be compatible with the historic character of the building.	Making life-safety code-required changes to the building without consulting code officials and historic preservation specialists, with the result that alterations negatively impact the historic character of the building.
Using relevant sections of existing codes regarding life safety for historic buildings that provide alternative means of code compliance when code-required work would otherwise negatively impact the historic character of the building.	

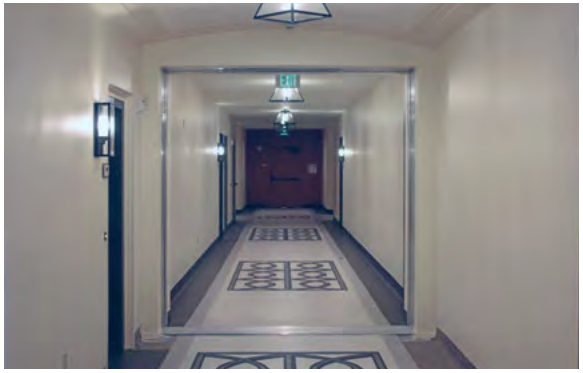
[56 a-b] In order to continue in its historic use, the door openings of this 1916 Colonial Revival-style fire station had to be widened to accommodate the larger size of modern fire trucks. Although this resulted in some change to the arched door surrounds, it is minimal and does not negatively impact the historic character of the building. (a) Above, before; *Photo: Fire and Emergency Medical Services Department (FEMS), Washington, D.C.;* below, after.

[57] Workers wear protective clothing while removing lead paint from metal features.

[59] (a-b) The decorative concrete balcony railings on this 1960s building did not meet life-safety code requirements. They were replaced with new glass railings with a fritted glass pattern matching the original design—a creative solution that satisfies codes, while preserving the historic appearance of the building when viewed from the street (c-d). *Photos: (a, b, d) ERA Architects, Inc.; (c) Nathan Cyprys, photographer*.

CODE-REQUIRED WORK

RECOMMENDED	NOT RECOMMENDED
Upgrading historic stairways and elevators to meet life-safety codes so that they are not damaged or otherwise negatively impacted.	Damaging or making inappropriate alterations to historic stairways and elevators or to adjacent features, spaces, or finishes in the process of doing work to meet code requirements.
Installing sensitively-designed fire-suppression systems, such as sprinklers, so that historic features and finishes are preserved.	Covering character-defining wood features with fire-retardant sheathing, which results in altering their appearance.
Applying fire-retardant coatings when appropriate, such as intumescent paint, to protect steel structural systems.	Using fire-retardant coatings if they will damage or obscure character-defining features.
Adding a new stairway or elevator to meet life-safety code requirements in a manner that preserves adjacent character-defining features and spaces.	Altering, damaging, or destroying character-defining spaces, features, or finishes when adding a new code-required stairway or elevator.
Using existing openings on secondary or less-visible elevations or, if necessary, creating new openings on secondary or less-visible elevations to accommodate second egress requirements.	Using a primary or other highly-visible elevation to accommodate second egress requirements without investigating other options or locations.
Placing a code-required stairway or elevator that cannot be accommodated within the historic building in a new exterior addition located on a secondary or minimally-visible elevation.	Constructing a new addition to accommodate code-required stairs or an elevator on character-defining elevations or where it will obscure, damage, or destroy character-defining features of the building, its site, or setting.
Designing a new exterior stairway or elevator tower addition that is compatible with the historic character of the building.	



[58] Fire doors that retract into the walls have been installed here (not visible in photo) preserve the historic character of this corridor.

RESILIENCE TO NATURAL HAZARDS

RECOMMENDED	NOT RECOMMENDED
Resilience to natural hazards should be addressed as part of the treatment ***Rehabilitation****. A historic building may have existing characteristics or features that help address or minimize the impacts of natural hazards. These should be used to best advantage and should be taken into consideration early in the planning stages of a rehabilitation project before proposing any new treatments. When new adaptive treatments are needed they should be carried out in a manner that will have the least impact on the historic character of the building, its site, and setting. .*	
Identifying the vulnerabilities of the historic property to the impacts of natural hazards (such as wildfires, hurricanes, or tornadoes) using the most current climate information and data available.	Failing to identify and periodically reevaluate the potential vulnerability of the building, its site, and setting to the impacts of natural hazards.
Assessing the potential impacts of known vulnerabilities on character-defining features of the building, its site, and setting; and reevaluating and reassessing potential impacts on a regular basis.	
Documenting the property and character-defining features as a record and guide for future repair work, should it be necessary, and storing the documentation in a weatherproof location.	Failing to document the historic property and its character-defining features with the result that such information is not available in the future to guide repair or reconstruction work, should it be necessary.
Ensuring that historic resources inventories and maps are accurate, up to date, and accessible in times of emergency.	
Maintaining the building, its site, and setting in good repair, and regularly monitoring character-defining features.	Failing to regularly monitor and maintain the property and the building systems in good repair.
Using and maintaining existing characteristics and features of the historic building, its site, setting, and larger environment (such as shutters for storm protection or a site wall that keeps out flood waters) that may help to avoid or minimize the impacts of natural hazards	Allowing loss, damage, or destruction to occur to the historic building, its site, or setting by failing to evaluate potential future impacts of natural hazards or to plan and implement adaptive measures, if necessary to address possible threats.
Undertaking work to prevent or minimize the loss, damage, or destruction of the historic property while retaining and preserving significant features and the overall historic character of the building, its site, and setting.	Carrying out adaptive measures intended to address the impacts of natural hazards that are unnecessarily invasive or will otherwise adversely impact the historic character of the building, its site, or setting.

[60] In some instances, it may be necessary to elevate a historic building located in a floodplain to protect it. But this treatment is appropriate only if elevating the building will retain its historic character, including its relationship to the site, and its new height will be compatible with surrounding buildings if in a historic district. The house on the right, which has been raised only slightly, has retained its historic character. The house on the left has been raised several feet higher, resulting in a greater impact on the historic character of the house and the district.

RESILIENCE TO NATURAL HAZARDS

RECOMMENDED	NOT RECOMMENDED
Ensuring that, when planning work to adapt for natural hazards, all feasible alternatives are considered, and that the options requiring the least alteration are considered first.	
Implementing local and regional traditions (such as elevating residential buildings at risk of flooding or reducing flammable vegetation around structures in fire-prone areas) for adapting buildings and sites in response to specific natural hazards, when appropriate. Such traditional methods may be appropriate if they are compatible with the historic character of the building, its site, and setting.	Implementing a treatment traditionally used in another region or one typically used for a different property type or architectural style which is not compatible with the historic character of the property.
Using special exemptions and variances when adaptive treatments to protect buildings from known hazards would otherwise negatively impact the historic character of the building, its site, and setting.	
Considering adaptive options, whenever possible, that would protect multiple historic resources, if the treatment can be implemented without negatively impacting the historic character of the district, or archeological resources, other cultural or religious features, or burial grounds.	

Sustainability

Sustainability is usually a very important and integral part of the treatment **Rehabilitation.** Existing energy-efficient features should be taken into consideration early in the planning stages of a rehabilitation project before proposing any energy improvements. There are numerous treatments that may be used to upgrade a historic building to help it operate more efficiently while retaining its character.

The topic of sustainability is addressed in detail in **The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings.**

NEW EXTERIOR ADDITIONS TO HISTORIC BUILDINGS AND RELATED NEW CONSTRUCTION

RECOMMENDED	NOT RECOMMENDED
New Additions	
Placing functions and services required for a new use (including elevators and stairways) in secondary or non-character-defining interior spaces of the historic building rather than constructing a new addition.	Expanding the size of the historic building by constructing a new addition when requirements for the new use could be met by altering non-character-defining interior spaces.
Constructing a new addition on a secondary or non-character-defining elevation and limiting its size and scale in relationship to the historic building.	Constructing a new addition on or adjacent to a primary elevation of the building which negatively impacts the building's historic character.
Constructing a new addition that results in the least possible loss of historic materials so that character-defining features are not obscured, damaged, or destroyed.	Attaching a new addition in a manner that obscures, damages, or destroys character-defining features of the historic building.
Designing a new addition that is compatible with the historic building.	Designing a new addition that is significantly different and, thus, incompatible with the historic building.
Ensuring that the addition is subordinate and secondary to the historic building and is compatible in massing, scale, materials, relationship of solids to voids, and color.	Constructing a new addition that is as large as or larger than the historic building, which visually overwhelms it (i.e., results in the diminution or loss of its historic character).

NEW EXTERIOR ADDITIONS TO HISTORIC BUILDINGS AND RELATED NEW CONSTRUCTION

RECOMMENDED	NOT RECOMMENDED
Using the same forms, materials, and color range of the historic building in a manner that does not duplicate it, but distinguishes the addition from the original building.	Duplicating the exact form, material, style, and detailing of the historic building in a new addition so that the new work appears to be historic.
Basing the alignment, rhythm, and size of the window and door openings of the new addition on those of the historic building.	
Incorporating a simple, recessed, small-scale hyphen, or connection, to physically and visually separate the addition from the historic building.	
Distinguishing the addition from the original building by setting it back from the wall plane of the historic building.	

[61 a-b] The materials, design, and location at the back of the historic house are important factors in making this a compatible new addition. *Photos: © Maxwell MacKenzie.*

NEW EXTERIOR ADDITIONS TO HISTORIC BUILDINGS AND RELATED NEW CONSTRUCTION

RECOMMENDED	NOT RECOMMENDED
Ensuring that the addition is stylistically appropriate for the historic building type (e.g., whether it is residential or institutional).	
Considering the design for a new addition in terms of its relationship to the historic building as well as the historic district, neighborhood, and setting.	

[62] The stair tower at the rear of this commercial building is a compatible new addition.

NEW EXTERIOR ADDITIONS TO HISTORIC BUILDINGS AND RELATED NEW CONSTRUCTION

RECOMMENDED	NOT RECOMMENDED
Rooftop Additions	
Designing a compatible rooftop addition for a multi-story building, when required for a new use, that is set back at least one full bay from the primary and other highly-visible elevations and that is inconspicuous when viewed from surrounding streets.	Constructing a rooftop addition that is highly visible, which negatively impacts the character of the historic building, its site, setting, or district.

[63] (a) A mockup should be erected to demonstrate the visibility of a proposed rooftop addition and its potential impact on the historic building. Based on review of this mockup (orange marker), it was determined that the rooftop addition would meet the Standards (b). The addition is unobtrusive and blends in with the building behind it.

New addition

NEW EXTERIOR ADDITIONS TO HISTORIC BUILDINGS AND RELATED NEW CONSTRUCTION

RECOMMENDED	NOT RECOMMENDED
Limiting a rooftop addition to one story in height to minimize its visibility and its impact on the historic character of the building.	Constructing a highly-visible, multi-story rooftop addition that alters the building's historic character. Constructing a rooftop addition on low-rise, one- to three-story historic buildings that is highly visible, overwhelms the building, and negatively impacts the historic district. Constructing a rooftop addition with amenities (such as a raised pool deck with plantings, HVAC equipment, or screening) that is highly visible and negatively impacts the historic character of the building.

[64] **Not Recommended:** It is generally not appropriate to construct a rooftop addition on a low-rise, two- to three-story building such as this, because it negatively affects its historic character.

NEW EXTERIOR ADDITIONS TO HISTORIC BUILDINGS AND RELATED NEW CONSTRUCTION

RECOMMENDED	NOT RECOMMENDED
Related New Construction	
Adding a new building to a historic site or property only if the requirements for a new or continuing use cannot be accommodated within the existing structure or structures.	Adding a new building to a historic site or property when the project requirements could be accommodated within the existing structure or structures.
Locating new construction far enough away from the historic building, when possible, where it will be minimally visible and will not negatively affect the building's character, the site, or setting.	Placing new construction too close to the historic building so that it negatively impacts the building's character, the site, or setting.

[65] (a) This (far left) is a compatible new outbuilding constructed on the site of a historic plantation house (b). Although traditional in design, it is built of wood to differentiate it from the historic house (which is scored stucco) located at the back of the site so as not to impact the historic house, and minimally visible from the public right-of-way (c).

NEW EXTERIOR ADDITIONS TO HISTORIC BUILDINGS AND RELATED NEW CONSTRUCTION

RECOMMENDED	NOT RECOMMENDED
Designing new construction on a historic site or in a historic setting that it is compatible but differentiated from the historic building or buildings.	Replicating the features of the historic building when designing a new building, with the result that it may be confused as historic or original to the site or setting.
Considering the design for related new construction in terms of its relationship to the historic building as well as the historic district and setting.	
Ensuring that new construction is secondary to the historic building and does not detract from its significance.	Adding new construction that results in the diminution or loss of the historic character of the building, including its design, materials, location, or setting. Constructing a new building on a historic property or on an adjacent site that is much larger than the historic building. Designing new buildings or groups of buildings to meet a new use that are not compatible in scale or design with the character of the historic building and the site, such as apartments on a historic school property that are too residential in appearance.
Using site features or land formations, such as trees or sloping terrain, to help minimize the new construction and its impact on the historic building and property.	
Designing an addition to a historic building in a densely-built location (such as a downtown commercial district) to appear as a separate building or infill, rather than as an addition. In such a setting, the addition or the infill structure must be compatible with the size and scale of the historic building and surrounding buildings—usually the front elevation of the new building should be in the same plane (i.e., not set back from the historic building). This approach may also provide the opportunity for a larger addition or infill when the façade can be broken up into smaller elements that are consistent with the scale of the historic building and surrounding buildings.	

FHR-8-300 (11-78)

United States Department of the Interior
Heritage Conservation and Recreation Service

National Register of Historic Places Inventory—Nomination Form

For HCRS use only
received JAN 14 1980
date entered FEB 27 1980

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic Administration Building, ~~Eastern Oregon State College~~

and/or common

2. Location

Eastern Oregon State College campus

street & number 8th Street and K Avenue ___ not for publication

city, town La Grande ___ vicinity of congressional district 2

state Oregon code 41 county Union code 061

3. Classification

Category	Ownership	Status	Present Use	
___ district	X public	X occupied	___ agriculture	___ museum
X building(s)	___ private	___ unoccupied	___ commercial	___ park
___ structure	___ both	___ work in progress	X educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	___ in process	___ yes: restricted	___ government	___ scientific
	___ being considered	X yes: unrestricted	___ industrial	___ transportation
		___ no	___ military	___ other:

4. Owner of Property

name Oregon State System of Higher Education

street & number University of Oregon

city, town Eugene ___ vicinity of state Oregon 97403

5. Location of Legal Description

courthouse, registry of deeds, etc. Registry of Deeds, Union County Courthouse

street & number 1100 L. Avenue

city, town La Grande state Oregon 97850

6. Representation in Existing Surveys

title Statewide Inventory of Hist. Properties has this property been determined elegible? ___ yes XX no

date 1969 ___ federal X state ___ county ___ local

depository for survey records State Historic Preservation Office

city, town Salem state Oregon 97310

7. Description

Condition		Check one	Check one
X excellent	___ deteriorated	___ unaltered	X original site
___ good	___ ruins	X altered	___ moved date _____
___ fair	___ unexposed		

Describe the present and original (if known) physical appearance

The Administration Building, Eastern Oregon State College, was designed in 1927 by John V. Bennes (Bennes and Herzog, Portland) and erected in 1929. It is a modern adaptation of ItaliaN Renaissance palatial architecture and includes a formal grand stair with overlook terrace. Originally Eastern Oregon State Normal School, it housed all functions appropriate to a teacher training institution until a separate unit, J. H. Ackerman Laboratory School, was added to the campus in 1935. The nominated structure formed the nucleus of what is now Eastern Oregon State College and remains in excellent condition, with few major alterations; there have been no basic structural changes and no additions. At the present time it houses administrative offices and the Humanities Division. The building and grand stair were designed as an architectural unit and are being nominated as such.

Site

The site is located on an alluvial bench composed of gravel cohered, and in part cemented by a stiff binding clay. This type of formation is known as fanglomerate, or more commonly as cement gravel. The north or leading edge of the bench rises abruptly from a flood plain to an elevation approximately forty feet above it. The nominated structure is site upon this eminence, its formal grand stair ascending the slope from what is now a quiet residential area.

The building is sited centrally with its entrance facing to the south; the overlook terrace and grand stair provide a view of the city and of the valley and mountains to the north.

The Building

The building is a central pavilion with flanking wings; its overall dimensions are 85'-4" by 241'-8". There is a projecting bay in the north wall of each wing, providing access to a stairwell; east and west elevations have each a projecting central bay, which is gabled. The building consists of a basement, first floor and second floor.

The architect, who had lived in Baker for several years, selected a modern adaptation of Italian Renaissance palatial arachitecture as the style most appropriate to eastern Oregon; the dry climate of the region was, he felt, similar to that of northern Italy. The concept of a Renaissance palace on a hill, embodying the grand stair, is one of Benne's most satisfying designs and is particularly pleasing in its utilization of the site provided.

The building is constructed of reinforced concrete, finished in stucco. Roof areas visible from the ground are hipped and finished in variegated red terra cotta tile; areas not visible are composition. Part of the exterior detailing was cast in place, but the majority of these decorations (e.g., surrounds, consoles, balconies, escucheons, pediments and entrance details are executed in cast stone. The entrance steps are granite. There have been no major structural changes and no additions.

Visible External Changes

South Elevations: Second floor windows in the central pavilion were filled in and finished with stucco in 1967, when the auditorium was remodeled. This alteration has resulted in a blind arcade matching that on the north wall. The two balconies are in need of restoration (replacement of rails and balusters): otherwise the entire exterior of the building is in an excellent state of preservation.

North elevation: Four windows (central pavilion, second floor) were filled in when the auditorium was remodeled. The blind arcade between them was designed as such. The grand stair is currently undergoing restoration.

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

Administration Building, Eastern Oregon State College

East and west elevations: No changes.

Original Internal Spatial Organization and Subsequent Alterations

Major alterations are described in detail below. Spaces noted as being subdivided for office suites have not been subject to major alteration or remodeling, as the partitions and other changes are essentially temporary in nature. Many of the larger rooms, originally designed with a single entrance, were provided with two points of access at the time of construction.

Basement (See Plan).

There have been no major alterations to this area. Several of the spaces have been subdivided to provide studio and office areas; others are used for storage.

First Floor (See plan and sectional drawing)

Reference is made to numbered spaces on the original plan. Space 101 (entry): No changes. Space 102 (Entrance Hall): Display cases added on either side of the inner doors. No other changes. Space 103 (center hall): Recess on north wall replaced by French doors providing access to Space 117. It is believed this change was made at the time of construction. Spaces 109 through 111 were combined in a single room with the same configuration as space 123 and the library was located in it. It is believed that this change was made at the time of construction. Spaces 116 and 118 were provided with doors giving access to the hall (space 133), also at the time of construction. No changes have been made in the stairwells (Spaces 112 and 122), the women's lounge (Space 107), or the restrooms (Spaces 115 and 120). The other spaces have been subdivided to provide office areas.

Second Floor (See plans showing original configuration and auditorium remodel).

The auditorium was remodeled in order to transform an assembly hall into a modern theater. The remodeling occurred in two phases. In the first phase (1952) the floor was raked and permanent seating provided; in the second phase (1967) the entire interior was revised to provide improved stage and backstage areas, lighting and acoustics. During this phase of remodeling all windows were filled in. This is the only major alteration in the building. Two spaces on the second floor have been subdivided to provide office areas. The window alterations are not irreversible.

Original Interior Finish and Subsequent Alterations

All ceilings and walls are plaster; in the more formal areas ceilings are coved and provided with cornices. That in the central hall is groined. Floors in the entry and part of the entrance hall are tiled and the tiled areas are surmounted by a green marble base. The entry, entrance hall and central hall are panelled in Honduras mahogany. Notable features include a carved mahogany tympanum above the French doors in the central hall, and the original decorative lighting fixtures in central hall and entry. Handrails in the stairwells are mahogany. With the exceptions noted here, all original woodwrok in the building is vertical grain fir, originally varnished and later painted.

Doors and trim in public areas have not been replaced and nearly all retain their original brasses. Exterior doors have been refitted with locksets that are not architecturally correct; however, original or reporduction brasses could be adapted to the exterior surfaces without difficulty.

8. Significance

Period	Areas of Significance—Check and justify below				
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion
___ 1400–1499	___ archeology-historic	___ conservation	___ law	___ science
___ 1500–1599	___ agriculture	___ economics	___ literature	___ sculpture
___ 1600–1699	X architecture	X education	___ military	___ social/ humanitarian
___ 1700–1799	___ art	___ engineering	___ music	___ theater
___ 1800–1899	___ commerce	___ exploration/settlement	___ philosophy	___ transportation
X 1900–	___ communications	___ industry	___ politics/government	___ other (specify)
		___ invention		

Specific dates 1929 **Builder/Architect** John V. Bennes

Statement of Significance (in one paragraph)

Eastern Oregon State College is the only four-year institution of higher education within that part of Oregon which lies east of the Cascade Range. The geographic area its serves comprises most of the Second Congressional District and totals nearly 70,000 square miles. Founded in 1929 as Eastern Oregon State Normal School in order to provide an essential service to this large region, it has since developed into a multi-purpose institution whose mission is to provide an increasingly wide range of regional services. Its educational, cultural and social influence upon eastern Oregon has been of significant benefit to this region and to the state.

Historical Background of Site and Institution

Daniel Chaplin was one of the earliest settlers in the Grande Ronde Valley, moving to this area from Dayton, Oregon in 1861 or 1862. At that time he staked a claim for 160 acres on land which later became the city of La Grande. Chaplin was a public spirited citizen and in 1864 the site under discussion was made available by him as a public burying ground. It served as La Grande's only cemetary until 1878.

On May 28, 1870 Daniel Chaplin sold a portion of his holdings, including the site, to James R. Coggan; and the latter sold it to George Coggan May 22, 1871. These earlier transactions were fully legalized when George Coggan paid the State of Oregon $400.00 for sale of school lands and received a deed from that entity May 25, 1872.

George Coggan was killed by Indians July 12, 1878, at a point on the Old Oregon Trail now known as Deadman's Pass. His wife Annie Did not inherit his property; it passed instead to Emma L. Coggan, his daughter by a previous marriage. A portion including the site was sold to J.F. Phy December 8, 1885, but the legality of this transaction was disputed by Thomas R. and Ira Irwin, heirs of Emma L. Coggan. When the property was sold to George O' Connor April 5, 1902, they were named as parties of the first part.

O'Connor platted and developed a major portion of his land as O'Connor's Addition to the city of La Grande, calling it Connordale. The venture met with serious financial reverses, and the property was placed in a trusteeship January 12, 1914, with C.C. Pennington named as administrator of the trust. A suit was also brought by Amanda C. Moore against George and Lydia O'Connor, the National Bank of La Grande, and S. McAnish, in the amount of $26,171.79 plus interest. On January 4, 1921, the Circuit Court made a judgement in favor of the plaintiff. Moore obtained her deed to the property February 19, 1921.

Eastern Oregon State Normal School was approved by the people of Oregon at the general election in 1926. The Normal School Baord of Regents visited eastern Oregon shortly thereafter and selected La Grande as the appropriate location for an institution of higher learning. The City Commissioners than made a survey of available property and discussed several possible sites with the regents when they again visited La Grande on April 30, 1927. The site formally selected was the old pioneer burying ground. As noted earlier, it had served as the community's only cemetery until 1878, when the I.O.O.F. Cemeterty (now grandview) was established. With development of other formal cemeteries (Masonic, now Hillcrest, in 1894 and Calvary in 1900) the old burying ground fell into disuse. Some of the graves were moved and by the early years of this century it served only as a potter's field. By

9. Major Bibliographical References

Johnson, Lee Carroll. A Brief History of Union County, Oregon. La Grande, Oregon, 1948.
Vaughan, Thomas and George McMath. A Century of Portland Architecture. Portland, Oregon Historical Society, 1967.

10. Geographical Data

UTM NOT VERIFIED

ACREAGE NOT VERIFIED

Acreage of nominated property 4.5

Quadrangle name La Grande SE Oregon

Quadrangle scale 1:24000

UMT References

	Zone	Easting	Northing
A	10	414635	5019040
B			
C			
D			
E			
F			
G			
H			

Verbal boundary description and justification

Beginning at the northwest corner of the southeast quarter of the northwest quarter of Section 8, Township 2 South, Range 38 East of the Willamette Meridian (i.e., the intersection of 8th Street and "L" Avenue, La Grande, Oregon); thence south 388 feet; (continued)

List all states and counties for properties overlapping state or county boundaries

state	code	county	code
state	code	county	code

11. Form Prepared By

name/title John W. Evans, Director of Libraries

organization Eastern Oregon State College date July 30, 1979

street & number 8th Street and K Avenue telephone 503-963-2171 Ext. 223

city or town La Grande state Oregon 97850

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

___ national ___X_ state ___ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the Heritage Conservation and Recreation Service.

State Historic Preservation Officer signature

title State Historic Preservation Office Designee date December 18, 1979

For HCRS use only

I hereby certify that this property is included in the National Register

W. Ray Luce date 2/27/80

Keeper of the National Register

Attest: Kristin T. O'Connell date 2/25/80

Chief of Registration

GPO 938 835

UNITED STATES DEPARTMENT OF THE INTERIOR
HERITAGE CONSERVATION AND RECREATION SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

Administration Building, Eastern Oregon State College

1927 it had been virtually abandoned.

Acting upon the regents' decision, the City of La Grande entered into formal negotiations with Moore, and purchased the old cemetery and adjoining land from her May 18, 1927. This property was deeded by the City to the Board of Regents of the Normal Schools of Oregon on August 5, 1927, and was formally presented to the Board at its regular quarterly meeting on October 20 by La Grande City Commission President A.T. Hill.

The site did not require extensive preparation. A number of graves were moved at the specific request of relatives; the surface was then leveled and eighteen inches of topsoil added to it. Bones recovered during excavation for the building were collected in a large box and later reinterred in a mass grave at Hillcrest Cemetery. A simple monument to the unknown pioneer dead was erected over them. The majority of those buried in the old cemetery still rest there undisturbed, beneath the surface of the mall and under portions of the building to which basement areas do no extend; but there is no visible reminder of their presence and few persons are now aware of it.

Eastern Oregon State College's first building, here nominated for inclusion in the National Register of Historic Places, is a major work by an important Oregon architect. It takes fullest advantage of siting and is particularly impressive in terms of sppropriate design, structural integrity, and attention to detail. It combines dignity with function and has required only one major alteration in order to maintain its usefulness. In addition, it is architecturally one of the most significant buildings of its period in very large region that it serves. The architect, John V. Bennes had designed a similar but not identical building for Southern Oregon Normal School (now Southern Oregon State College) in Ashland. It was erected in 1925. Currently named Churchill Hall, this earlier example of Bennes' work is not as impressively sited as the Eastern Oregon State College Administration Building in that its design concept does not embody a formal grand stair.

John V. Bennes (1867-1943), was born in Peru, Illinois; he received his education and early training in Illinois and lived in Chicago. He came to Oregon in 1900 and worked as an architect in Baker until he moved to Portland in 1906. His obituary states that he was the first architect to design a reinforced concrete building in Portland. He served for many years as architect for the Oregon State System of Higher Education. Bennes was an admirer of Frank Lloyd Wright, and the best examples of his residential designs are Prairie Style adaptations of the Italian Renaissance ville, one of the best known examples of this type is the A. H. Maebly House (1915) in Portland's Arlington Heights Section. He moved to Los Angeles shortly before his death and is buried at Hoopeston, Illinois.

UNITED STATES DEPARTMENT OF THE INTERIOR
HERITAGE CONSERVATION AND RECREATION SERVICE

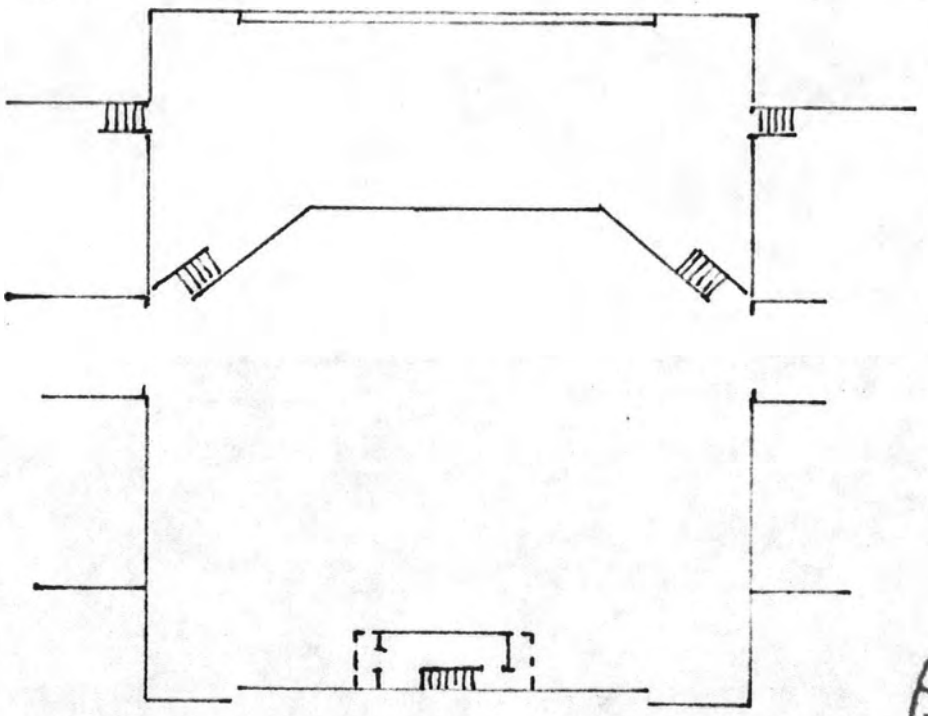
NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

Administration Building, Eastern Oregon State College

thence east 600 feet, more or less, to the campus boundary on center line of Hill Avenue as platted; then northwesterly on center line of Hill Avenue as platted to "L" Avenue; thence west to the point of beginning.

ADMINISTRATION BUILDING
EASTERN OREGON STATE COLLEGE, LA GRANDE
SECOND FLOOR PLAN: AUDITORIUM REMODEL (AFTER KORMAN, 1966)

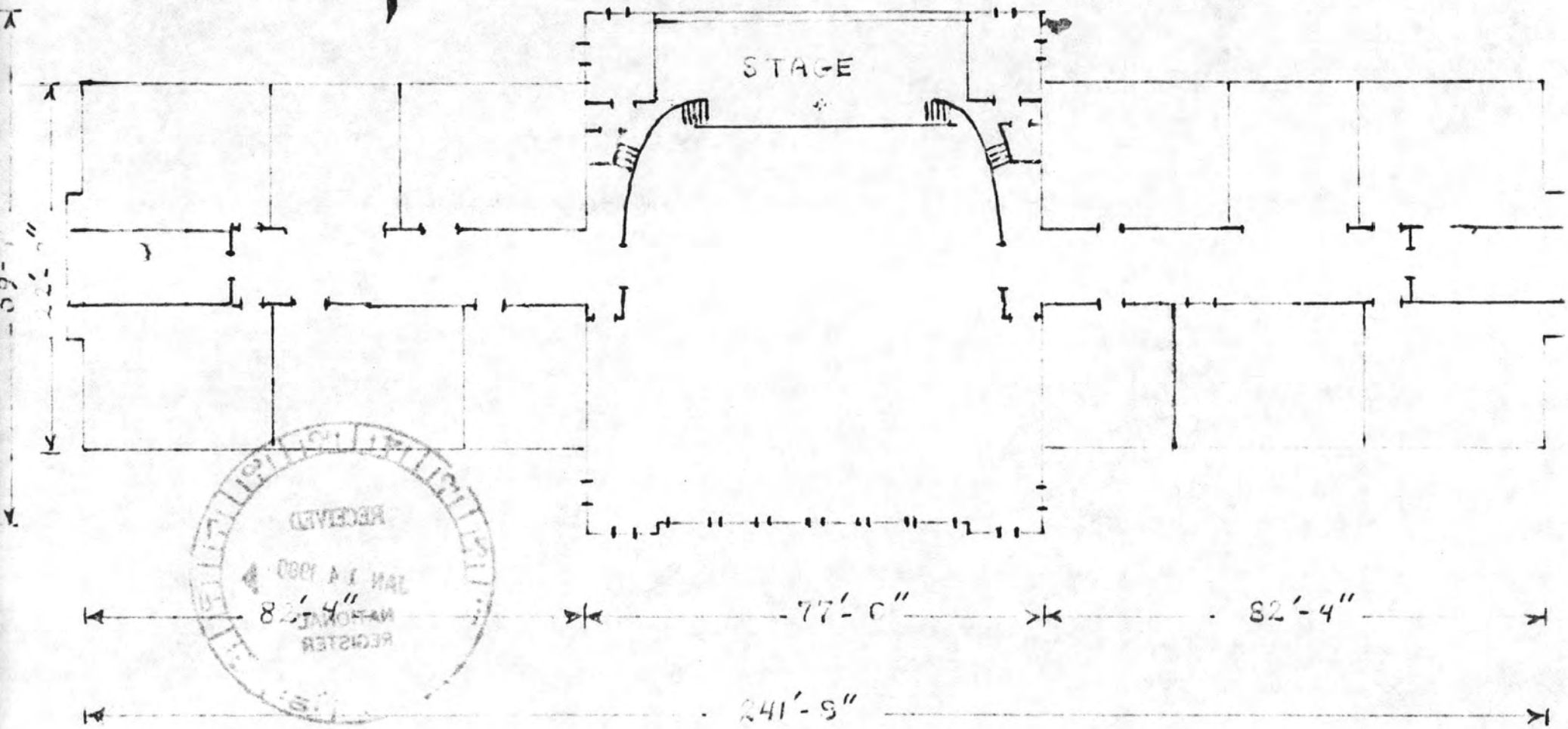
SCALE: 1" = 24'-0"



ADMINISTRATION BUILDING
EASTERN OREGON STATE COLLEGE, LA GRANDE
SECOND FLOOR PLAN AS DESIGNED (AFTER BENNES & HERZOG, 1927) (WINDOWS, WITH EXCEPTION OF AUDITORIUM, NOT SHOWN)

SCALE: 1" = 24'-0"

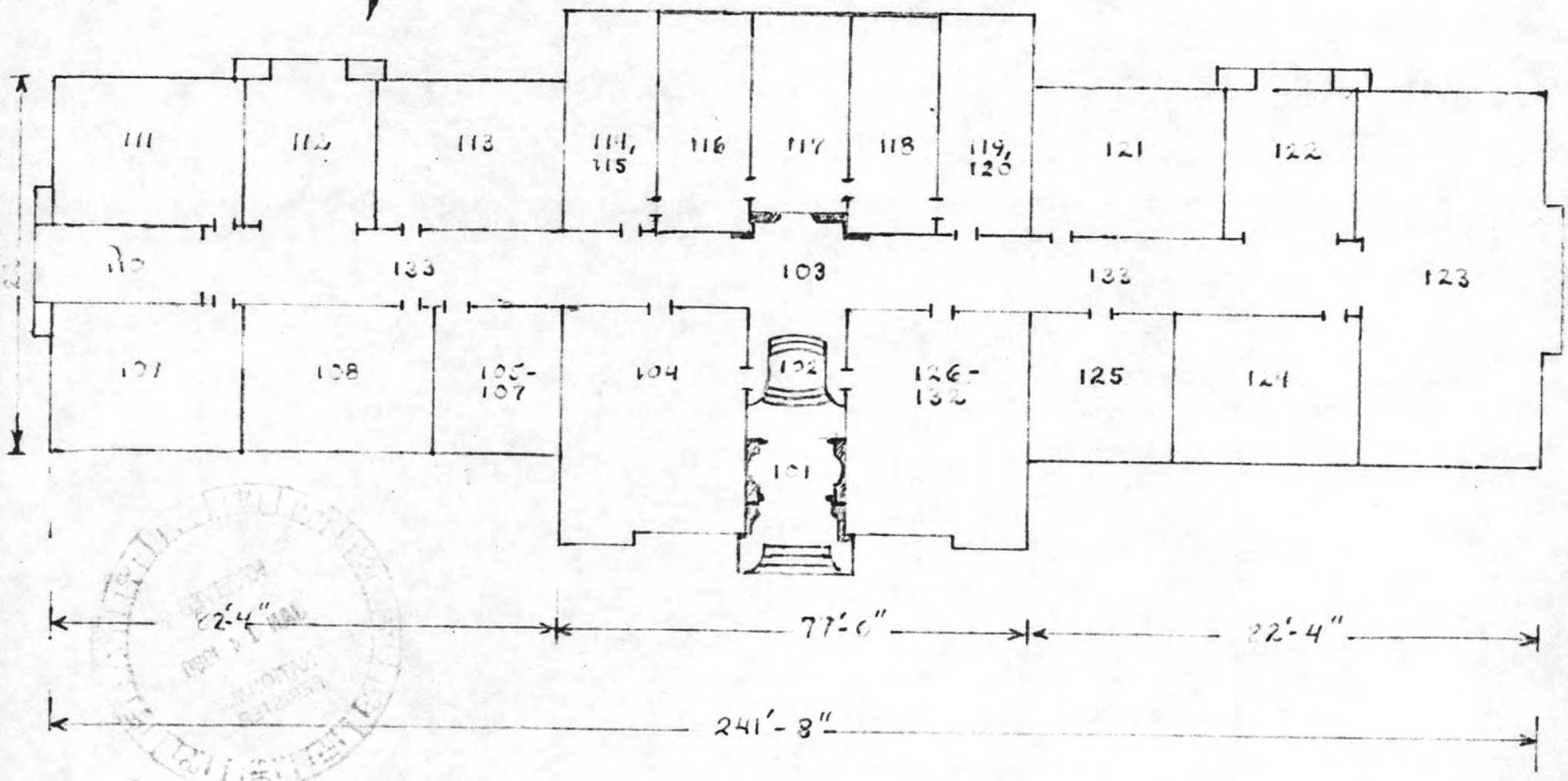
JOHN W. EVANS
1979



ADMINISTRATION BUILDING
EASTERN OREGON STATE COLLEGE, LA GRANDE
FIRST FLOOR PLAN AS DESIGNED (AFTER BENNES & HERZOG, 1927) (WINDOWS NOT SHOWN)

SCALE: 1" = 24'-0"

JOHN W. EVANS
1979

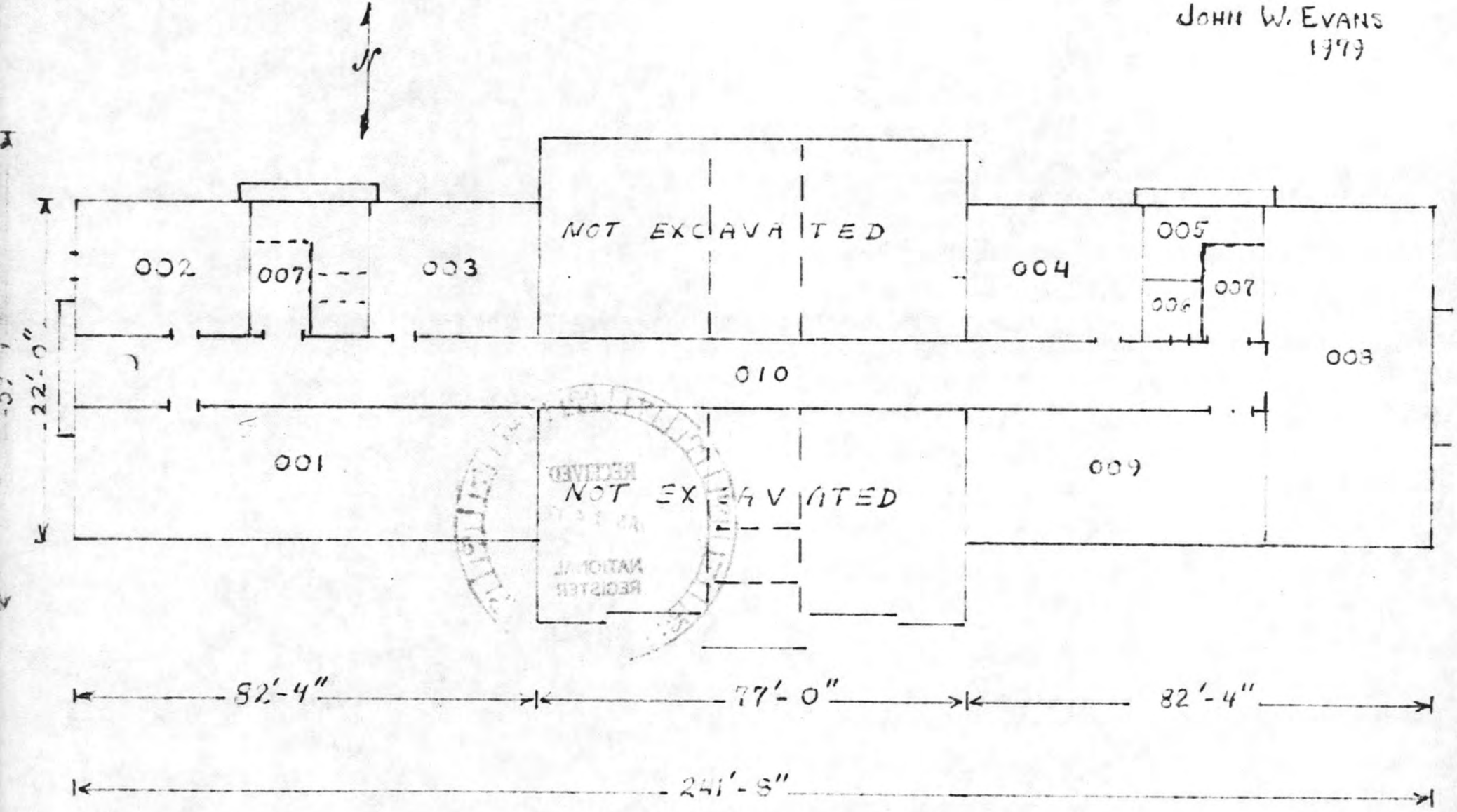


FEB 27 1980

ADMINISTRATION BUILDING
EASTERN OREGON STATE COLLEGE, LA GRANDE
FOUNDATON & BASEMENT PLAN AS DESIGNED (AFTER BENNES & HERZOG, 1927)
(WINDOWS NOT SHOWN)

SCALE: 1" = 24'-0"

JOHN W. EVANS
1979

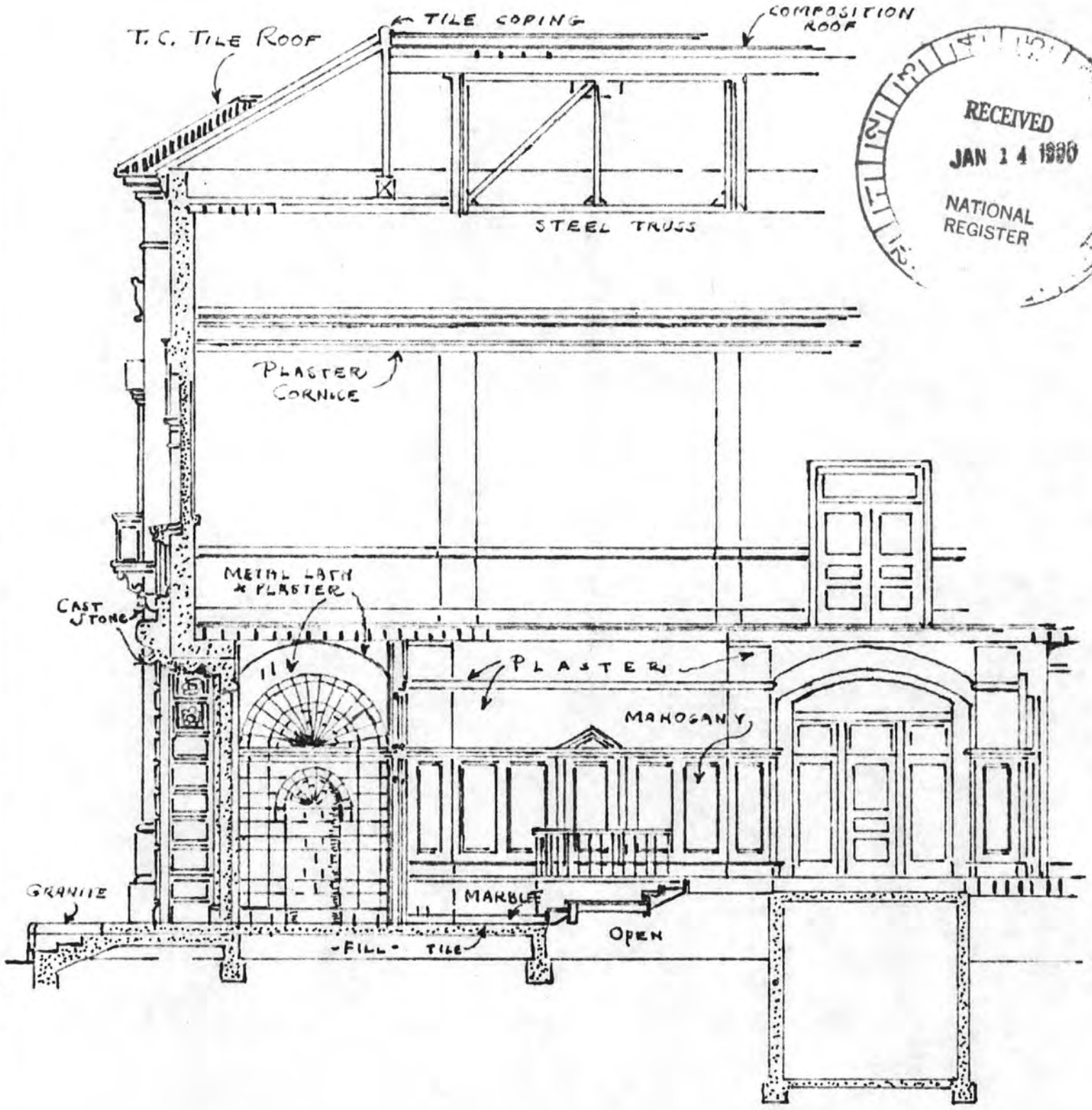


ADMINISTRATION BUILDING
EASTERN OREGON STATE COLLEGE, LA GRANDE

PORTION OF TRANSVERSE SECTION THROUGH ℄
(AFTER BENNES & HERZOG, 1927)

SCALE: 1/8" = 1'-0"

JOHN W. EVANS 1979

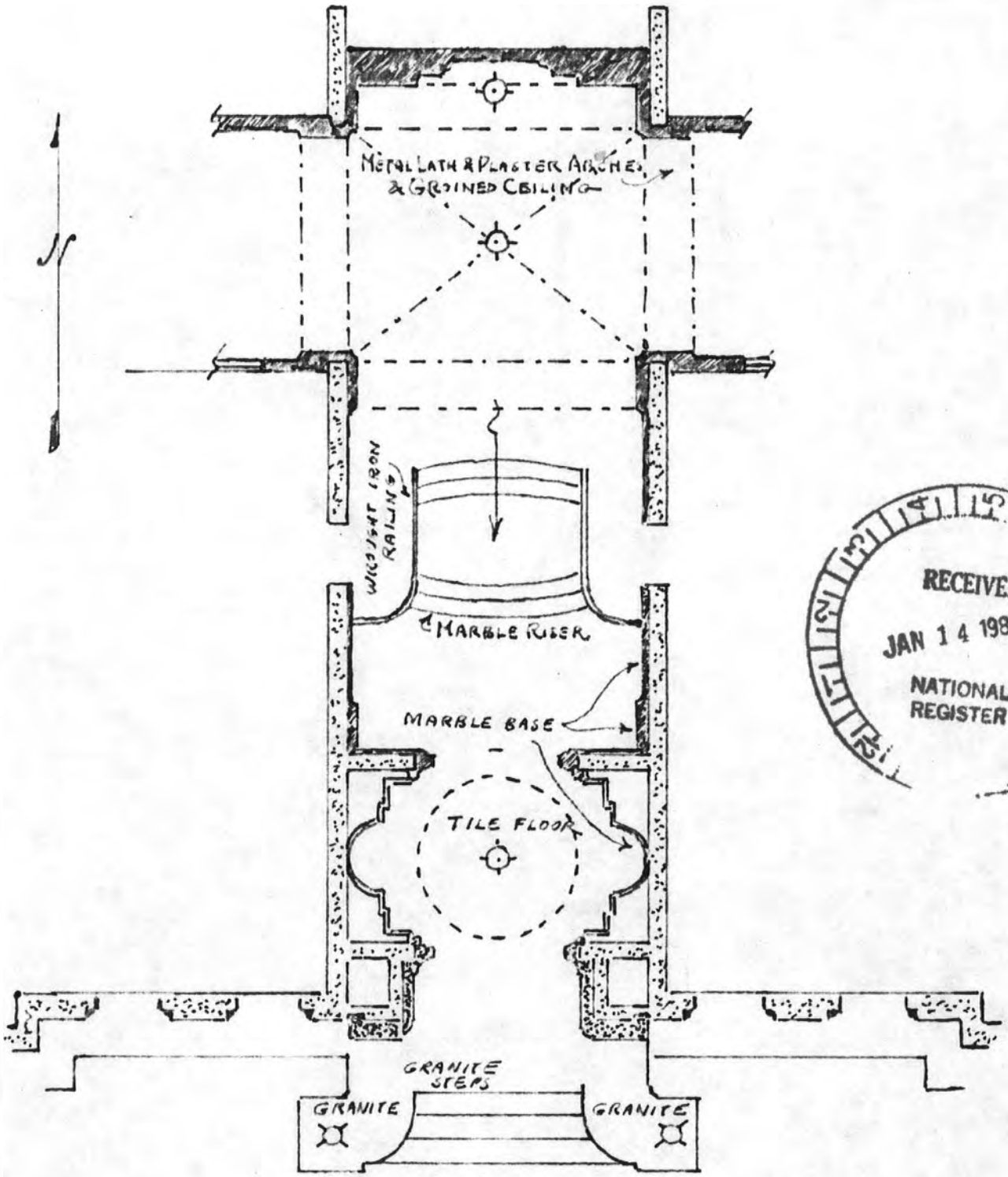


ADMINISTRATION BUILDING
EASTERN OREGON STATE COLLEGE, LA GRANDE

FIRST FLOOR PLAN: ENTRANCE AND HALL DETAIL
(AFTER BENNES & HERZOG, 1927

SCALE: 1/8" = 1'-0"

John W. Evans 1979



Property Administration Building

State Or-Union Working Number 1-14-80 131

80003384

TECHNICAL

Photos 7

Maps 1

CONTROL

HISTORIAN

ARCHITECTURAL HISTORIAN

Handsome Renaissance Revival academic building with unusual grand staircase taking advantage of hillside site. Significant as a major work of an architect of statewide reputation and for its role as a regional educational center. Unaltered.

Accept
O'Connell
1/28/80

ARCHEOLOGIST

OTHER

HAER

Inventory _____

Review _____

REVIEW UNIT CHIEF

BRANCH CHIEF

KEEPER

National Register Write-up _____ Send-back _____ Entered FEB 27 1980

Federal Register Entry 2-3-81 Re-submit _____

INT:2106-74

ADMINISTRATION BUILDING

Eastern Oregon State College, La Grande

South Elevation as Completed (view from southwest).

1929

Administration Building
Eastern Oregon State College
8th Street and K Avenue
La Grande, Union County, Oregon

Photographer Unknown, 1929
Eastern Oregon State College,
8th Street and K Avenue
La Grande, Oregon 97850

1 of 7
South Elevation as Completed


Eastern Oregon
Normal School
1929

ADMINISTRATION BUILDING

Eastern Oregon State College, La Grande

North Elevation as Completed.

1929

Administration Building
Eastern Oregon State College
8th Street and K Avenue
La Grande, Union County, Oregon

Photographer Unknown, 1929
Eastern Oregon State College
8th Street and K Avenue
La Grande, Oregon 97850

2 of 7
North Elevation as Completed


EASTERN OREGON STATE COLLEGE

ADMINISTRATION BUILDING

Eastern Oregon State College, La Grande

South Elevation (view from southeast across mall).

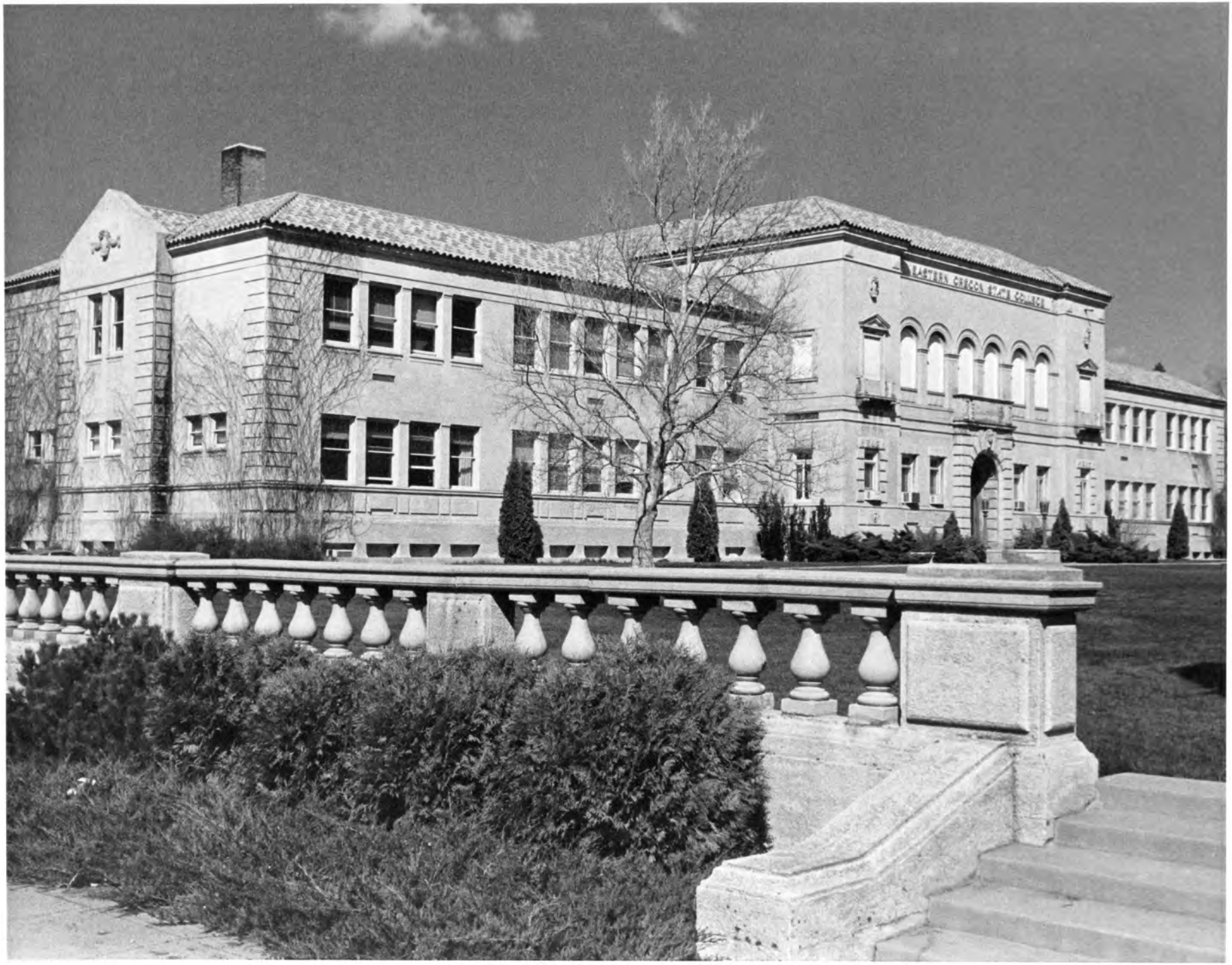
1976

Administration Building
Eastern Oregon State College
8th Street and K Avenue
La Grande, Union County, Oregon

Photographer Unknown, 1976
Eastern Oregon State College
8th Street and K Avenue
La Grande, Oregon 97850

3 of 7

South Elevation from Southeast


EASTERN OREGON STATE COLLEGE

ADMINISTRATION BUILDING

Eastern Oregon State College, La Grande

South Elevation (view from southwest).

1977

Administration Building
Eastern Oregon State College
8th Street and K Avenue
La Grande, Union County, Oregon

Photographer Unknown, 1977
Eastern Oregon State College
8th Street and K Avenue
La Grande, Oregon 97850

4 of 7

South Elevation from Southwest

ADMINISTRATION BUILDING

Eastern Oregon State College, La Grande

South Elevation (aerial view, showing building, mall, and landscape treatment of site).

1977

Administration Building
Eastern Oregon State College
8th Street and K Avenue
La Grande, Union County, Oregon

Photographer Unknown, 1977
Eastern Oregon State College
8th Street and K Avenue
La Grande, Oregon 97850

5 of 7

Aerial view of site

ADMINISTRATION BUILDING

Eastern Oregon State College, La Grande

North Elevation (aerial view, showing building, design of roof and grand stair, and landscape treatment of site).

1977

Administration Building
Eastern Oregon State College
8th Street and K Avenue
La Grande, Union County, Oregon

Photographer Unknown, 1977
Eastern Oregon State College
8th street and K Avenue
La Grande, Oregon 97850

6 of 7

Aerial view of north elevation and Grand Stair

ADMINISTRATION BUILDING

Eastern Oregon State College, La Grande

Grand Stair (detail).

1978

Administration Building
Eastern Oregon State College
8th Street and K Avenue
La Grande, Union County, OR

Photographer Unknown, 1978
Eastern Oregon State College
8th Street and K Avenue
La Grande, Oregon 97850

7 of 7

Detail of Grand Stair

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LA GRANDE SE QUADRANGLE
OREGON—UNION CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1957 and planetable surveys 1963

Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks,
zone 11, shown in blue

Red tint indicates area in which only landmark buildings are shown

Fine red dashed lines indicate selected fence lines

UTM GRID AND 1963 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION
Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
Interstate Route — U.S. Route — State Route

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1965

FEB 27 1980

RECEIVED
JAN 14 1980
NATIONAL REGISTER

ADMINISTRATION BUILDING, EOSC
LA GRANDE SE, OREG.
N4515—W11800/7.5

1963

AMS 2374 I SE—SERIES V882

N E
10/5019040/414635

Eastern Oregon State College
La Grande, Oregon 97850, 503/963-2171

July 16, 1979

David Talbot
State Historic Preservation Officer
525 Trade Street, S. E.
Salem, Oregon 97310

Dear Mr. Talbot:

Eastern Oregon Normal School was established in 1929 in La Grande, Oregon. The Normal School was originally established in one building and the School has evolved to what is now the impressive campus of Eastern Oregon State College.

We believe it particularly fitting during this 50th Anniversary year to nominate the original building and its grand staircase to the National Register of Historic Places.

The nomination forms and supporting documentation are now in preparation and we expect to have them ready for your review on or before August 1, 1979.

We believe this is a most worthy nomination and would encourage you to take favorable action.

Sincerely,

Rodney A. Briggs
President

RAB:pk

City of La Grande

COUNCIL-MANAGER FORM OF GOVERNMENT SINCE 1913

IN THE GRANDE RONDE VALLEY - THE BLUE MOUNTAINS - NORTHEASTERN OREGON

(503) 963-7161 P. O. BOX 670

La Grande, Oregon 97850

November 15, 1979

David Talbot
State Historic Preservation Officer
525 Trade Street, S.E.
Salem, OR 97310

Dear Mr. Talbot:

When the people of Oregon approved an Eastern Oregon State Normal School in 1926, and La Grande was chosen as the appropriate location for that facility, the La Grande City Commissioners made a survey of available property. After a site was formally selected by the Normal School Board of Regents, the chosen property was purchased by the City of La Grande May 18, 1927. The City then deeded it to the Board of Regents on August 5 and it was formally presented to the Board by La Grande City Commission President A.T. Hill on October 20. The first building, now the Administration Building, was completed in 1929.

The City of La Grande is proud of this investment in its future. During the past fifty years we have seen Eastern Oregon State College grow from a two-year normal school to a multipurpose four-year institution of great educational, cultural, and economic value to this city and to all of eastern Oregon.

We are very pleased to support the nomination of the Eastern Oregon State College Administration Building to the National Register of Historic Places.

Sincerely,

Jim Petersen
La Grande City Councilman
107 Penn
La Grande, OR 97850

cc: Dr. Rodney Briggs, President
Eastern Oregon State College

John Evans, Librarian
Eastern Oregon State College

Robert Davidson, Mayor
City of La Grande

th

VICTOR ATIYEH
GOVERNOR

Department of Transportation
STATE HISTORIC PRESERVATION OFFICE
Parks and Recreation Division
525 TRADE STREET S.E., SALEM, OREGON 97310

In Reply Refer to
File No.:

December 31, 1979

Ms. Carol D. Shull
Acting Keeper
National Register of Historic Places
Heritage Conservation and Recreation Service
U.S. Department of the Interior
440 G Street NW
Washington, D.C. 20243

CERTIFIED MAIL

Dear Ms. Shull:

On the recommendation of the State Advisory Committee on Historic Preservation, I wish to nominate the thirty Oregon properties listed on the attached sheet.

The owners of these properties are aware of this action, and, because most of them are hoping to be eligible for special assessment status under Oregon law in calendar year 1980, they will greatly appreciate whatever means can be taken to expedite review of the nominations. In order for the State Historic Preservation Office to certify these properties for purposes of the Oregon Historic Property Tax Law of 1975, word of final action on the nominations should be received on or before March 15, 1980.

As always, we are grateful for the accommodation your staff of the Registration Branch gives nomination proponents in the state of Oregon at this time of year.

Sincerely,

David G. Talbot

David G. Talbot
State Historic Preservation Officer

DGT:EWP

Attachment

1. Administration Building, Eastern Oregon State College
   LaGrande, Union County
2. Lane (General Joseph) Tomb
   Roseburg, Douglas County
3. Rogue Elk Hotel
   Trail, Jackson County
4. Rock Point Hotel
   Gold Hill, Jackson County
5. Prospect Hotel
   Prospect, Jackson County
6. Campbell (Richard Posey) House
   Ashland, Jackson County
7. Coolidge (Orlando) House
   Ashland, Jackson County
8. Ahlstrom (Nils) House
   Ashland, Jackson County
9. Perozzi (Domingo) House
   Ashland, Jackson County
10. First National Bank (Old), Vaupel Store and Oregon Hotel
    Ashland, Jackson County
11. Harlow (Elmer) House
    Eugene, Lane County
12. First Congregational Church (Old)
    Eugene, Lane County
13. Albany Custom Mill
    Albany, Linn County
14. Straney and Moore Livery Stable
    Albany, Linn County
15. Chamberlain (George Earle) House
    Albany, Linn County
16. Dawson (Alfred) House
    Albany, Linn County
17. Riley-Cutler House
    Monmouth vicinity, Polk County
18. Geer (R. C.) Farmhouse
    Salem vicinity, Marion County
19. Zorn (Casper) Farmhouse
    Champoeg, Marion County
20. Latourette (Charles David) House
    Oregon City, Clackamas County
21. Hexter (Levi) House
    Portland, Multnomah County
22. Mock (John) House
    Portland, Multnomah County
23. Ladd Carriage House
    Portland, Multnomah County
24. Auditorium Building
    Portland, Multnomah County
25. United Carriage Company Building
    Portland, Multnomah County

26. Campbell Townhouses
    Portland, Multnomah County
27. Couch Family Investment Development
    Portland, Multnomah County
28. Buckler-Henry House (Grace Peck House)
    Portland, Multnomah County
29. Jefferson Substation
    Portland, Multnomah County
30. Dorchester House
    Lincoln City, Lincoln County

Patrick Call

Yo responde por favor

OREGON STATE SYSTEM OF HIGHER EDUCATION
OFFICE OF FACILITIES PLANNING
P.O. Box 3175
EUGENE, OREGON 97403

OFFICE OF THE VICE CHANCELLOR

TELEPHONE
(503) 686-4159

January 29, 1980

Ms. Carol D. Shull
Heritage Conservation and
Recreation Service
Department of the Interior
Pension Building
440 G Street, N.W.
Washington, D. C. 20243

Subject: Oregon State System of Higher Education
University of Oregon
Eugene, Oregon 97403

Administration Building

Dear Ms. Shull:

We received notice on January 28, 1980 that the above property would soon be considered for listing in the National Register. We assume this is the Administration Building at Eastern Oregon State College in LaGrande, Oregon. This building is owned by Oregon State System of Higher Education whose address is P. O. Box 3175 (rather than University of Oregon), Eugene, Oregon 97403. We would appreciate being notified if this assumption is incorrect.

Our office supports the nomination of the Administration Building at Eastern Oregon State College for listing in the National Register of Historic Places.

Sincerely,

Arthur E. Mancl

Arthur E. Mancl, AIA, AICP
Director of Campus and Building Planning

AEM:vlf
Enclosure

cc w/encl: Dr. R. A. Briggs
Mr. J. W. Evans (with copy of mailing from Heritage Conservation and Recreation Service)

ENTRIES IN THE NATIONAL REGISTER

STATE OREGON

Date Entered FEB 27 1980

Name	Location
Administration Building	La Grande Union County
Latourette, Charles David, House	Oregon City Clackamas County

Also Notified

Honorable Bob Packwood

Honorable Mark O. Hatfield
Honorable Al Ullman

State Historic Preservation Officer
Mr. David G. Talbot
State Parks Superintendent
525 Trade Street SE
Salem, Oregon 97310

NR Byers/bjr 2/28/80

For further information, please call the National Register at (202)343-6401.

APPLICATION FOR LAND USE REVIEW

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT
Planning Division
1000 Adams Avenue, P.O. Box 670
La Grande, OR 97850
(541) 962-1307
Fax (541) 963-3333

CITY of LA GRANDE
THE HUB OF NORTHEASTERN OREGON

LAND USE APPLICATIONS

- ☐ Annexation Petition
- ☐ Appeal of Planning Division Decision
- ☐ Appeal of Planning Commission Decision
- ☐ Appeal of Landmarks Commission Decision
- ☐ Comprehensive Plan Document or Map Amendment
- ☐ Conditional Use Permit
- ☐ Duplex Division
- ☐ Fence Height Waiver
- ☐ Floodplain Development Permit *(Separate Applic. Required)*
- ☐ Geologic Hazard Site Plan
- ☒ Historical Landmarks Review
- ☐ Home Occupation Permit
- ☐
- ☐ Land Development Code Amendment
- ☐ Land Use Approval Time Extension
- ☐ Livestock Permit
- ☐ Lot Line Adjustment
- ☐ Major Land Partition
- ☐ Minor Land Partition
- ☐ Planned Unit Development
- ☐ Preliminary Land Use Review
- ☐ Public Right-of-Way Encroachment
- ☐ Public Right-of-Way Dedication
- ☐ Public ROW Vacation *(Separate Applic. Required)*
- ☐ Site Plan Review
- ☐ Segregation of Tax Lot
- ☐ Sign Permit
- ☐ Subdivision
- ☐ Temporary Use Permit
- ☐ Variance – Administrative
- ☐ Variance – Commission
- ☐ Wetland Development Permit
- ☐ Zoning Approval
- ☐ Zone Change Designation
- ☐

OWNER/APPLICANT INFORMATION

Applicant/Agent:	Anna Wilcox	Land Owner:	Sarah Hollenbeck
Mailing Address:	419 SW 11th Ave	Mailing Address:	1 University Boulevard
City/State/Zip:	Portland, OR 97205	City/State/Zip:	La Grande, OR 97850
Telephone:	(503) 228-7571	Telephone:	(541) 962-3181
Fax:		Fax:	
Email:	annaw@waterleaf.com	Email:	shollenbeck@eou.edu

PROJECT INFORMATION

Site Address: 1 University Boulevard

Legal Desc.: T 03 S, R 38 E, Section 08, Tax Lot 100

Project Value: _____ *(Based on contractors bid estimate.)*

Description: Full roof replacement, chimney removal, inserting windows in the north elevation concrete archways, replacing all windows, updates to first floor entries and heating elements, reconfiguring the second floor, refinishing the north and south elevation primary entrance doors, repairing Juliet balconies, and limited below-grade work for landscaping.

APPLICANT/OWNER CERTIFICATION

The applicant/owner understands and agrees that:

- The applicant/owner assumes all legal and financial responsibilities for establishing and clearing marking the location of all necessary property lines as determined necessary by the City for the proposed development;
- Building setbacks shall be measured from an established property line, not from the street, curb, sidewalk, or other improvement that is not based on a recorded survey;
- Any approvals associated with this request may be revoked if found in conflict with information represented in this application;
- The approval of this request does not grant any right or privilege to erect any structure or use any premises described for any purposes or in any manner prohibited by City of La Grande ordinances, codes or regulations;
- The applicant hereby authorizes City officials of the City of La Grande to enter the property and inspect activity in conjunction with the proposed development project.
- **ASBESTOS:** If the project includes demolition, Oregon law may require an asbestos inspection by an accredited inspector. The applicant/owner hereby understands and agrees to have an asbestos inspection performed, if required by law, and to have a copy of the inspection report available on-site for the duration of the project.

Applicant Signature: _____ **Owner Signature:** _____

Submit Clear Form

APPLICATION FOR LAND USE REVIEW

PAGE 2

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT
Planning Division
1000 Adams Avenue, P.O. Box 670
La Grande, OR 97850
(541) 962-1307
Fax (541) 963-3333

CITY of LA GRANDE
THE HUB OF NORTHEASTERN OREGON

STAFF USE ONLY FOR ZONING APPROVAL

Project Elements:
☐ Demolition ☐ New Structure
☐ Addition to Structure ☐ Alterations/Repairs

Demolition Defined: "Any wrecking that that involves the removal of any load-supporting structural member or intentional burning."

Dwelling Standards: 1 2 3 4 5 6 7 8 9 10 11 12 N/A
Required for MH/SF/Duplex & Apartments [Section 3.2.003]

Access. Bldg. Standards Met: ☐ Yes ☐ No ☐ N/A *[Article 5.9]*

☐ Setbacks Met: ☐ Yes ☐ No *[Article 5.3]*

*Front:*_____ *Left:*_____ *Right:*_____ *Rear:*_____

Livestock setbacks:_____

Floodplain: ☐ Yes ☐ No Zone:_____ BFE:_____
If yes, an Elevation Certificate may be required
If yes, a Floodplain Development Permit may be required. [Article 3.12]

Geologic Hazard Zone: ☐ Yes ☐ No
If yes, a Geologic Hazard Waiver is required. [Article 3.4]

Riparian Zone/Wetlands: ☐ Yes ☐ No
If yes, a wetland delineation and DSL Permit may be required. [Articles 3.9 and 3.19]

Fire Protect. Agrmt. Req.: ☐ Yes ☐ No *[Article 3.2]*

Parks & Recreation SDC: ☐ Yes ☐ No *[Article 7.1]*

ROW Improvement Req.: ☐ Yes ☐ No *[Article 6.3]*

LID Agreement Req.: ☐ Yes ☐ No *[Article 6.3]*

Zone: _____

File Number: _____

Application Fee: _____

Receipt Number: _____

Date Approved:

Date Submitted:

COMMENTS:_____

_____

_____

_____

_____

Land Use Application Fee Schedule

Annexation Petition	$1000		Minor Land Partition	$250 + $5/lot
Appeal of Planning Division Decision	$75		Planned Unit Development	$500 + $5/lot + Actual Costs for Advertising and Public Notice
Appeal of Planning Commission/Landmarks Commission Decision	$150		Public Right-of-Way Encroachment	$50 + Document Recording Fees
Comprehensive Plan Designation Change	$300 + Actual Costs for Advertising and Public Notice		Public Right-of-Way Dedication	$0
Comprehensive Plan Document Amendment	Actual Costs		Public Right-of-Way Vacation	Actual Costs
Conditional Use Permit	$375		Preliminary Land Use Review (Pre-Application Meeting)	$0
Duplex Division	$250 + $5/lot		Segregation of Tax Lot	$25
Fence Height Waiver	$25		Sign Permit	$75
Floodplain Development Permit	$75		Site Plan Review – New/Expansion	$75 (Projects $0-$50k) $150 (Projects $50k-$100k) (+ $0.50/$1000 over $100k)
Geologic Hazard Site Plans	$75		Subdivision	$500 + $5/lot + Actual Costs for Advertising and Public Notice
Historical Landmarks Review	$75		Temporary Use Permit	$125
Home Occupation Permit	$75		Variance Permit (Administrative)	$175
Land Development Code Amendment	Actual Cost		Variance Permit (Planning Commission)	$450
Land Use Approval Time Extension	$25		Wetland Plan Review	$75
Lot Line Adjustment	$150		Zone Change/LDC Amendment	$300 + Actual Costs for Advertising and Public Notice
Livestock Permit	$25			
Major Land Partition	$500 + $5/lot		Zoning Approval	$25.00

**Applications based on actual costs require a deposit to cover the estimated fees. If there is a shortage of funds discovered during the review process, an additional deposit may be required to be paid. Any surplus or deficit of fees paid will be refunded or billed to the applicant.*
**Application fee for multiple planning actions is equal to the greatest single fee, not the sum of all fees.*
**Application fee may be increased to include third party engineering and/or consulting fees when required.*
S:\Community Development\PLANNING\FORMS\APPLICATIONS\Version 2021\Land Use Application.docx

APPLICATION FOR HISTORIC LANDMARKS REVIEW

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT
Planning Division
1000 Adams Avenue, P.O. Box 670
La Grande, OR 97850
(541) 962-1307
Fax (541) 963-3333

CITY of LA GRANDE
THE HUB OF NORTHEASTERN OREGON

OWNER/APPLICANT INFORMATION

Applicant/Agent:	Anna Wilcox	Land Owner:	Sarah Hollenbeck
Mailing Address:	419 SW 11th Ave	Mailing Address:	1 University Boulevard
City/State/Zip:	Portland, OR 97205	City/State/Zip:	La Grande, OR 97850
Telephone:	(503) 228-7571	Telephone:	(541) 962-3181
Email:	annaw@waterleaf.com	Email:	shollenbeck@eou.edu

PROJECT INFORAMTION

Site Address: 1 University Boulevard

National Register Site Number: 80003384

Legal Desc.: T 03 S, R 38 E, Section 08, Tax Lot 100

Historic Building Name: Administration Building

Description: Full roof replacement, chimney removal, inserting windows in the north elevation concrete archways, replacing all windows, updates to first floor entries and heating elements, reconfiguring the second floor, refinishing the north and south elevation primary entrance doors, repairing Juliet balconies, and limited below-grade work for landscaping.

Property Classification/Applicable Standards from below Standards A & C

	If the site or property is: National Register Historic Contributing Historic Non-Contributing	If the site or property is: Non-contributing Vacant
If the proposed will be visible from the street:	**USE STANDARDS A AND C**	**USE STANDARDS B AND C**
If the work proposed is only visible from the alley:	**USE STANDARDS A AND D**	**USE STANDARDS B AND D**

I am interested in applying for (check all that apply):

___Federal Tax Incentives
___State Tax Incentives
___State SHPO Grants
___Urban Renewal Grant
___Other Grants

Notice: For projects seeking to participate in State or Federal tax incentive programs, additional design standards and/or development requirements may apply. Please contact the Oregon State Historic Preservation Office for more information and to discuss your project at: Joy Sears, (971) 345-7219, joy.sears@oprd.oregon.gov

APPLICANT SUBMTITAL CHECKLIST

SHALL SUMBIT

1. Project Narrative
    - Describe your project.
    - If an existing building:
        - Describe proposed modifications to the exterior of the building
        - What exterior elements are changing
        - What elements are not changing

PAGE 2

2. Photos of existing conditions of building and project elements:
    - Photo of full façade (existing conditions)
    - Close-up of elements that are to be modified (bright and clear)
    - Elements that may be degraded and to be removed/demolished, photos clearly showing the damage and deterioration justifying removal.
    - Consider adding text/descriptions to describe what is in the photos, arrows to point at elements.
3. Historic photos of building (pre-1946)
    - Bring what you have
    - Staff has limited photos as a source
    - Public Library, EOU, University of Oregon (see page 41)
4. Project Documentation/Specifics (consult with your contractor or designer on the following)
    - Plan must include sufficient construction details to illustrate the following:
        - Window, door, fixture, other - manufacturer spec sheet
        - How will product be installed (e.g. widening door or window opening?)
    - Describe the proposed materials to be used in the project (brick, concrete, wood, metal, etc.)
        - Bring sample if available, especially if uncommon or custom material.
    - New construction, storefront restoration/replacement, other significant façade changes/replacement: provide dimensioned floorplan and elevation views of all exterior facades.
    - Provide close-up cross-section details, with dimensions or measurements, for each project area that shows the proposed improvement, construction method to be used, architectural design details, and proposed materials.

APPLICANT/OWNER CERTIFICATION

The applicant/owner understands and agrees that:

- The applicant/owner assumes all legal and financial responsibilities for establishing and clearing marking the location of all necessary property lines as determined necessary by the City for the proposed development;
- Building setbacks shall be measured from an established property line, not from the street, curb, sidewalk, or other improvement that is not based on a recorded survey;
- Any approvals associated with this request may be revoked if found in conflict with information represented in this application;
- The approval of this request does not grant any right or privilege to erect, alter or demolish any structure or use any premises described for any purposes or in any manner prohibited by City of La Grande ordinances, codes or regulations;
- The applicant hereby authorizes City officials of the City of La Grande to enter the property and inspect activity in conjunction with the proposed development project.
- **ASBESTOS:** If the project includes demolition, Oregon law may require an asbestos inspection by an accredited inspector. The applicant/owner hereby understands and agrees to have an asbestos inspection performed, if required by law, and to have a copy of the inspection report available on-site for the duration of the project.

Burden of Proof: It is the responsibility of the applicant to provide sufficient information for the Commission to understand the project and to determine compliance with the historic preservation standards.

Applicant Signature: _____ **Owner Signature:** _____

1. Project Narrative

Building History and Description

The Grand Staircase and Inlow Hall at Eastern Oregon University (EOU) were listed on the National Register of Historic Places on February 27, 1980. The Staircase and Inlow Hall were both designed in the Italian Renaissance Revival style. Inlow Hall was designed by the firm of Bennes & Herzog Architects. Though often credited to Bennes, an original rendering suggests that Harry Albert Herzog was behind the design of the Grand Staircase and Inlow Hall. Herzog was born in Texas in 1893. As a child, he moved with his family to Chicago and Seattle before moving to Portland in 1905. Herzog joined the firm of Bennes & Hendricks as a draftsman after finishing high school in 1912. He attended the University of Pennsylvania and earned a degree in architecture. His early career included working for the Northwest Engineering Company during World War I and in architecture offices in New York and Philadelphia. Herzog returned to Portland in 1922 to work for John V. Bennes. Herzog became a partner at Bennes & Herzog in 1926. The two remained partners until Herzog opened a solo practice in 1931. Herzog briefly created a partnership with Holman J Barnes from 1948 to 1952 before returning to a solo practice.

The historic Inlow Hall on the campus of Eastern Oregon University was built in 1929 as the Eastern Oregon State Normal School. Housing all functions of a teacher training institution until an additional building was constructed on the campus in 1935, this Italian Renaissance Revival building is an example of palatial architecture and is adjacent to the historic Grand Staircase. Inlow Hall was originally built to house the campus auditorium. The north elevation was the backwall of the theater, resulting in no requirement for window openings. Changes to the building include a 1980 remodeling for administrative use and the auditorium space was subdivided to create office space. During the 1970s through the 1990s, the windows were removed from the central pavilion's south elevation. This project aims to complete a full rehabilitation of Inlow Hall in order to recreate the historic appearance of the building while using updated and modern materials. Work is to be completed on the chimney, roof, windows, Juliet balconies, primary entry doors, and as-needed repairs to paint and elastomeric coatings.

Scope of Work

The proposed scope of work will meet the Secretary of the Interior's Standards for Rehabilitation. An Inadvertent Discovery Plan will be in place in the event archeological items are uncovered.

The scope of work will include a full roof replacement, chimney removal, inserting windows in the north elevation concrete archways, replacing all windows, updates to first floor entries and heating elements, reconfiguring the second floor, refinishing the north and south elevation primary entrance doors, repairing Juliet balconies, and limited below-grade work for landscaping.

The clay tile roof of Inlow Hall is past its useful life. The roofing tile will be replaced in-kind with the same product produced by the same manufacturer and match the historic in design, color, texture, and material. The project team has partnered with a company that will take the historic clay tile for salvaging and repurposing. The flat, composite, sections of roof that are not visible from ground level will also be replaced in-kind.

The chimney proposed for removal has been modified since initial construction and is therefore not a character defining feature of Inlow Hall. In the 1940s the chimney was enlarged and then shortened in circa 1990. The chimney has not been used for a couple of decades, and therefore capped. Additionally, the structure is not seismically braced. The chimney is to be removed and new roof tile will be added in its place.

The proposed windows for the central pavilion's north elevation will be located in the existing recesses on the second floor. The windows will be similar to those on the second floor of the south elevation. Unlike the south elevation, the proposed windows at the north elevation will be larger in order to accommodate the offset floorplates from the auditorium infill. The windows will be contemporary enough to not create a false sense of history while remaining compatible with the building's existing features. Although the windows on the second floor of the north elevation will be a new modification, necessary internal changes to the second floor require the addition of windows in the archways. If necessary in the future, the work is reversible.

A majority of the window sashes have been replaced with an inaccurate and smaller replacement that have been retrofitted to the existing wood frames, there are no longer counterweights in the double hung units, vinyl valances have been added since original construction, the addition of window air conditioning units with exterior support brackets are affecting the energy efficiency of the windows and building, and windows are either showing signs of deterioration or are not original. Original windows that have been replaced include on the second floor of the central pavilion and the now louvered windows on the basement level, resulting in at least sixteen replaced windows on the central pavilion section and basement level. The current windows could be a source of water and air intrusion affecting the energy efficiency of the building. These reasons have prompted a complete replacement of all windows with aluminum that will provide a more cohesive appearance, longer lifespan, and less maintenance upkeep. The new aluminum windows will match in design, color, style and profile with the historic windows. On the west elevation, a non-historic entrance door and exterior access stair into the basement mechanical room will be removed in order to facilitate the installation of new mechanical equipment that will replace the outdated equipment. Windows that match the original configuration of the openings as well as the remaining east and west elevation basement windows will be added. With the removal of the stairwell, a window well that matches the other basement level window wells throughout the building will be constructed. By removing this non-historic access door and stairwell, the west elevation of Inlow Hall will reflect how it was originally built. Research was completed to determine the original paint color of the historic windows. The color of all updated windows will match that of the historic color.

Originally, Inlow Hall's cast stone matched in color to that of the Grand Staircase. Research was completed to determine what kind and how many layers of coatings were applied to the cast stone and how to best remove them from the building. Any cast stone repairs will match in color to that of the historic. Any concrete repairs will be painted to match the existing lighter elastomeric coating that is present on all exterior concrete surfaces. Any architectural details where the coatings may be removed

to present Inlow Hall as it was historically will show the rosy pink hue of the cast stone. The Juliet balconies on the second floor of the north and south elevations will be repaired with the above determinations in mind.

Inlow Hall will first be cleaned using low pressure hot water. Under consideration is the removal of the surface coating over the original cast stone. Mock-up paint removal methods using chemical strippers will be performed to determine the most effective method with no damage to either the building or the environment. If determined feasible, this method would be used on only cast stone elements to reveal the rosy pink hue of the original cast stone, matching that of the Grand Staircase.

On the first floor, the wood doors at the south and north entries will be retained and refinished. The heating elements in the lobby and stairwells will be replaced with an electric but complimentary system in order to not disturb existing finishes. Historic materials that will remain include the wood paneling, flooring, and decorative plasterwork located in the lobby and stairwells. The interior of the second floor of Inlow Hall lacks character defining features. The proposed scope of work for the second floor is limited to reconfiguring office spaces and updating finishes accordingly.

Last, there will be limited below-grade work related to landscaping directly adjacent to the building.

The project team will remain in contact with the Confederated Tribes of the Umatilla Indian Reservation throughout the project. With previous discoveries of human remains nearby and under Inlow Hall there may be a probability of inadvertent discovery of additional artifacts. A cemetery is believed to be located near Inlow Hall. At the time of Inlow Hall's construction the ground was significantly disturbed with no regard for potential archeological discoveries. Regardless, all work will be completed in accordance with an Inadvertent Discovery Plan and Archeological permit that will be submitted separately for this project.

2. Photos of Existing Conditions of Building and Project Elements

1. Inlow Hall south elevation, facing north. 04/12/2022.

2. Central pavilion, south elevation, facing north. 04/19/2022.

3. West elevation, facing east. 04/19/2022.

4. Northeast corner, facing southwest. 04/19/2022.

5. Western half of north elevation, facing southwest. 04/19/2022.

6. Example of primary entrance doors that will be refinished. 04/19/2022.

7. Inlow Hall south elevation, facing north. Notice damaged Juilet balcony. Juliet balconies are either damaged or missing on both north and south elevations. 04/19/2022.

8. Inlow Hall north elevation, facing south. Notice deteriorating Juilet balcony. 04/19/2022.

9. Central pavilion, north elevation. The concrete detailing in the archways will be replaced with windows that match the windows of the south elevation second floor, facing south. 04/19/2022.

10. Inlow Hall's west wing roof. Terracotta tile and composite roof both to be replaced in kind. 04/19/2022..

11. Example of terracotta roofing tile on southeastern corner of central pavilion roof, facing southeast. 04/19/2022.

12. Inlow Hall's chimney to be removed and replaced with terracotta roof tiling on the north side of the west wing, facing northwest. 04/19/2022.

3. Historic Photos of Building (pre-1946)

1. Inlow Hall under construction, 1927/1929. Southwest corner, facing northeast. Courtesy of Eastern Oregon University Digital Archives.

2. Inlow Hall under construction1927/1929. North elevation, facing south. Courtesy of Eastern Oregon University Digital Archives.

3. Inlow Hall in the 1940s. South elevation, facing north. Courtesy of Eastern Oregon University Digital Archives.

4. Inlow Hall, 1929. North elevation, facing south. Courtesy of Eastern Oregon University Digital Archives.

5. Inlow Hall, 1943. Southwest corner, facing northeast. Courtesy of Eastern Oregon University Digital Archives.

6. Inlow Hall, 1930s. Southeast corner, facing northwest. Courtesy of Eastern Oregon University Digital Archives.

EOU INLOW HALL PHASE II

One University Boulevard
La Grande, Oregon 97850-2899
LANDMARK'S REVIEW DRAWING SET
MAY 5, 2023

PROJECT DESCRIPTION

FOR LANDMARK'S LAND USE REVIEW, THIS PACKAGE INCLUDES FULL ROOF AND WINDOW REPLACEMENT, ALTERATION OF INTERIOR 2ND FLOOR REGARDING PROPOSED NEW WINDOWS ON NORTH SIDE, BLD. ENVELOPE REPAIR AND RESTORATION, AND LANDSCAPING WORK.

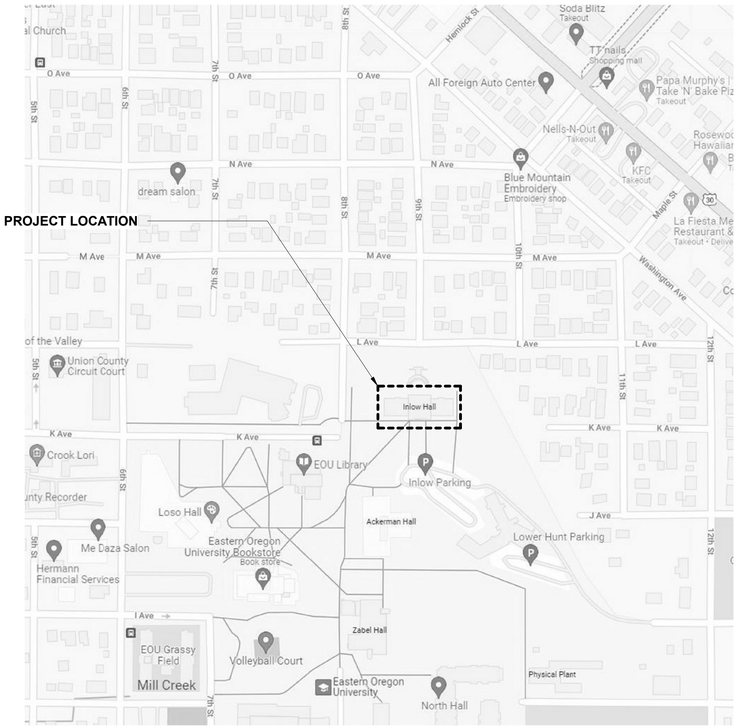
DRAWINGS INDEX

SITE SUMMARY

INLOW HALL WAS CONSTRUCTED IN 1929, AND IS LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES IN CONJUNCTION WITH THE GRAND STAIRCASE TO THE NORTH.

SEE PROJECT MANUAL FOR ARCHAEOLOGICAL OBSERVATION REQUIREMENTS.

VICINITY MAP



REVISIONS

#	DESCRIPTION	DATE	ISSUED TO

PROJECT TEAM

OWNER
Eastern Oregon University
Contact: John Garlitz and
Sarah Hollenbeck
541-962-3114

ARCHITECT
Waterleaf Architecture
419 SW 11th Avenue, Suite 200
Portland, OR 97205
Contact: Bill Bailey, Brian Hjelte,
Anna Wilcox 503-758-7571

CONTRACTOR
McCormak Construction Co.
422 SW Sixth, P.O. Box 972
Pendleton, OR 97801
Contact: Joseph Hull
541-276-1353

STRUCTURAL
KPFF Engineers
111 SW 5th Ave., Suite 2600
Portland, OR 97204
Contact: Jim Vodden
503-227-3251

GEOTECHNICAL
NV5
9450 SW Commerce Circle, Suite 300
Wilsonville, OR 97070
Contact: Greg Schaertl
503-968-8787

LANDSCAPE
Dappled Earth
P.O. Box 97
Powell Butte, OR 97753
Contact: Eileen Obermiller
541-350-7436

CIVIL
Humber Design Group, Inc.
110 SE Main Street
Portland, OR 97214
Contact: Kristian McCombs
503-946-6690

MEP
Colebreit Engineering
721 SW Industrial Way, Suite 110
Bend, OR 97702
Contact: William Caron, Bruce
Jessup, Thomas Kelly
541-728-3293

HISTORIC
Peter Meijer Architect, PC
2232 SE Clinton Street
Portland, OR 97232
Contact: Peter Meijer
503-517-0283

ARCHAEOLOGIST
Archaeological Investigations
Northwest, Inc.
3510 NE 122nd Avenue
Portland, OR 97230
Contact: Teresa Trost
503-761-6605

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COVER

A0.0

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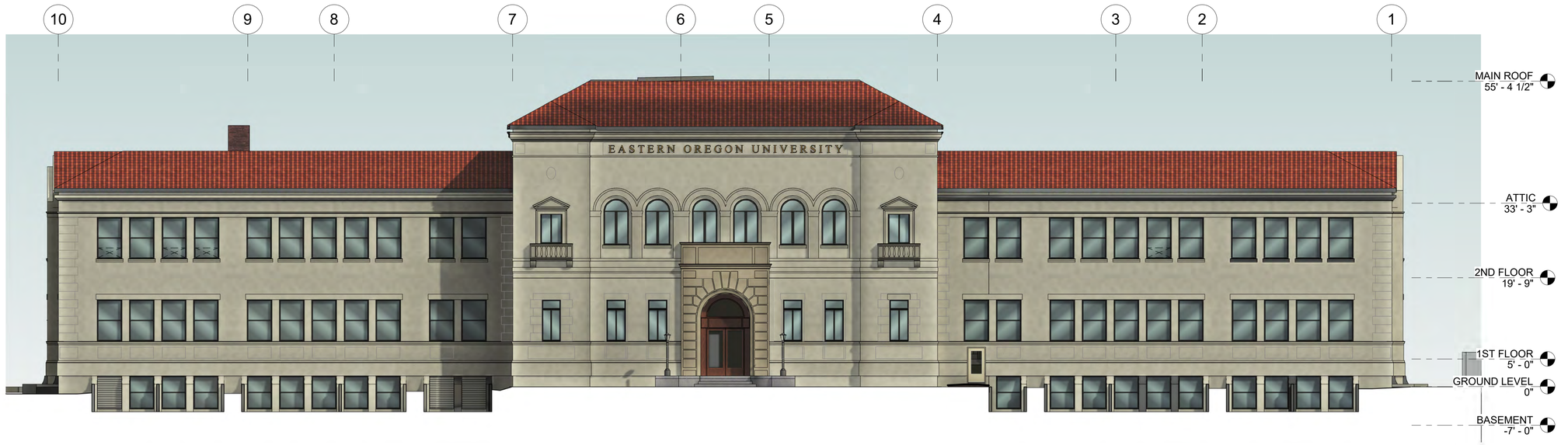
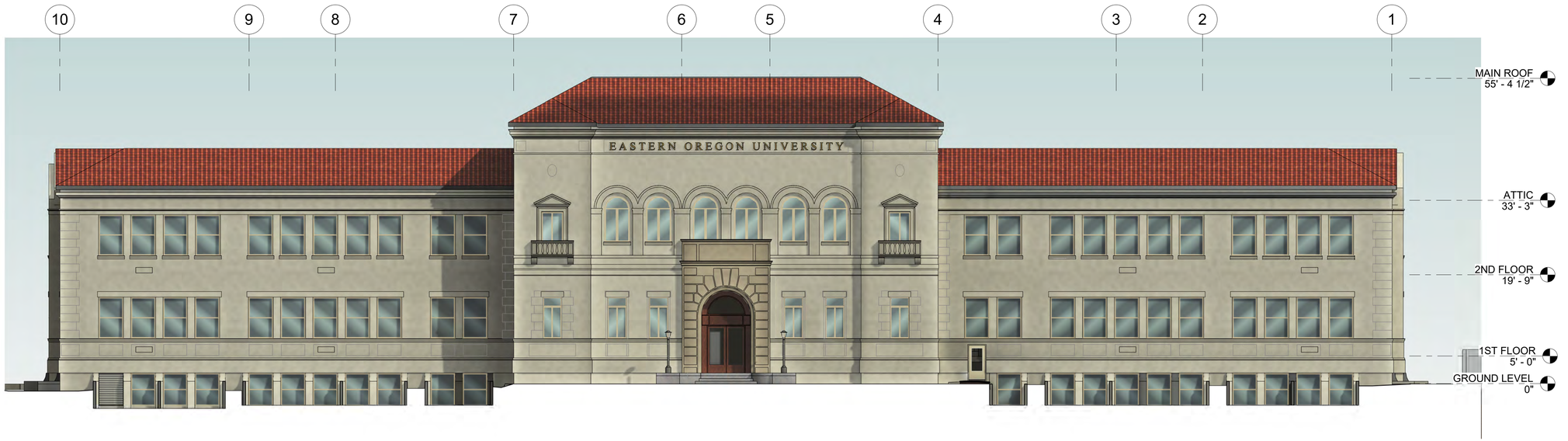


1 ELEVATION SOUTH - EXISTING
3/32" = 1'-0"



2 ELEVATION SOUTH - PROPOSED
3/32" = 1'-0"

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EOU INLOW HALL PHASE II
LANDMARK'S REVIEW
DRAWING SET
One University Boulevard
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LANDMARK'S
REVIEW
DRAWING SET

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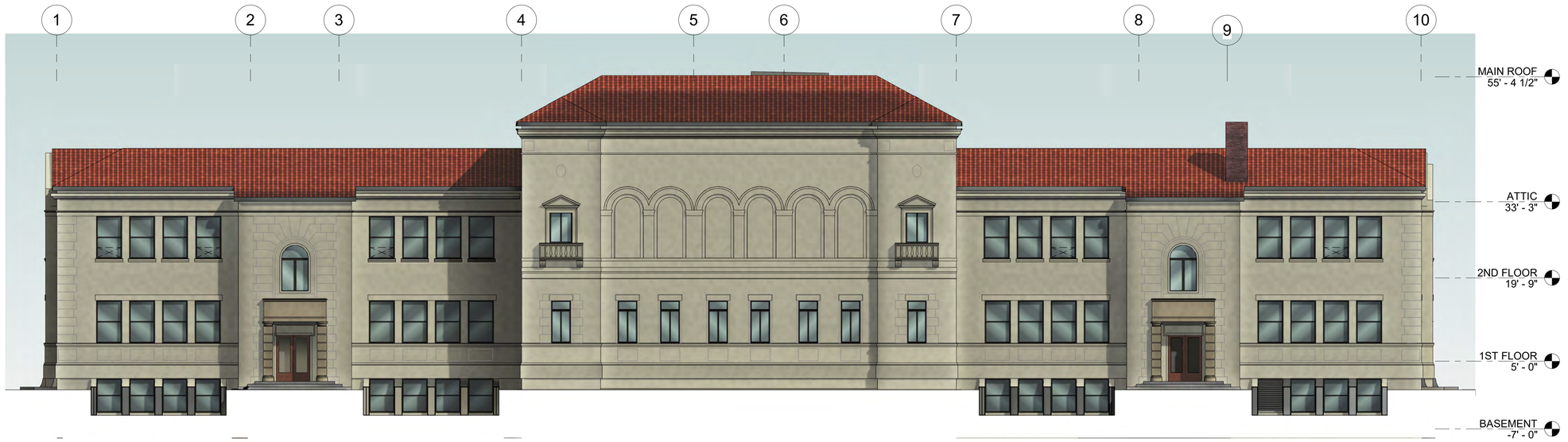
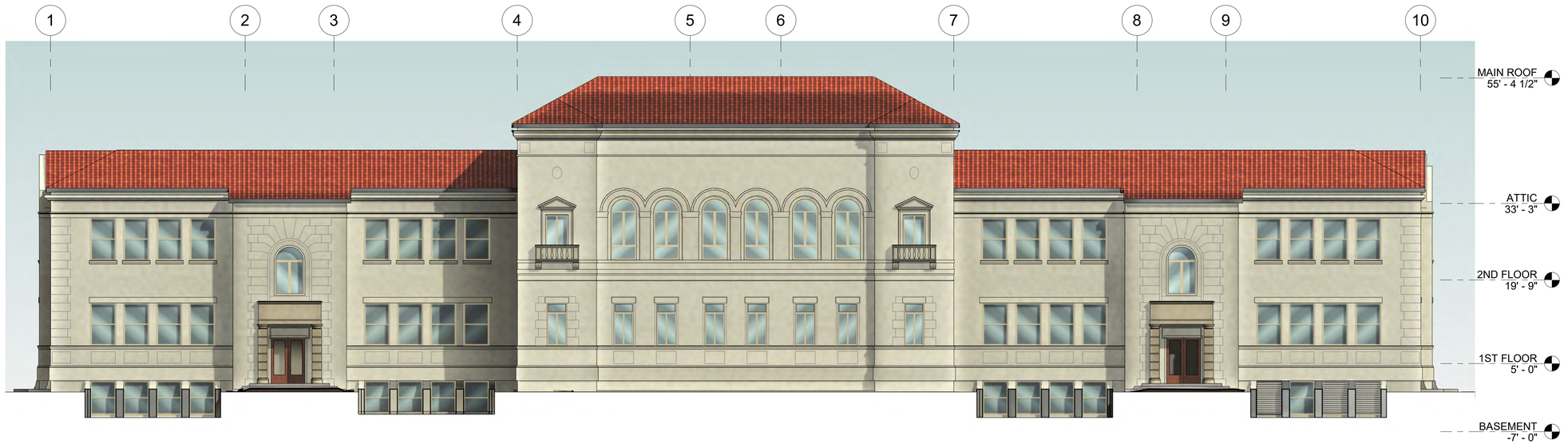
MAIN ELEVATION -
SOUTH - COLOR

A0.1



1 ELEVATION NORTH - EXISTING
3/32" = 1'-0"



2 ELEVATION NORTH - PROPOSED
3/32" = 1'-0"

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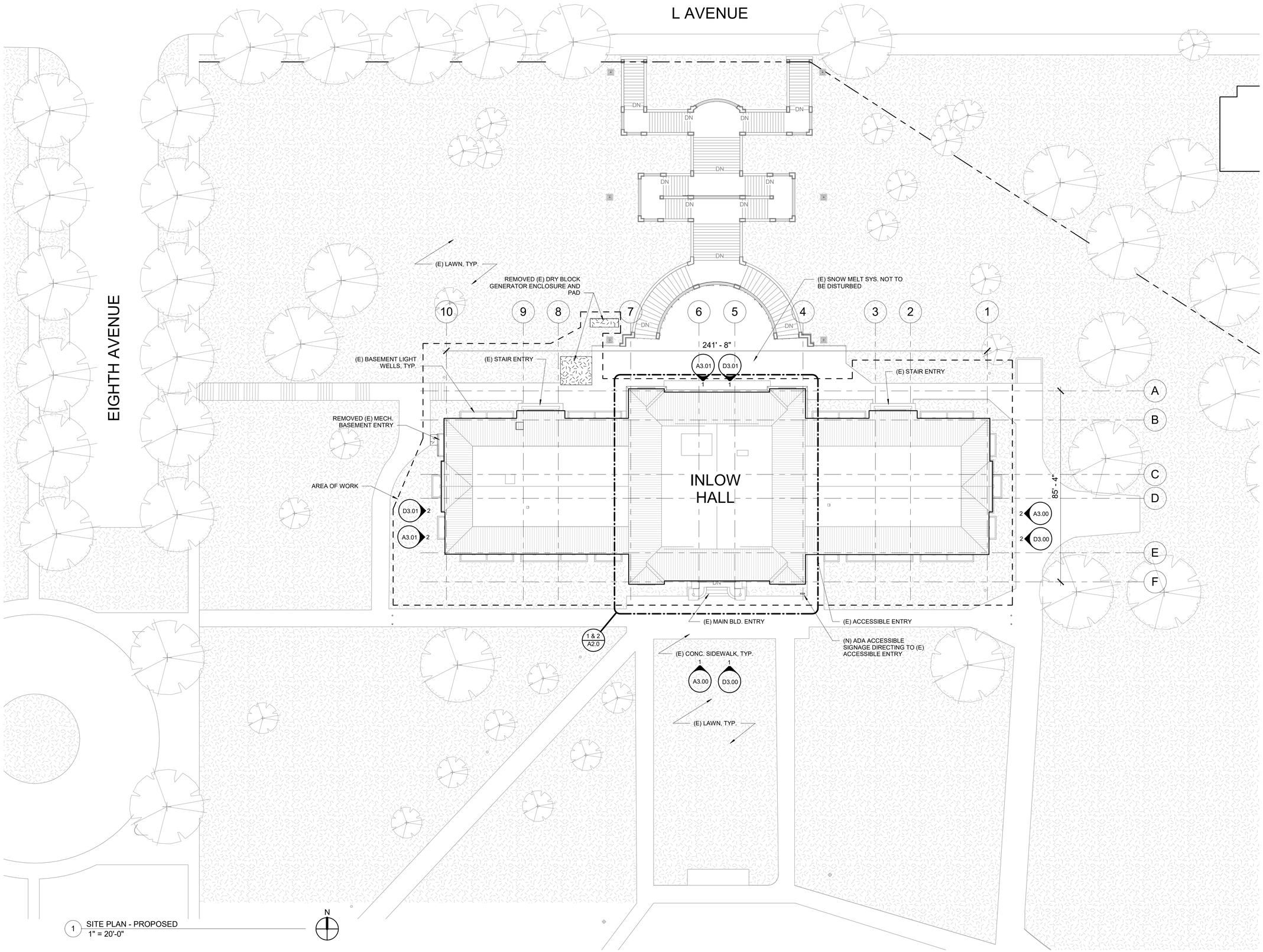
MAIN ELEVATION -
NORTH - COLOR

A0.2



1 SITE PLAN - PROPOSED
1" = 20'-0"

N

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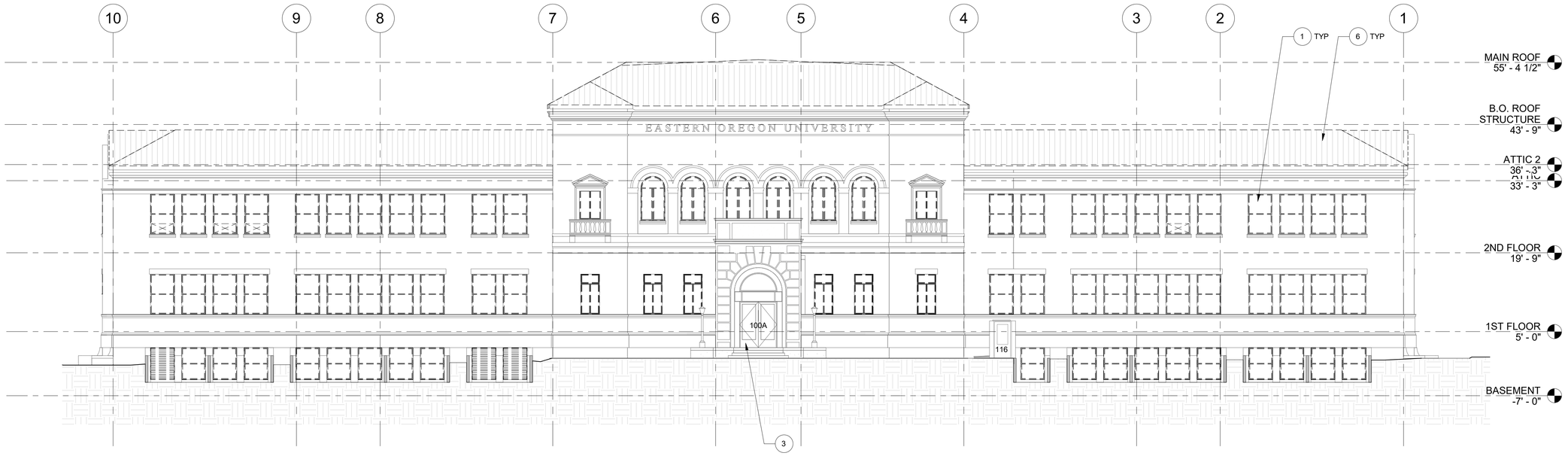
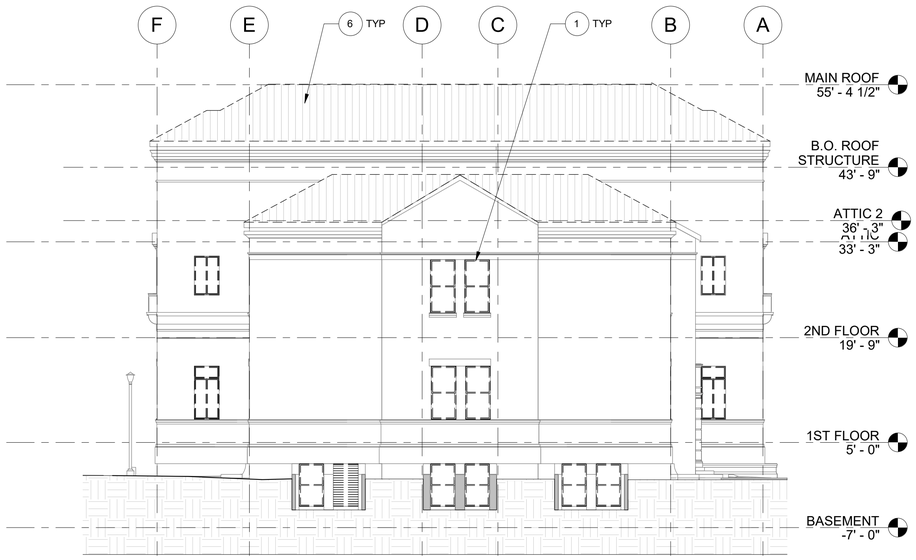
SITE PLAN

A1.00



1 ELEVATION - SOUTH (D)
3/32" = 1'-0"



2 ELEVATION - EAST (D)
3/32" = 1'-0"

LEGEND

(E) ELEMENT TO BE DEMOLISHED

(E) ELEMENT TO REMAIN

KEY NOTES

DEMO ELEVATIONS

1. REMOVE EXTERIOR WINDOWS, WINDOW AC UNITS, & MECH GRILLES. INTERIOR WD SILLS TO REMAIN WHERE POSSIBLE.
2. REMOVE WALL, DOOR & EXTERIOR STAIR @ MECH ROOM.
3. CAREFULLY REMOVE EXT WOOD DOORS IF REQUIRED FOR REFINISH.
4. REMOVE CHIMNEY AS NOTED IN DEMO PLANS.
5. PROVIDE OPENINGS IN EXTERIOR WALL FOR (N) WINDOWS.
6. REMOVE (E) CLAY TILE ROOF PER ROOF DEMO PLAN.

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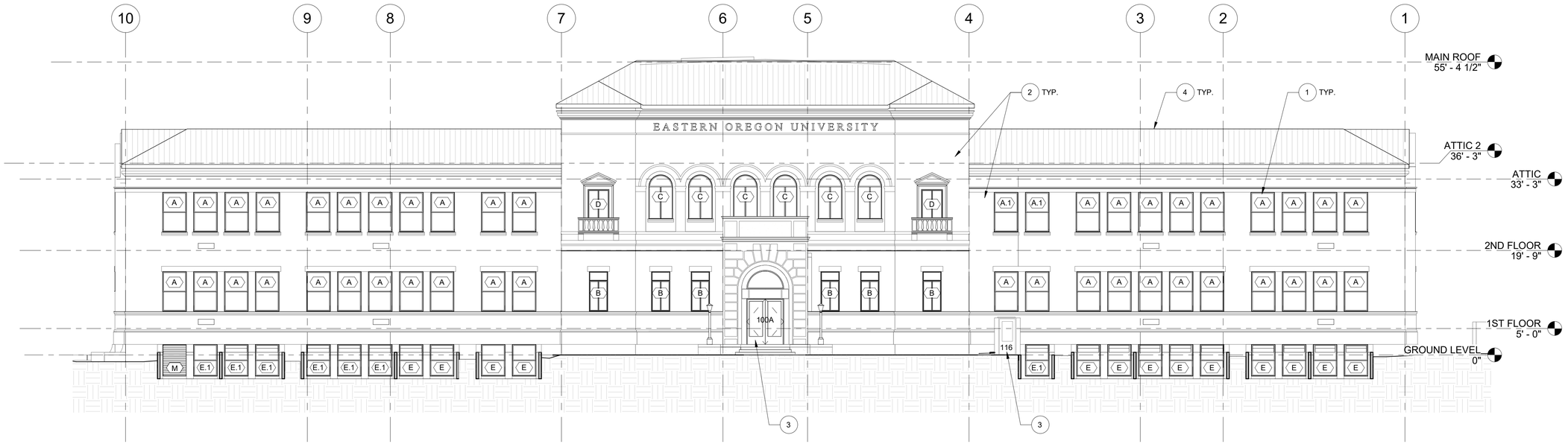
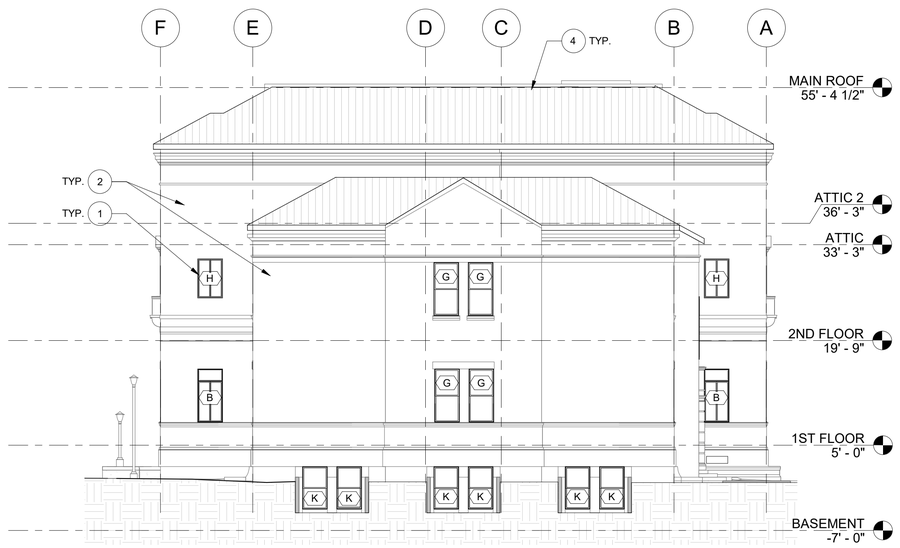
ELEVATIONS - SOUTH
& EAST - DEMO

D3.00



1 ELEVATION - SOUTH
3/32" = 1'-0"



2 ELEVATION - EAST
3/32" = 1'-0"

LEGEND

(E) ELEMENT

(N) ELEMENT

KEY NOTES ELEVATIONS

1. PROVIDE NEW WINDOWS AND MECHANICAL GRILLES
2. PATCH, REPAIR, AND REFINISH EXISTING CONCRETE WALLS AND CAST STONE, CONCRETE, AND METAL DECORATIVE ELEMENTS PER REPAIR ELEVATION DWG.S.
3. REFINISH MAIN ENTRY DOORS, STAIR ENTRY DOORS, AND ELEVATOR ENTRY DOOR.
4. PROVIDE NEW ROOF PER ROOFING PLANS.
5. RECONSTRUCT WALL TO MATCH EXISTING.

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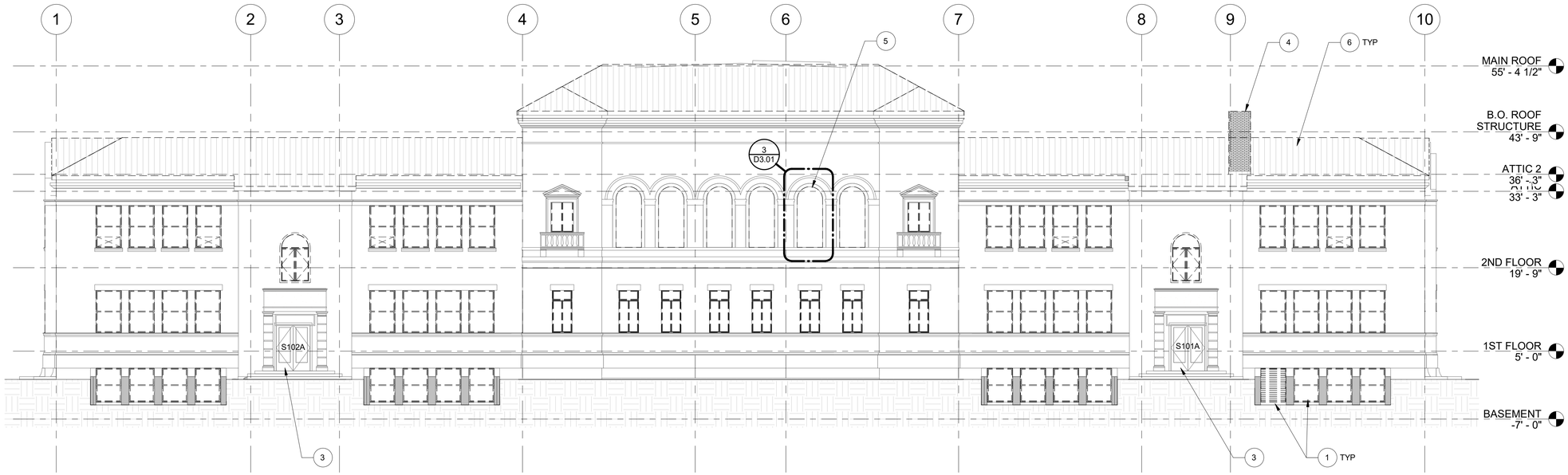
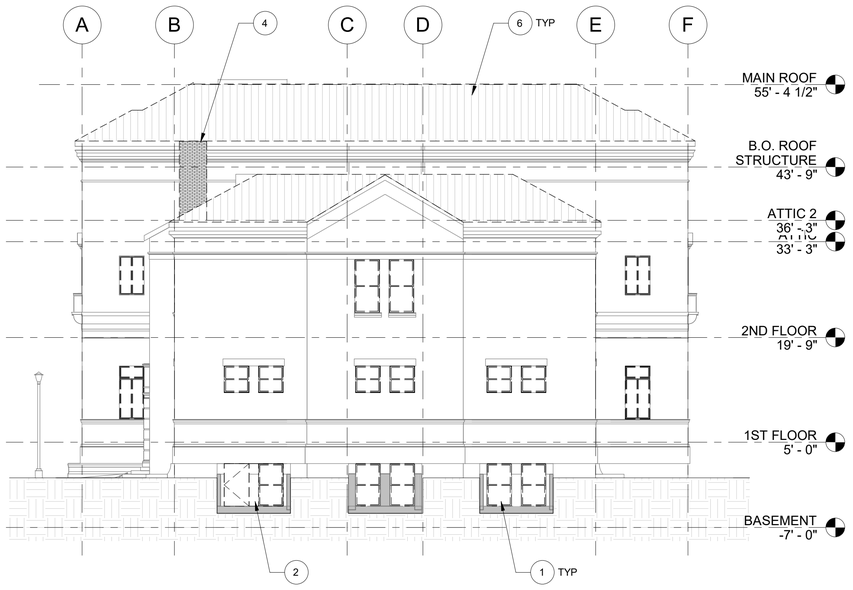
PROPOSED
ELEVATIONS - SOUTH
& EAST

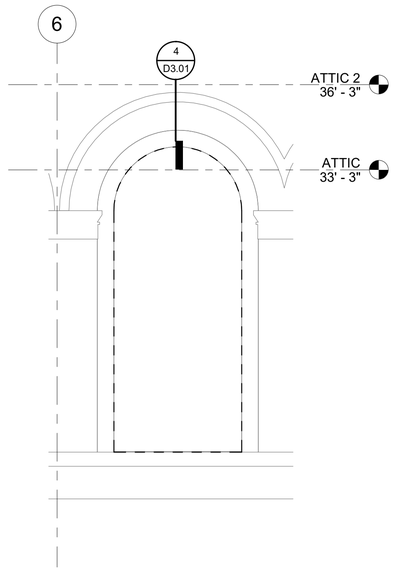
A3.00



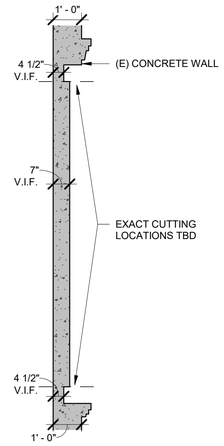
1 ELEVATION - NORTH (D)
3/32" = 1'-0"



2 ELEVATION - WEST (D)
3/32" = 1'-0"



3 ELEVATION - N. (D) - WIN. OPG.
3/8" = 1'-0"



4 WINDOW OPG. DEMO
3/8" = 1'-0"

LEGEND

(E) ELEMENT TO BE DEMOLISHED

(E) ELEMENT TO REMAIN

KEY NOTES

DEMO ELEVATIONS

1. REMOVE EXTERIOR WINDOWS, WINDOW AC UNITS, & MECH GRILLES. INTERIOR WD SILLS TO REMAIN WHERE POSSIBLE.
2. REMOVE WALL, DOOR & EXTERIOR STAIR @ MECH ROOM.
3. CAREFULLY REMOVE EXT WOOD DOORS IF REQUIRED FOR REFINISH.
4. REMOVE CHIMNEY
5. PROVIDE OPENINGS IN EXTERIOR WALL FOR (N) WINDOWS.
6. REMOVE (E) CLAY TILE ROOF PER ROOF DEMO PLAN.

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ELEVATIONS - NORTH
& WEST - DEMO

D3.01

1 ELEVATION - NORTH
3/32" = 1'-0"

2 ELEVATION - WEST
3/32" = 1'-0"

LEGEND

(E) ELEMENT

(N) ELEMENT

KEY NOTES

ELEVATIONS

1. PROVIDE NEW WINDOWS AND MECHANICAL GRILLES
2. PATCH, REPAIR, AND REFINISH EXISTING CONCRETE WALLS AND CAST STONE, CONCRETE, AND METAL DECORATIVE ELEMENTS PER REPAIR ELEVATION DWG.S.
3. REFINISH MAIN ENTRY DOORS, STAIR ENTRY DOORS, AND ELEVATOR ENTRY DOOR.
4. PROVIDE NEW ROOF PER ROOFING PLANS.
5. RECONSTRUCT WALL TO MATCH EXISTING.

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PROPOSED
ELEVATIONS - NORTH
& WEST

A3.01

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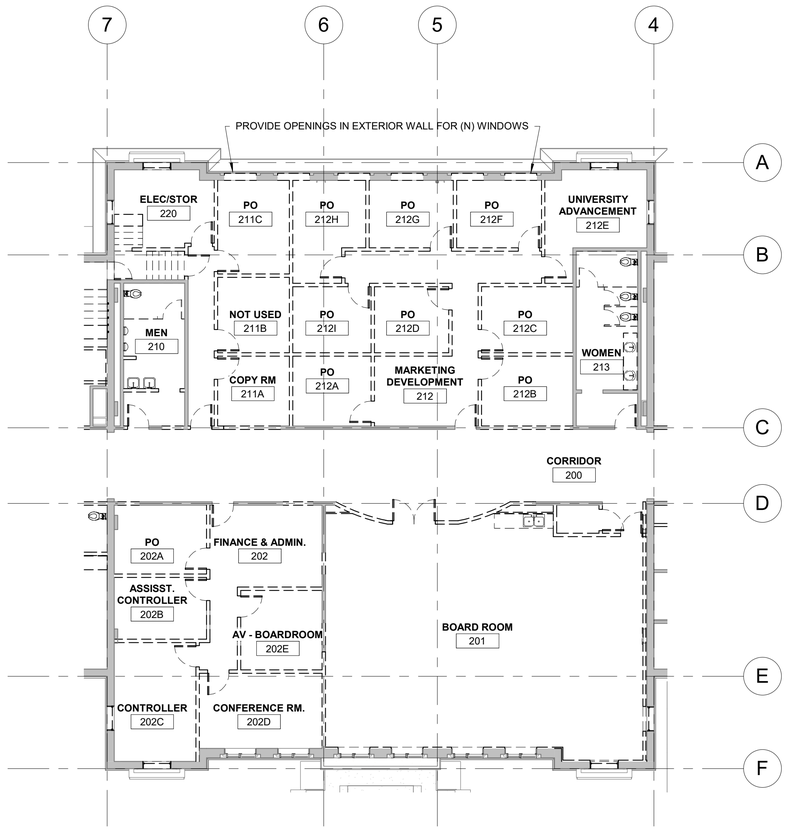
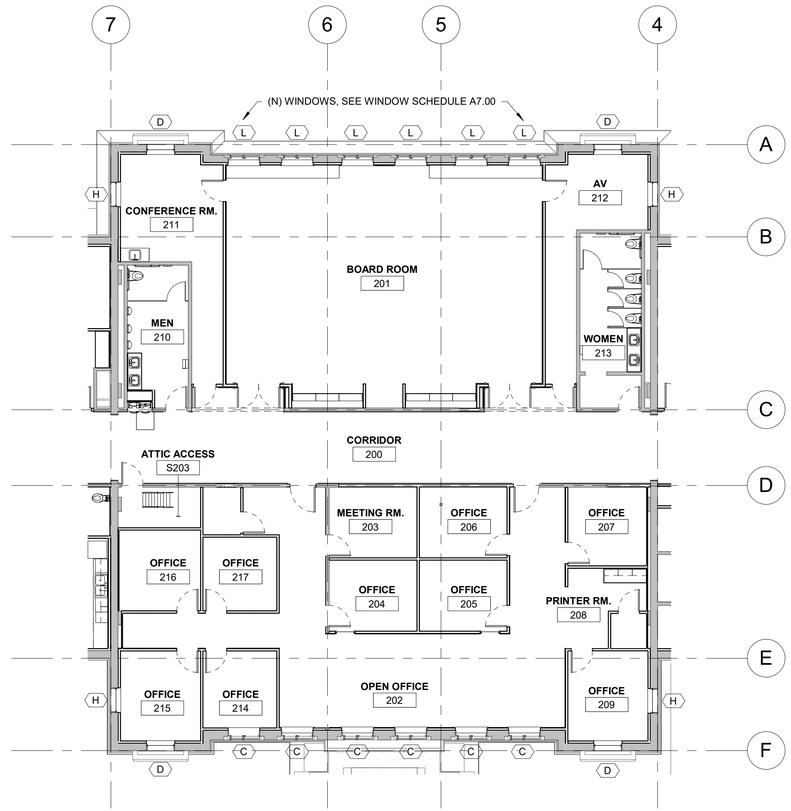
LEGEND PROPOSED PLAN

- (E) WALL / (E) ELEMENT
- (N) WALL / (N) ELEMENT
- AREA NOT IN SCOPE



1 PLAN - BLD. CENTER (DEMO)
3/32" = 1'-0"



2 PLAN - BLD. CENTER (PROPOSED)
3/32" = 1'-0"

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DEMO & PROPOSED
2ND FLOOR PLAN - BLD. CENTER

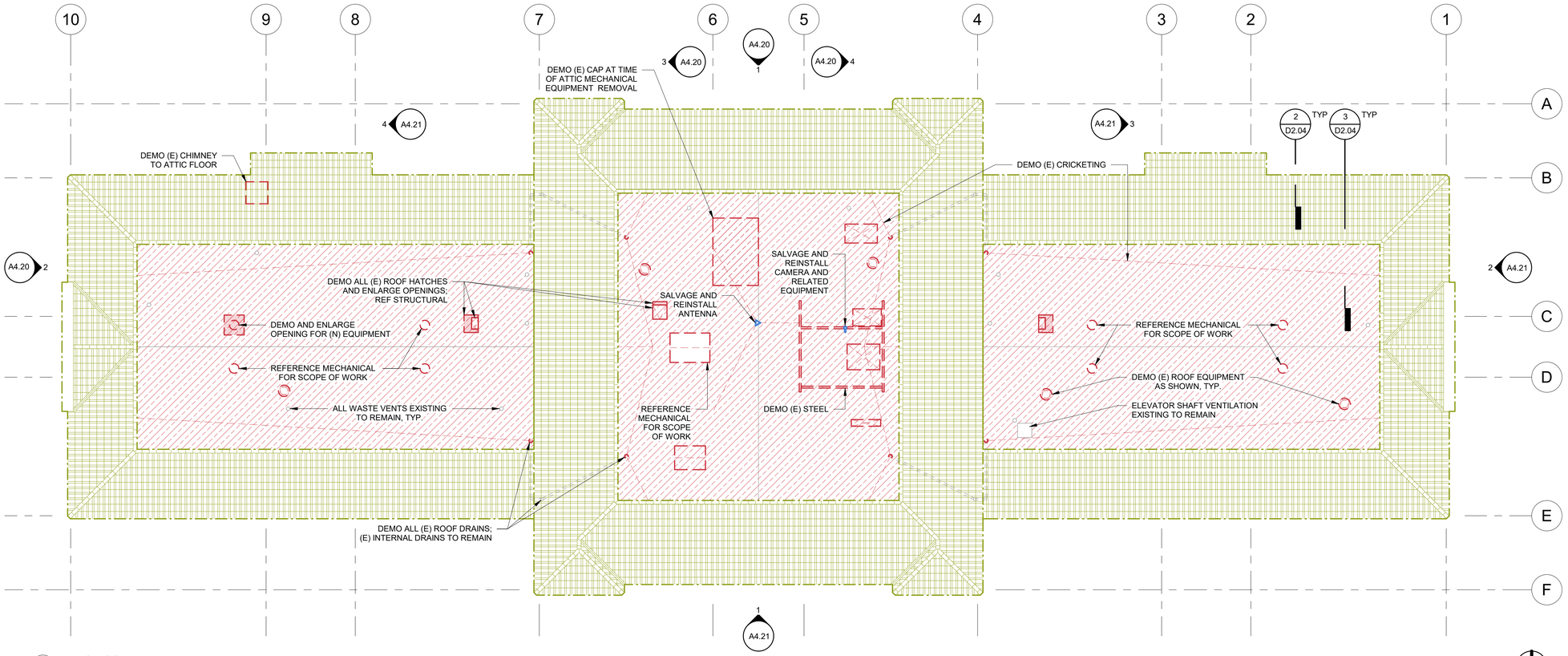
A2.00

General Demo Notes

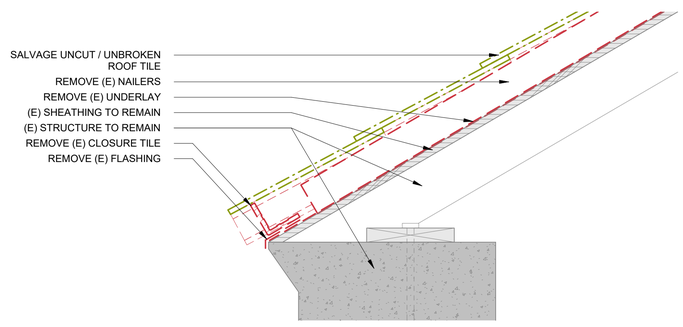
1. (E) CONDITIONS ARE SHOWN FOR REFERENCE ONLY. VERIFY ACTUAL CONDITIONS PRIOR TO BEGINNING WORK.
2. MEP & STRUCTURAL ITEMS SHOWN FOR REFERENCE ONLY. SEE S-M-P-E SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
3. HALT DEMOLITION OF ANY ITEMS THAT APPEAR TO SERVE A STRUCTURAL PURPOSE AND NOTIFY ARCHITECT.

Roof Demo Legend

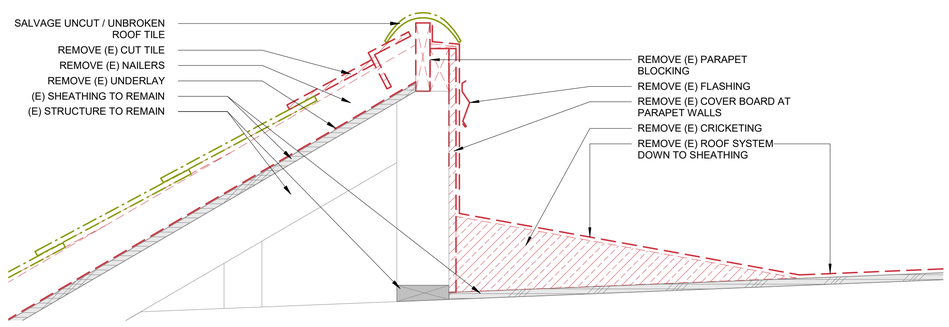
- DEMO (E) ROOF SYSTEM AND CRICKETING
- DEMO (E) ROOF DECK AND STRUCTURE
- ROOF TILE TO BE REMOVED; SALVAGE UNBROKEN TILES
- SALVAGE, RETAIN FOR RE-INSTALLATION



1 DEMO ROOF PLAN
3/32" = 1'-0"



2 DEMO DETAIL: TILE ROOF EAVE TYP.
1 1/2" = 1'-0"



3 DEMO DETAIL: TILE ROOF & LOW-SLOPE ROOF TYP.
1 1/2" = 1'-0"

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PETER MEIJER ARCHITECT, PC

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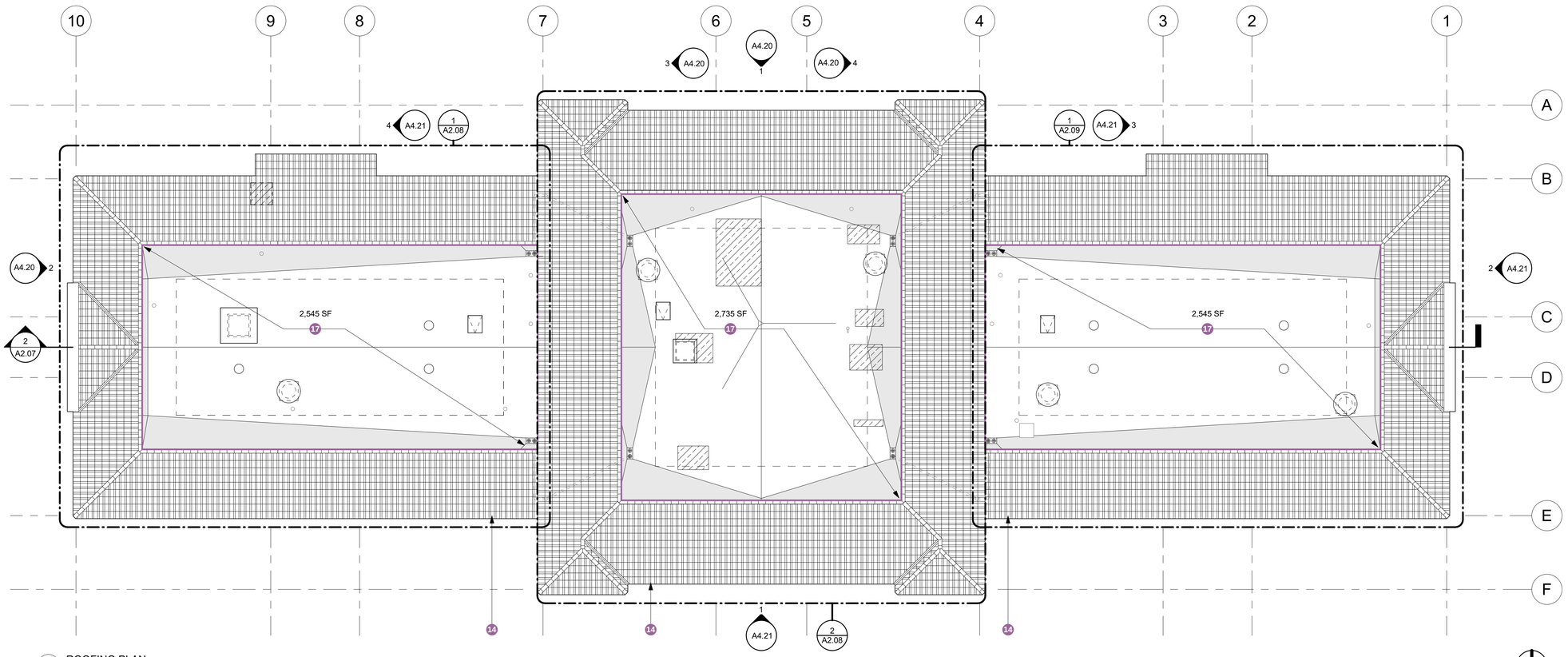
ROOF PLAN & SECTION - DEMO

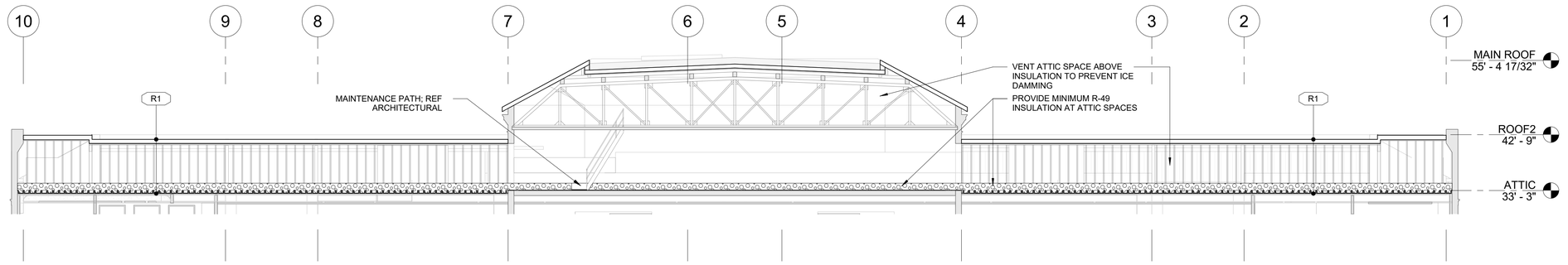
D2.04

Roof Replacement Quantities

14	ROOF TILE - REPLACE	10,540	SQFT
17	LOW-SLOPE ROOF - REPLACE	7,825	SQFT
	INFILL ROOF DECK	220	SQFT
	CRICKETING	1,510	SQFT



1 ROOFING PLAN
3/32" = 1'-0"



2 E/W ATTIC SECTION
3/32" = 1'-0"

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EOU INLOW HALL PHASE II

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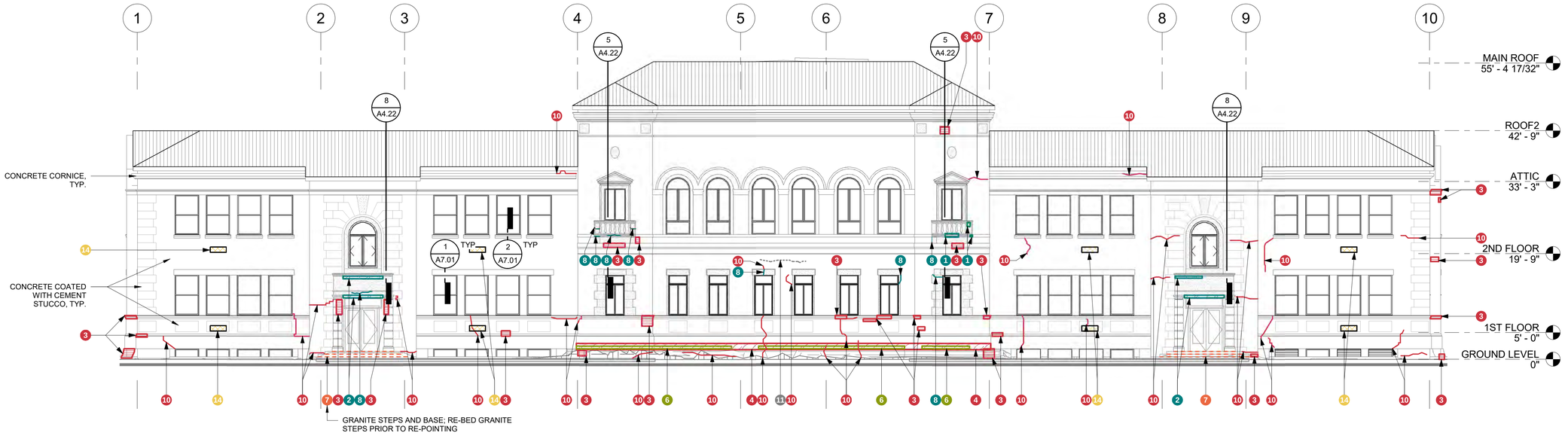
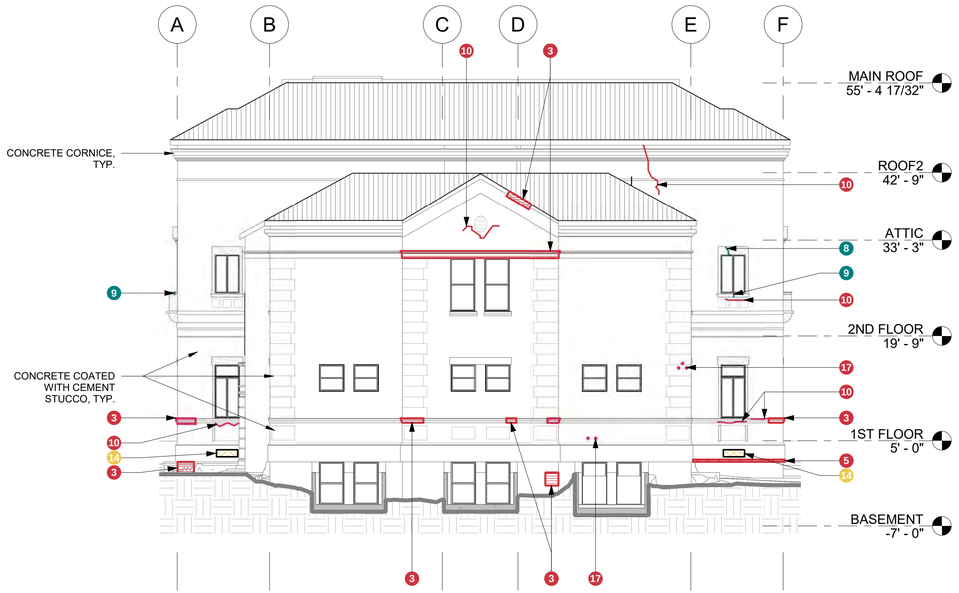
PROPOSED
ROOFING PLAN & SECTION

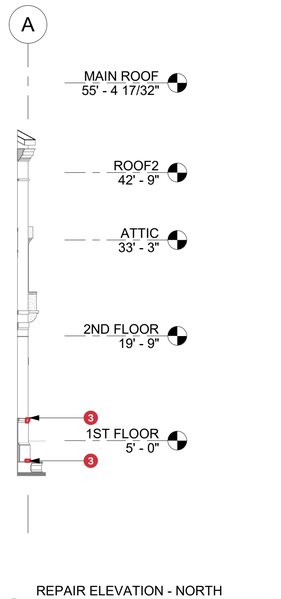
A2.04



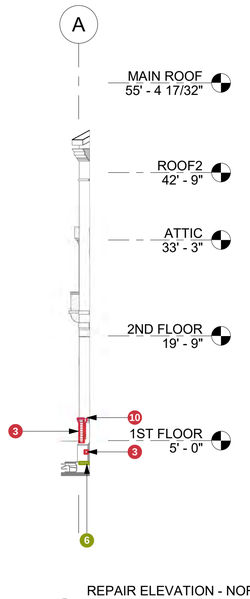
1 REPAIR ELEVATION - NORTH
3/32" = 1'-0"



2 REPAIR ELEVATION - WEST
3/32" = 1'-0"



3 REPAIR ELEVATION - NORTH ELEVATION, CENTRAL EAST FACADE
3/32" = 1'-0"



4 REPAIR ELEVATION - NORTH ELEVATION, CENTRAL WEST FACADE
3/32" = 1'-0"

General Repair Notes

1. CLEAN THE ENTIRE BUILDING, ALL FACADES, WITH LOW-PRESSURE HOT WATER TO REMOVE BIOLOGICAL GROWTH, STAINING, AND EFFLORESCENCE. WHERE LOW-PRESSURE HOT WATER IS INSUFFICIENT PROVIDE ALTERNATIVE MEANS FOR CLEANING USING DOLOMITE, WATER, AND AIR MIXTURE (ROTEC VORTEX SYSTEM).
2. WHERE EXISTING EXTERIOR ELEMENTS ARE REMOVED LEAVING AN OPENING, PATCH WITH RESTORATION MORTAR.

Envelope Repair Legend

1. **CAST STONE SPALL REPAIR:** PROVIDE RESTORATION MORTAR REPAIR OF SPALL.
2. **CAST STONE CLEANING:** PROVIDE ADDITIONAL ROUND OF CLEANING AT AREAS WITH STAINING, BIOLOGICAL GROWTH, AND EFFLORESCENCE.
3. **CONCRETE SPALL REPAIR:** PROVIDE RESTORATION MORTAR REPAIR OF SPALL.
4. **CONCRETE CLEANING:** PROVIDE ADDITIONAL ROUND OF CLEANING AT AREAS WITH STAINING, BIOLOGICAL GROWTH, AND EFFLORESCENCE.
5. **CONCRETE DELAMINATION REPAIR:** PROVIDE RESTORATION MORTAR REPAIR OF DELAMINATION.
6. **COATING REPAIR:** PROVIDE ELASTOMERIC COATING AT AREA OF FAILED COATING.
7. **REPOINT GRANITE:** REPOINT OPEN, DETERIORATED, AND FAILED JOINTS AT GRANITE.
8. **CAST STONE CRACK REPAIR:** EPOXY INJECT CRACKED CAST STONE UNITS.
9. **REPOINT CAST STONE:** REPOINT OPEN, DETERIORATED, AND FAILED JOINTS AT CAST STONE UNITS.
10. **CONCRETE CRACK REPAIR:** EPOXY INJECT CRACKED CONCRETE.
11. **CONCRETE COLD JOINT:** LOCATIONS NOTED. NO REPAIR REQUIRED.
12. **CONCRETE REPAIR:** PROVIDE RESTORATION MORTAR REPAIR AT HOLES IN CONCRETE.
13. **REPLACE CAST STONE:** PROVIDE NEW CAST STONE BALUSTRADE.
14. **REPLACE METAL PANEL:** PROVIDE NEW DECORATIVE METAL PANEL.

(E) CAST STONE
REFERENCE ONLY

NOTE:
REFERENCE ROOF PLAN FOR SCOPE OF ROOF REPLACEMENT WORK.

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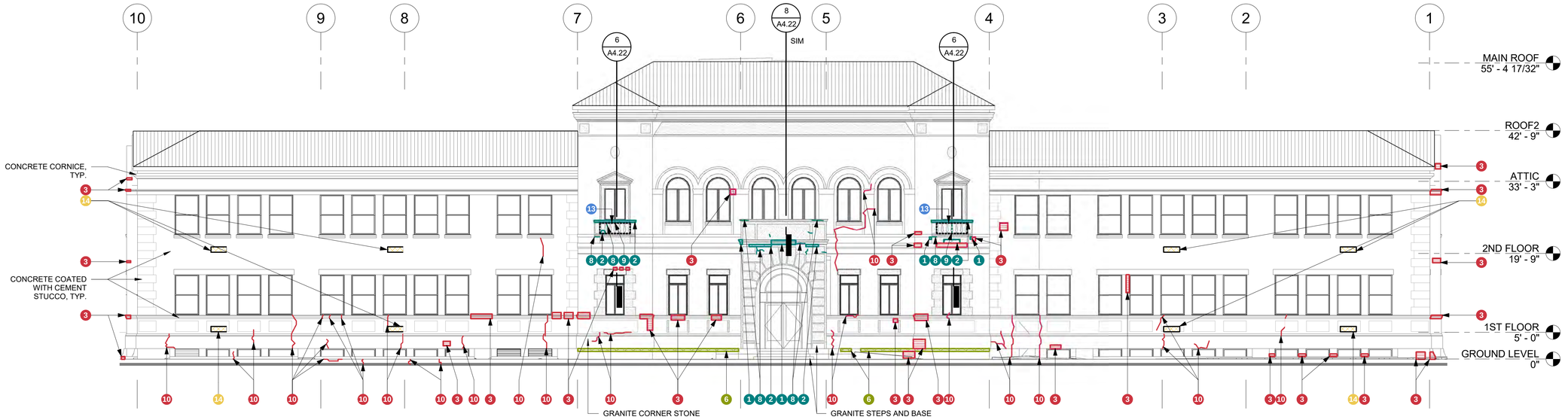
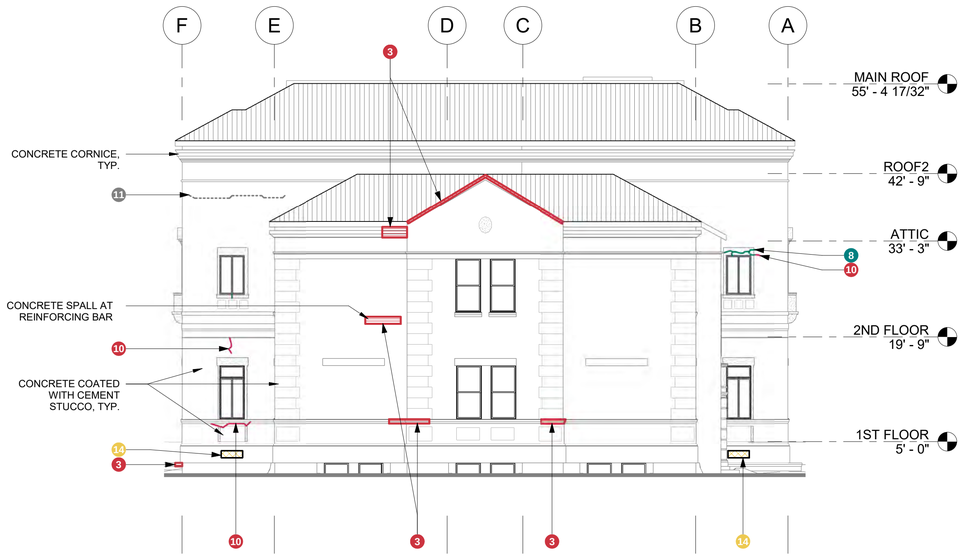
REPAIR ELEVATIONS

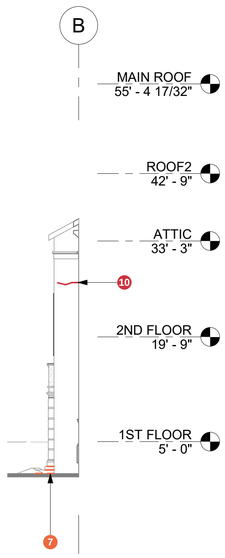
A4.20



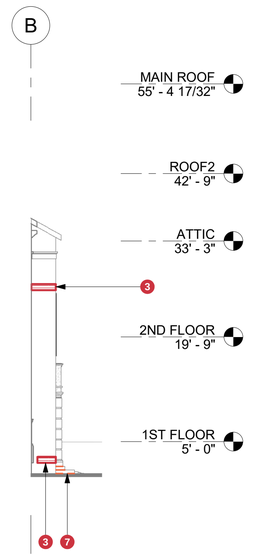
1 REPAIR ELEVATION - SOUTH
3/32" = 1'-0"



2 REPAIR ELEVATION - EAST
3/32" = 1'-0"



3 REPAIR ELEVATION - NORTH ELEVATION, EAST REAR ENTRY, WEST FACADE
3/32" = 1'-0"



4 REPAIR ELEVATION - NORTH ELEVATION, WEST REAR ENTRY, EAST FACADE
3/32" = 1'-0"

General Repair Notes

1. CLEAN THE ENTIRE BUILDING, ALL FACADES, WITH LOW-PRESSURE HOT WATER TO REMOVE BIOLOGICAL GROWTH, STAINING, AND EFFLORESCENCE. WHERE LOW-PRESSURE HOT WATER IS INSUFFICIENT PROVIDE ALTERNATIVE MEANS FOR CLEANING USING DOLOMITE, WATER, AND AIR MIXTURE (ROTEC VORTEX SYSTEM).
2. WHERE EXISTING EXTERIOR ELEMENTS ARE REMOVED LEAVING AN OPENING, PATCH WITH RESTORATION MORTAR.

Envelope Repair Legend

1. **CAST STONE SPALL REPAIR:** PROVIDE RESTORATION MORTAR REPAIR OF SPALL.
2. **CAST STONE CLEANING:** PROVIDE ADDITIONAL ROUND OF CLEANING AT AREAS WITH STAINING, BIOLOGICAL GROWTH, AND EFFLORESCENCE.
3. **CONCRETE SPALL REPAIR:** PROVIDE RESTORATION MORTAR REPAIR OF SPALL.
4. **CONCRETE CLEANING:** PROVIDE ADDITIONAL ROUND OF CLEANING AT AREAS WITH STAINING, BIOLOGICAL GROWTH, AND EFFLORESCENCE.
5. **CONCRETE DELAMINATION REPAIR:** PROVIDE RESTORATION MORTAR REPAIR OF DELAMINATION.
6. **COATING REPAIR:** PROVIDE ELASTOMERIC COATING AT AREA OF FAILED COATING.
7. **REPOINT GRANITE:** REPOINT OPEN, DETERIORATED, AND FAILED JOINTS AT GRANITE.
8. **CAST STONE CRACK REPAIR:** EPOXY INJECT CRACKED CAST STONE UNITS.
9. **REPOINT CAST STONE:** REPOINT OPEN, DETERIORATED, AND FAILED JOINTS AT CAST STONE UNITS.
10. **CONCRETE CRACK REPAIR:** EPOXY INJECT CRACKED CONCRETE.
11. **CONCRETE COLD JOINT:** LOCATIONS NOTED. NO REPAIR REQUIRED.
12. **CONCRETE REPAIR:** PROVIDE RESTORATION MORTAR REPAIR AT HOLES IN CONCRETE.
13. **REPLACE CAST STONE:** PROVIDE NEW CAST STONE BALUSTRADE.
14. **REPLACE METAL PANEL:** PROVIDE NEW DECORATIVE METAL PANEL.

(E) CAST STONE REFERENCE ONLY

NOTE: REFERENCE ROOF PLAN FOR SCOPE OF ROOF REPLACEMENT WORK.

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PETER MEIJER ARCHITECT, PC

EOU INLOW HALL PHASE II

LANDMARK'S REVIEW
DRAWING SET

One University Boulevard
La Grande, Oregon 97850-2899

LANDMARKS
REVIEW
DRAWING SET

PROJECT #: **2205.00**
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REVISIONS:

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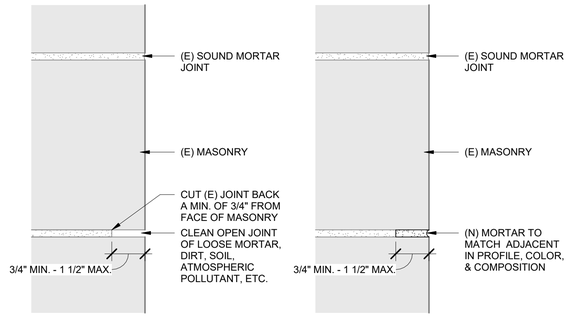
REPAIR ELEVATIONS

A4.21

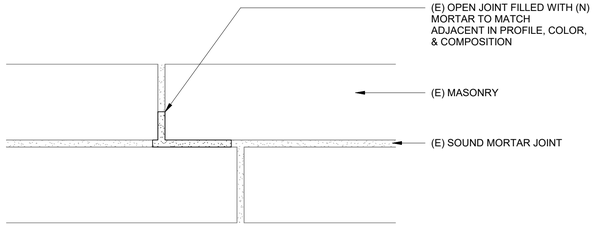
1 REPAIR TREATMENT - (E) HAIRLINE CRACK
3" = 1'-0"

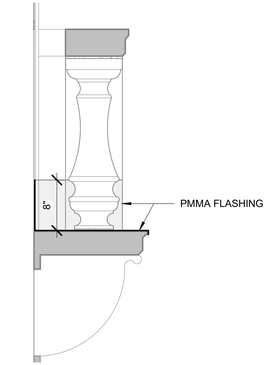
2 REPAIR TREATMENT - (E) SPALL
3" = 1'-0"

3 REPAIR TREATMENT - (E) EMBEDDED OBJECT
3" = 1'-0"

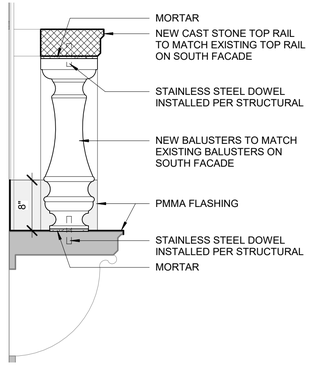


4 REPAIR TREATMENT - (E) OPEN JOINT
3" = 1'-0"

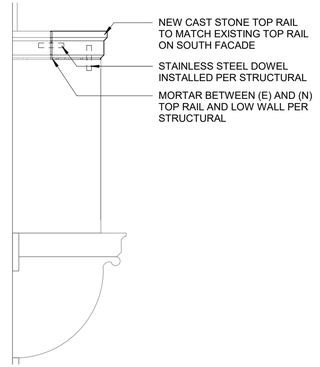




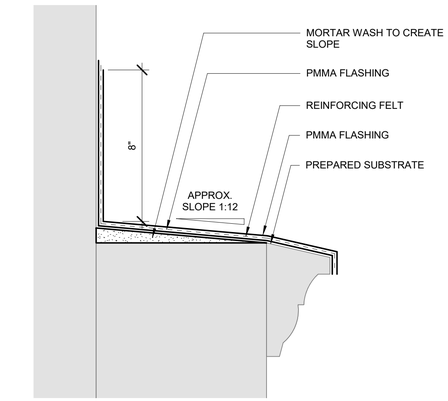
5 SECTION - WATERPROOFING AT (E) JULIET BALCONIES WITH (E) BALUSTRADE
1" = 1'-0"



6 SECTION - WATERPROOFING AT (E) JULIET BALCONIES WITH (N) BALUSTRADE
1" = 1'-0"



7 ELEVATION - (N) TOP RAIL AT SIDE OF JULIET BALCONIES WITH (N) BALUSTRADE
1" = 1'-0"



8 SECTION - WATERPROOFING AT NORTH ENTRIES CAST STONE
3" = 1'-0"

General Repair Notes

1. CLEAN THE ENTIRE BUILDING, ALL FACADES, WITH LOW-PRESSURE HOT WATER TO REMOVE BIOLOGICAL GROWTH, STAINING, AND EFFLORESCENCE. WHERE LOW-PRESSURE HOT WATER IS INSUFFICIENT PROVIDE ALTERNATIVE MEANS FOR CLEANING USING DOLOMITE, WATER, AND AIR MIXTURE (ROTEC VORTEX SYSTEM).
2. WHERE EXISTING EXTERIOR ELEMENTS ARE REMOVED LEAVING AN OPENING, PATCH WITH RESTORATION MORTAR.

Envelope Repair Legend		Quantities	
1	**CAST STONE SPALL REPAIR:** PROVIDE RESTORATION MORTAR REPAIR OF SPALL.	7	SQFT
2	**CAST STONE CLEANING:** PROVIDE ADDITIONAL ROUND OF CLEANING AT AREAS WITH STAINING, BIOLOGICAL GROWTH, AND EFFLORESCENCE.	24	SQFT
3	**CONCRETE SPALL REPAIR:** PROVIDE RESTORATION MORTAR REPAIR OF SPALL.	176	SQFT
4	**CONCRETE CLEANING:** PROVIDE ADDITIONAL ROUND OF CLEANING AT AREAS WITH STAINING, BIOLOGICAL GROWTH, AND EFFLORESCENCE.	91	SQFT
5	**CONCRETE DELAMINATION REPAIR:** PROVIDE RESTORATION MORTAR REPAIR OF DELAMINATION.	5	SQFT
6	**COATING REPAIR:** PROVIDE ELASTOMERIC COATING AT AREA OF FAILED COATING.	88	SQFT
7	**REPOINT GRANITE:** REPOINT OPEN, DETERIORATED, AND FAILED JOINTS AT GRANITE.	95	LNFT
8	**CAST STONE CRACK REPAIR:** EPOXY INJECT CRACKED CAST STONE UNITS.	38	LNFT
9	**REPOINT CAST STONE:** REPOINT OPEN, DETERIORATED, AND FAILED JOINTS AT CAST STONE UNITS.	5	LNFT
10	**CONCRETE CRACK REPAIR:** EPOXY INJECT CRACKED CONCRETE.	318	LNFT
11	**CONCRETE COLD JOINT:** LOCATIONS NOTED. NO REPAIR REQUIRED.		
12	**CONCRETE REPAIR:** PROVIDE RESTORATION MORTAR REPAIR AT HOLES IN CONCRETE.	5	INSTANCES
13	**REPLACE CAST STONE:** PROVIDE NEW CAST STONE BALUSTRADE.	14	BALUSTERS
14	**REPLACE METAL PANEL:** PROVIDE NEW DECORATIVE METAL PANEL.	20	PANELS
	(E) CAST STONE REFERENCE ONLY		

NOTE:
REFERENCE ROOF PLAN FOR SCOPE OF ROOF REPLACEMENT WORK.

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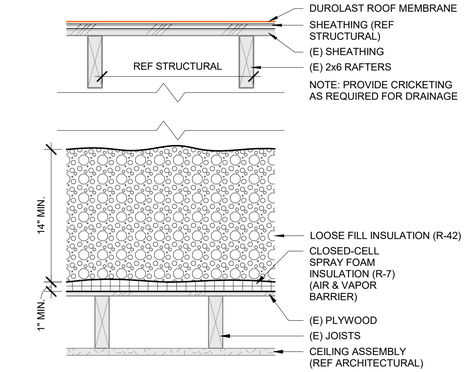
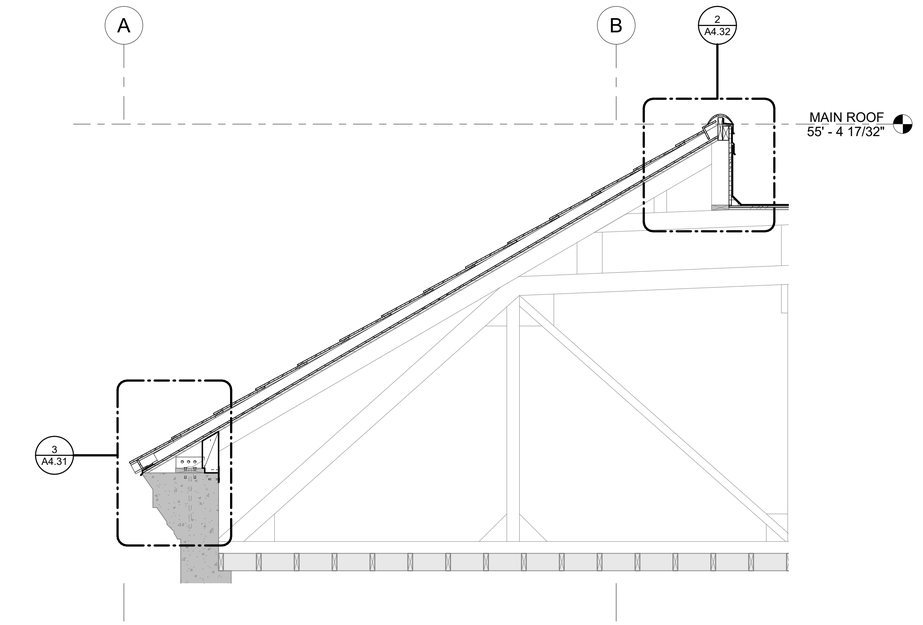
REPAIR DETAILS

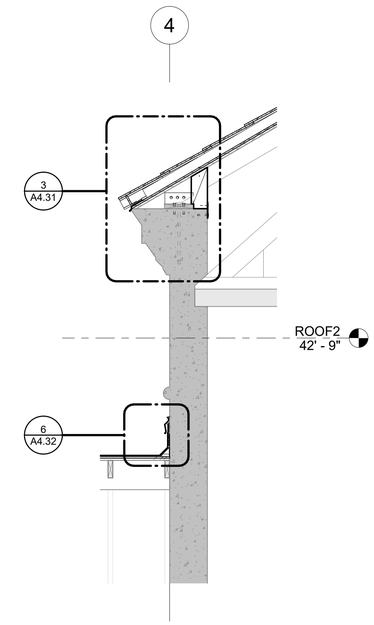
A4.22



R1 LOW-SLOPE ROOF ASSEMBLY @ (E) LEVEL 2 CEILING
1 1/2" = 1'-0"



1 WALL SECTION: TILE ROOF
1/2" = 1'-0"



2 WALL SECTION: ROOF-TO-WALL TRANSITION
1/2" = 1'-0"

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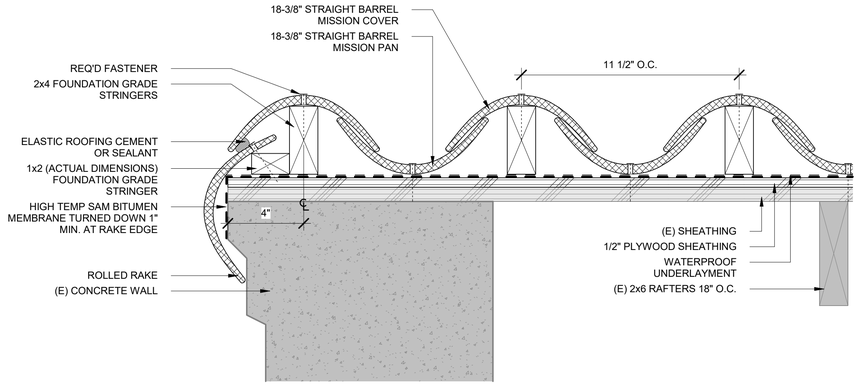
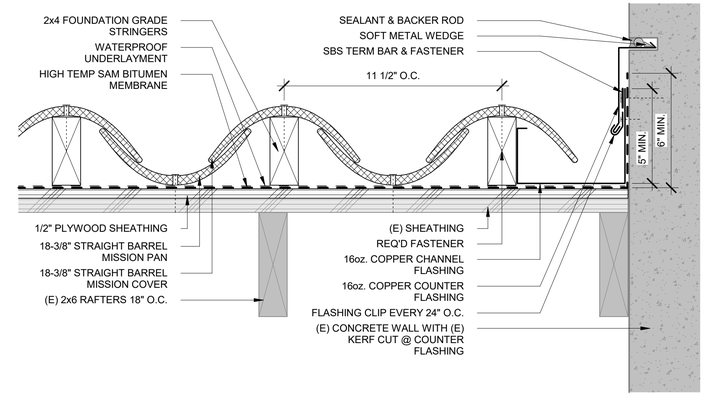
PROPOSED
ROOF SECTIONS

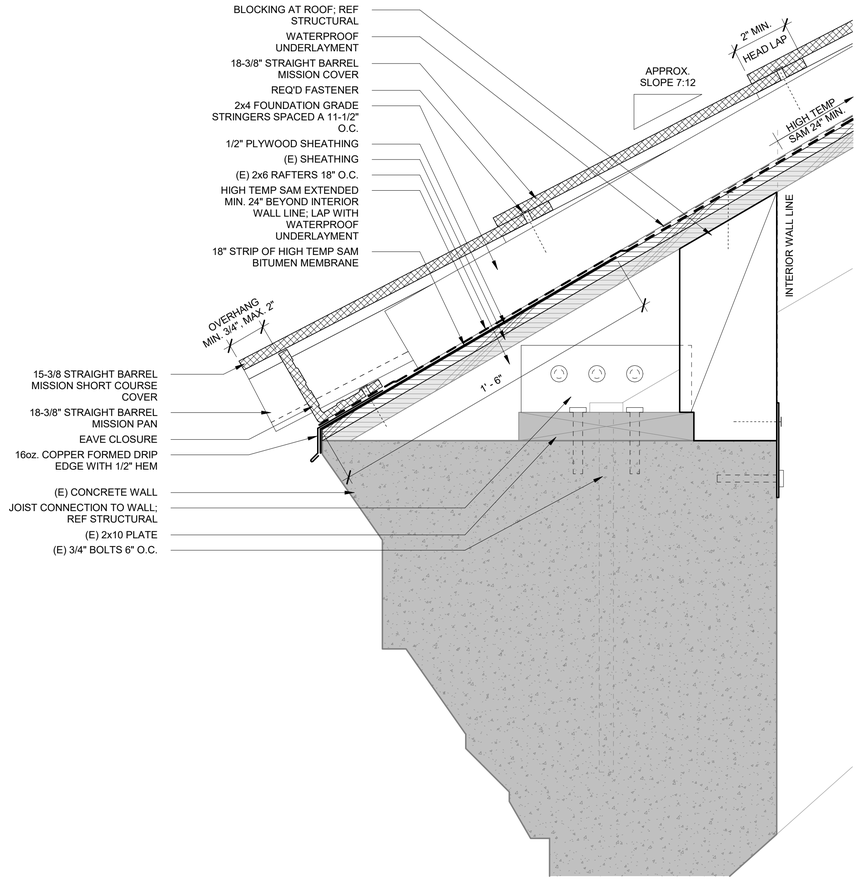
A4.30



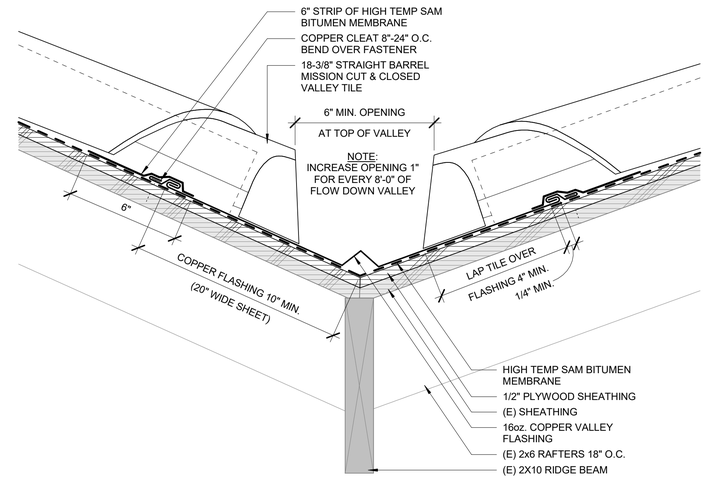
1 TILE ROOF RAKE EDGE
3" = 1'-0"



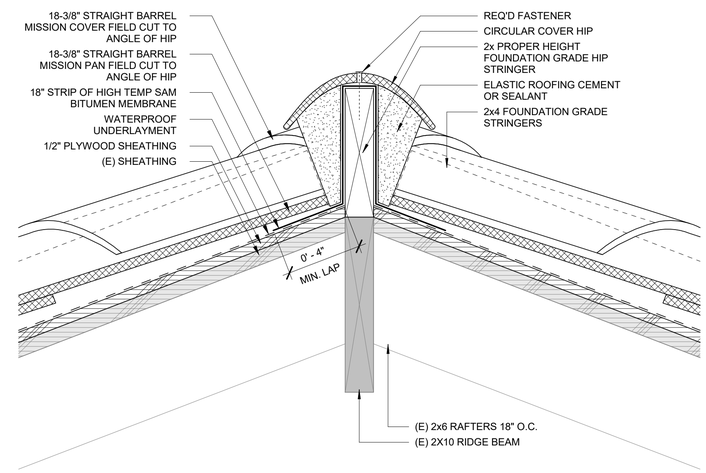
2 TILE ROOF TO (E) WALL TRANSITION
3" = 1'-0"



3 TILE ROOF EAVE
3" = 1'-0"



4 TILE ROOF VALLEY
3" = 1'-0"



5 TILE ROOF HIP
3" = 1'-0"

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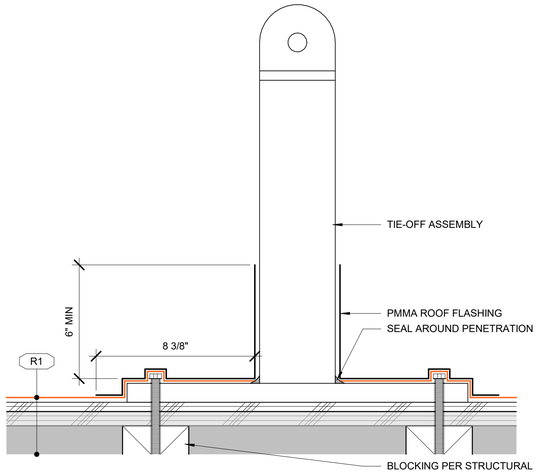
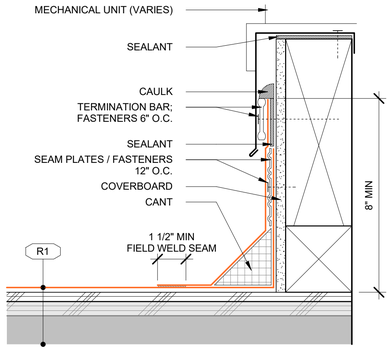
PROPOSED
ROOF DETAILS

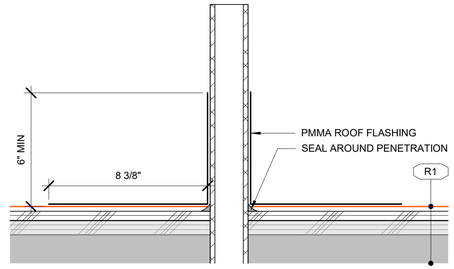
A4.31



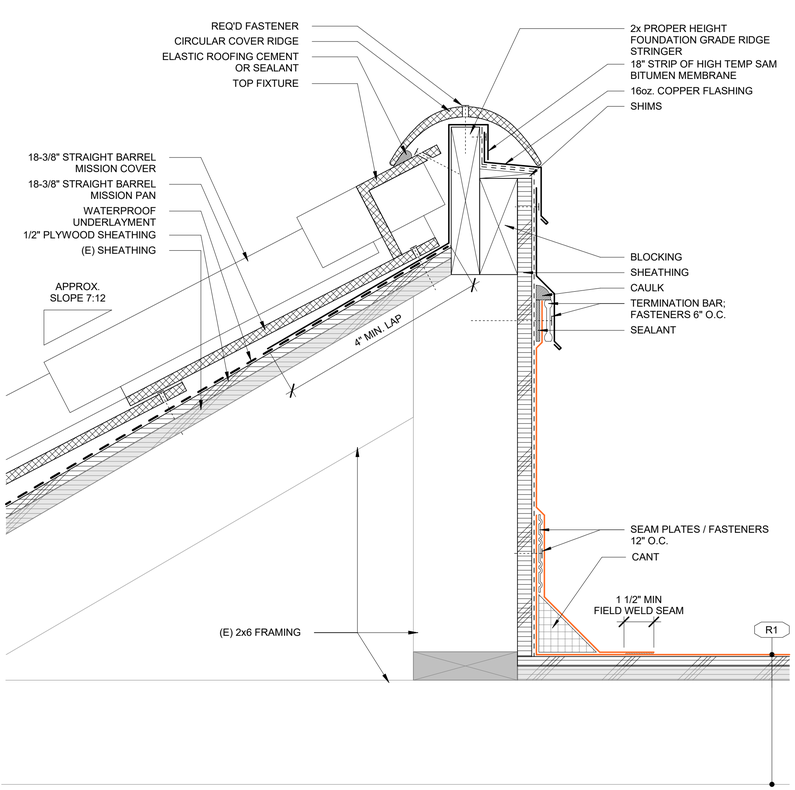
1 ROOF DETAIL - NEW ROOF AT TIE-OFF ANCHOR
3" = 1'-0"



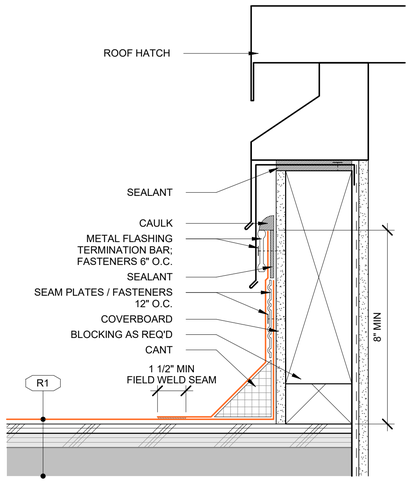
3 LOW-SLOPE ROOF @ MECHANICAL CURB
3" = 1'-0"



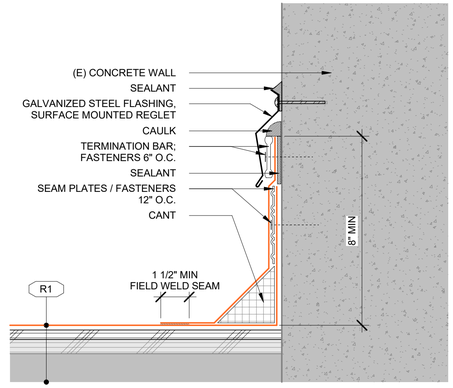
4 LOW-SLOPE ROOF @ PIPE PENETRATION
3" = 1'-0"



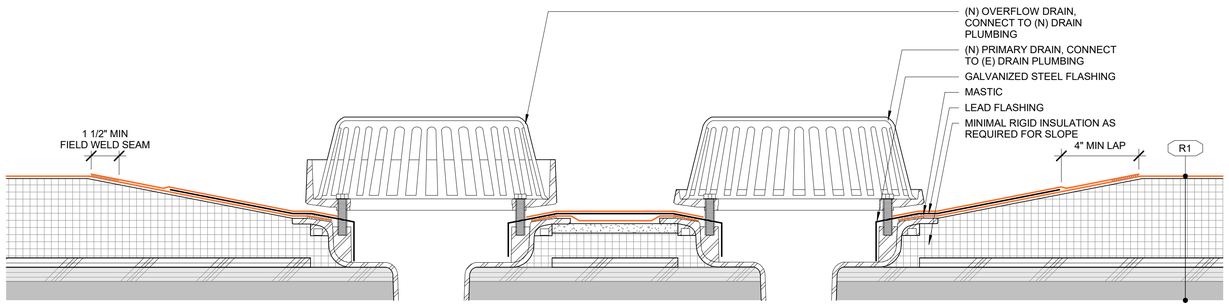
2 TILE ROOF RIDGE TO LOW-SLOPE ROOF TRANSITION
3" = 1'-0"



5 LOW-SLOPE ROOF @ ROOF HATCH
3" = 1'-0"



6 LOW-SLOPE ROOF TO (E) WALL TRANSITION
3" = 1'-0"



7 ROOF DRAIN PIPE PENETRATION
3" = 1'-0"

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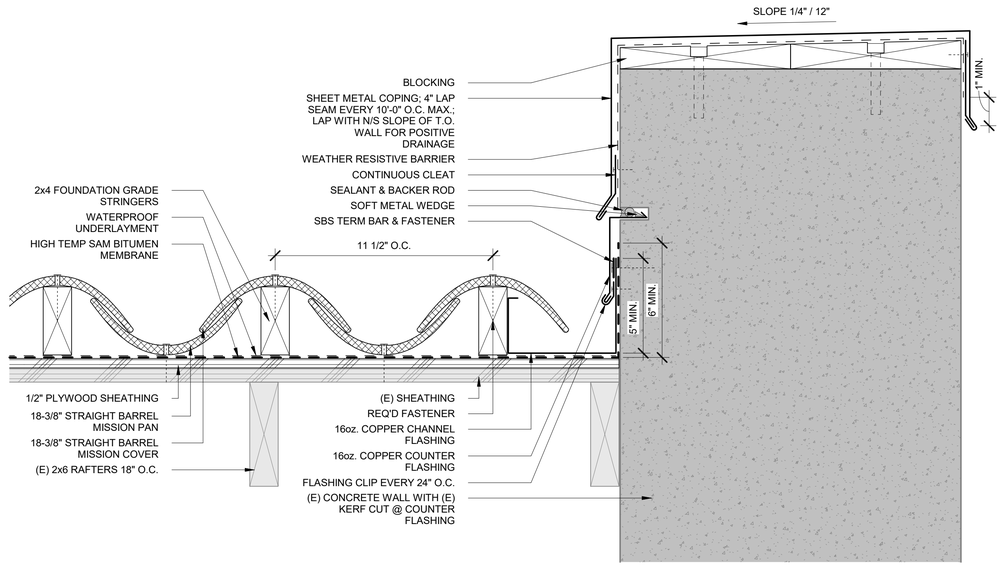
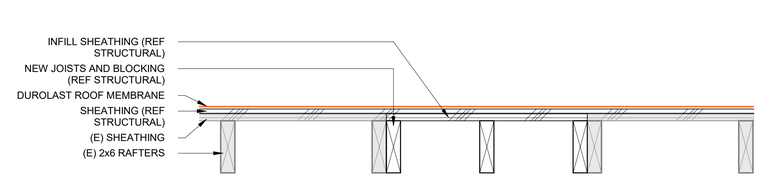
PROPOSED
ROOF DETAILS

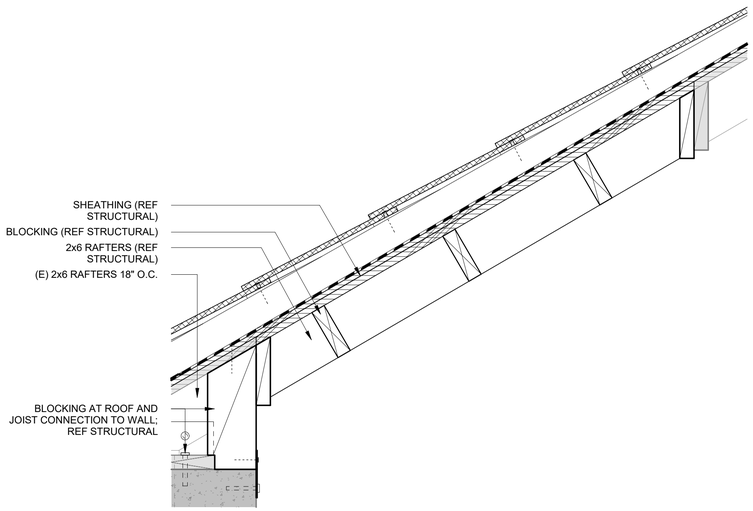
A4.32



1 SHEET METAL CAP @ (E) E/W END WALLS
3" = 1'-0"



2 LOW-SLOPE ROOF INFILL TYP.
1 1/2" = 1'-0"



3 TILE ROOF INFILL
1 1/2" = 1'-0"

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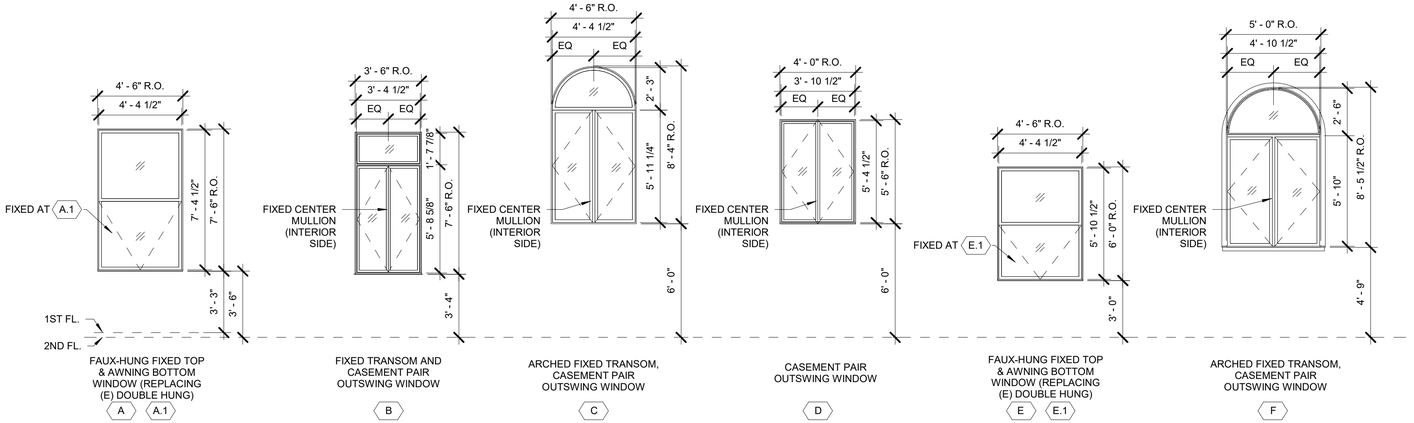
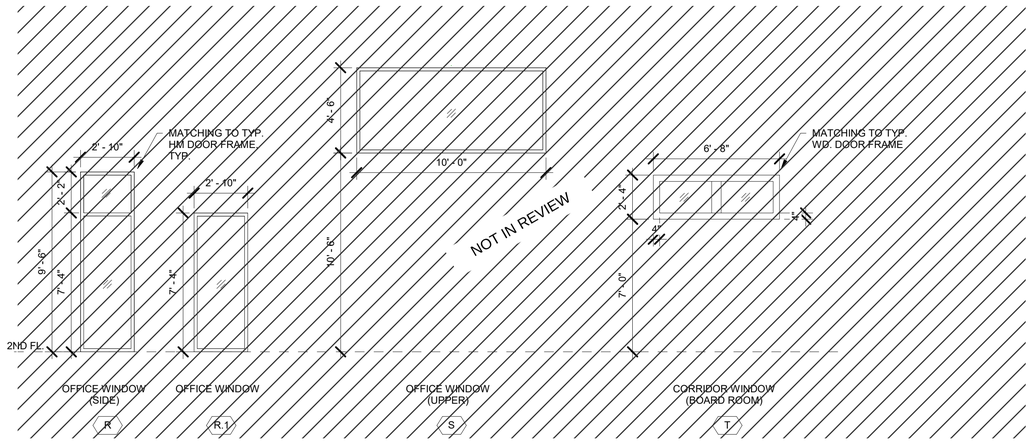
A4.33



LEGEND - WINDOW TYPES (EXTERIOR)

1/4" = 1'-0"



LEGEND - WINDOW TYPES (INTERIOR)

1/4" = 1'-0"

GENERAL NOTES - WINDOWS

A. FIELD VERIFY ALL EXISTING WINDOW ROUGH OPENINGS PRIOR TO MANUFACTURE.

B. PROVIDE SAFETY GLAZING AS REQUIRED BY CURRENT APPLICABLE BUILDING CODES.

C. NEW WINDOWS TO BE PAINTED, WITH CLEAR VISION IGU PER CURRENT ENERGY CODE, MATERIAL & PROFILES PER DETAILS.

D. EXTERIOR WINDOW VISIBLE HARDWARE FINISH TO BE OIL RUBBED BRONZE OR ANTIQUE BRASS, SPEC.S TBD

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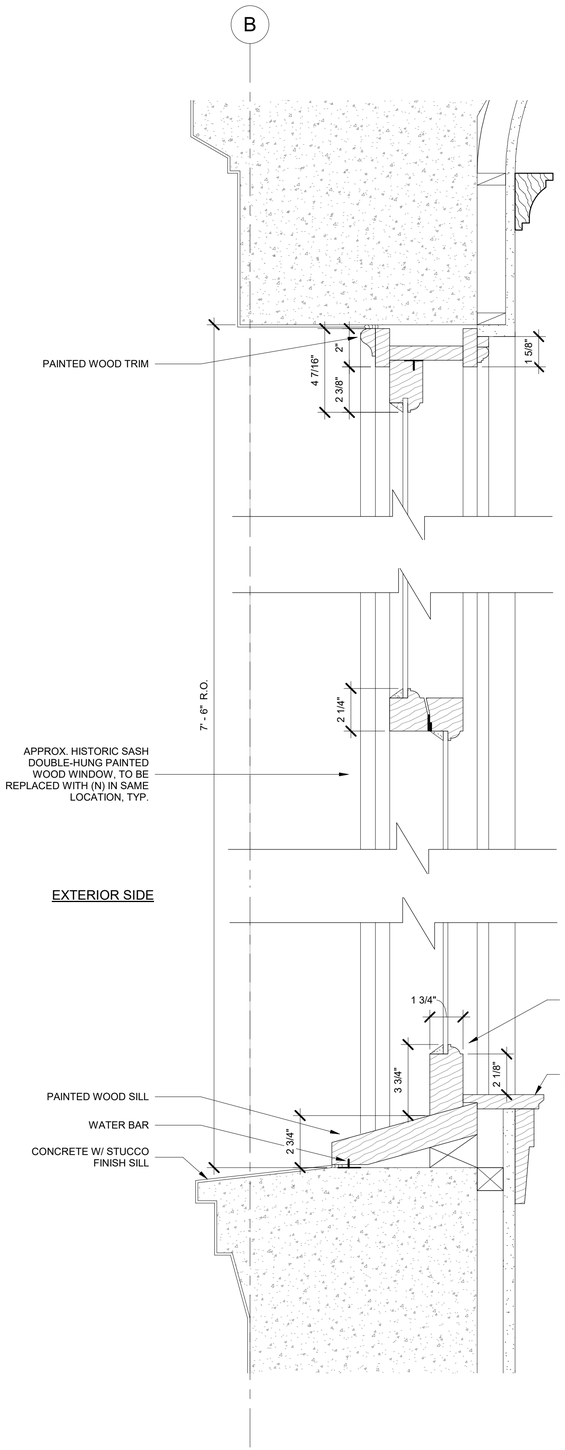
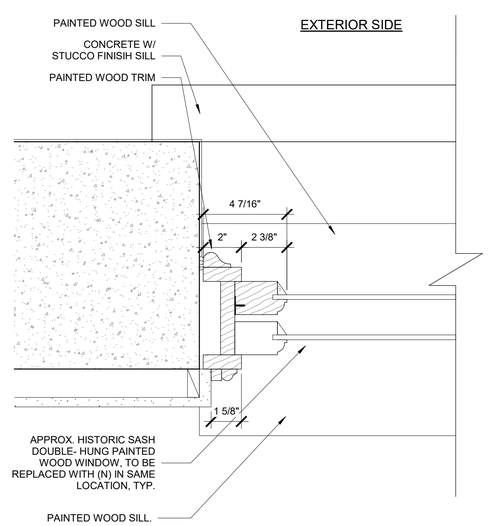
PROPOSED
WINDOW SCHEDULE

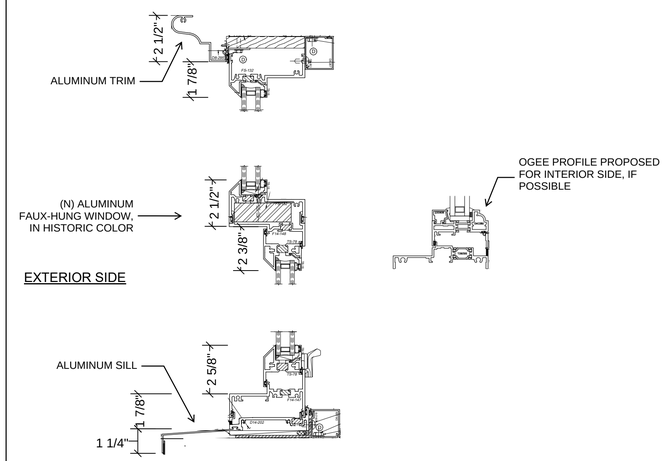
A7.00



1 TYPE A SECTION HEAD - SILL (HISTORIC)
3" = 1'-0"



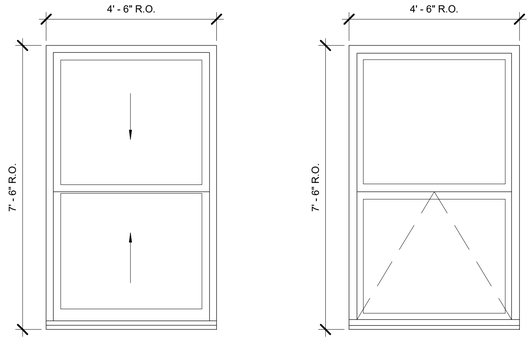
2 TYPE A SECTION JAMB (HISTORIC)
3" = 1'-0"



WINCO 1450S HUNG REPLICA PROFILE DETAILS
SCALE: 3" = 1'-0"

SEE A7.02 FOR INCORPORATED DETAILS

TYPE A SECTION HEAD - SILL
(PROPOSED)



HISTORIC ELEVATION
SCALE: 1/2" = 1'-0"

WINCO 1450S HUNG REPLICA ELEVATION PROPOSED
SCALE: 1/2" = 1'-0"

TYPE A ELEVATION
(PROPOSED COMPARED TO HISTORIC)

GENERAL NOTE:
TYPE 'A' IS OUR EXAMPLE SHOWING THE WINDOW STYLE IN DETAIL, OTHER TYPES FOLLOW SIMILAR PROFILE SYTLES AND DIMENSIONS

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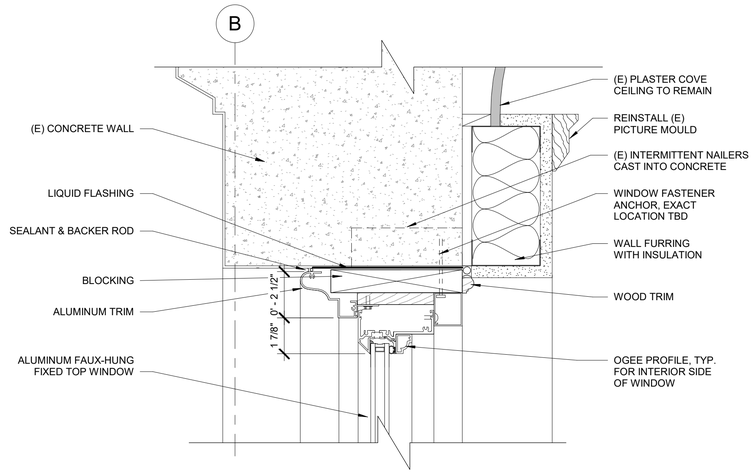
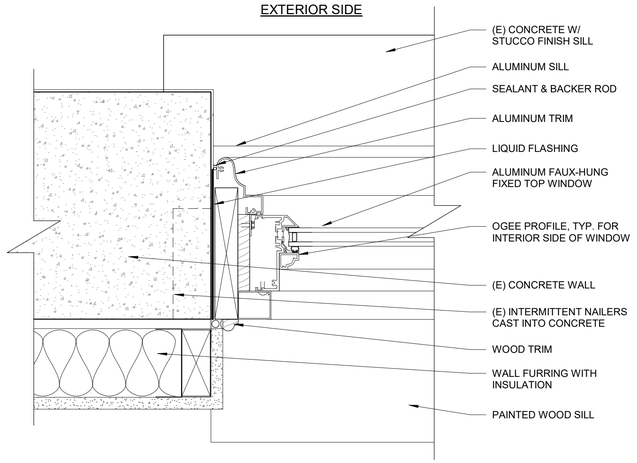
WINDOW DETAILS

A7.01



1 TYP. WINDOW HEAD DETAIL (TYPES A/E/G/K)
3" = 1'-0"

PROPOSED BASIS OF DESIGN

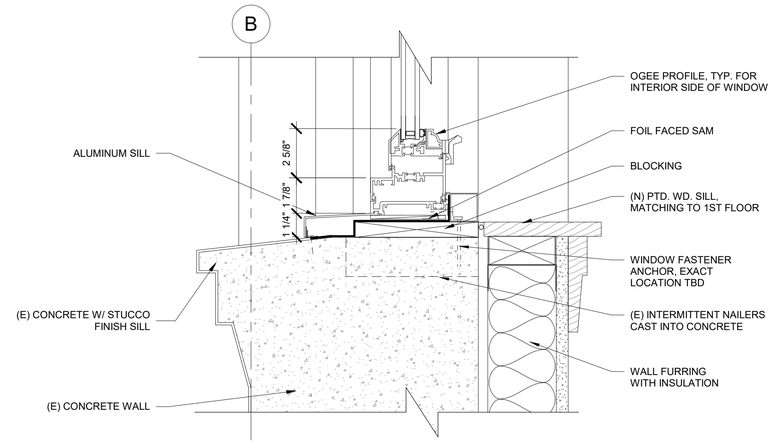


4 TYP. WINDOW JAMB DETAIL (TYPES A/E/G/J/K)
3" = 1'-0"

PROPOSED BASIS OF DESIGN

2 TYP. WINDOW CENTER RAIL DETAIL (TYPES A/E/G/K)
3" = 1'-0"

PROPOSED BASIS OF DESIGN



3 TYP. WINDOW SILL DETAIL (TYPES A/E/G/K)
3" = 1'-0"

PROPOSED BASIS OF DESIGN

waterleaf
architecture, interiors & planning
419 SW 11th Ave
Suite 200
Portland OR 97205
Ph: 503 228 7571
fx: 503 273 8891

EOU INLOW HALL PHASE II

LANDMARK'S REVIEW DRAWING SET

One University Boulevard
La Grande, Oregon 97850-2899

LANDMARK'S REVIEW DRAWING SET

PROJECT #: 2205.00

SHEET ISSUE DATE: MAY 5, 2023

REVISIONS:

#	DESCRIPTION	DATE

WINDOW DETAILS

A7.02

PRUNUS LAUROCERASUS 'CHESTNUT HILL CHERRY LAUREL
Z6-8
4' TALL & WIDE
PREVIOUS PLANS

INSTALL TEMPORARY FENCING
TO KEEP DEER FROM EATING
LAURELS. THIS FENCE WILL BE
REMOVED BY EOU ARBORIST
WHEN LAURELS REACH DESIRED HEIGHT.

170 SF
SOD

DO NOT ALTER OR DAMAGE THE SNOWMELT SYSTEM
IN ANY WAY THIS HATCH

GAULTHERIA P PROCUMBENS/WINTERGREEN
GROUND COVER
6-12" TALL X 24-36" WIDE

WALL SECTION
EXISTING

UP

UP

UP

UP

JUNIPERUS VIRGINIANA 'TAYLOR'
TAYLOR JUNIPER
30' TALL
X 3' WIDE

ADD SOIL TO IN LOW SPOTS

JUNPERUS COMMUNIS VAR. MONTANA/ MOUNTAIN
JUNIPER
3-6' TALL X
3-6' WIDE

EXISTING CONCRETE EDGING

GRAVEL MULCH
THIS HATCH
3-4' DEEP

CONCRETE MOW STRIP

INLOW
HALL

UP

DN

A A

A A

BENCH
EXISTING

BERBERIS THUNBERGII ORANGE ROCKET/
ORANGE ROCKET BARBERRY
4' TALL XY 3' WIDE

CALAMAGROSTIS ACUTIFLORA/KARL FOERSTER GRASS
4' TALL X 3' WIDE

SCHIZACHYRIUM SCOPARIUM/ CAROUSEL LITTLE BLUESTEM GRASS
2-3' T X 1-2' WIDE
BLUEGREEN WITH PINK FLOWER, COPPER, ORANGE, RED IN FALL

LAWN 2,860 SF

SIGN

SEDUM GROUND COVER

BENCH
EXISTING

PLANTING WINDOW:
PLANTS SHALL BE PLANTED BETWEEN APRIL AFTER 2 WEEKS OF TEMPERATURES UNDER 32 DEGREES FAHRENHEIT AND BEFORE OCTOBER 1ST.
DO NOT SUBSTITUTE PLANT SPECIES. PLANTS HAVE BEE SELECTED FOR THEIRS SIZE AT MATURITY, DURABILITY, DEER RESISTANCE, AND HISTORICAL PLANTING.

1 LANDSCAPE WEST - PROPOSED
1/8" = 1'-0"

waterleaf architecture, interiors & planning
419 SW 11th Ave
Suite 200
Portland OR 97205
Ph 503 228 7571
Fx 503 273 8691

DAPPLED EARTH
-DESIGNS TO NURTURE LIFE!
(541) 350-7436
P.O. Box 97
Powell Butte, OR 97753
DappledEarth.com

EOU INLOW HALL PHASE II
LANDMARK'S REVIEW
DRAWING SET

One University Boulevard
La Grande, Oregon 97850-2899

PRELIMINARY
381
Eileen D. Obermiller
OREGON
11/07/97
REGISTERED LANDSCAPE ARCHITECT

RENEWS 11/23

LANDMARKS
REVIEW
DRAWING SET

2205.00
MAY 5, 2023

REVISIONS:

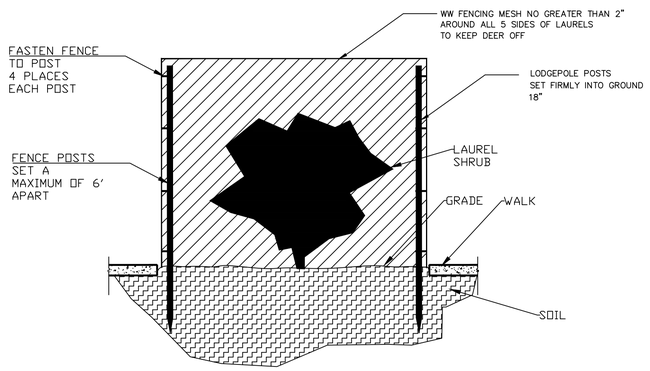
#	DESCRIPTION	DATE

LANDSCAPE

L1.A

PLANT LIST

SYMBOL	BOTANICAL NAME COMMON NAME	QTY.	SIZE @ PLANTING	TYPICAL MATURE SIZE
	BERBERIS THUNBERGII ORANGE ROCKET ORANGE ROCKET BARBERRY	8	MIN. 3' TALL	4' TALL X 3' WIDE
	CALAMAGROSTIS ACUTIFLORA KARL FOERSTER GRASS	6	1 GALLON	4' TALL X 3' WIDE
	GAULTHERIA PROCUMBENS WINTERGREEN	23	1 GALLON	6-12" TALL X 24-36" WIDE
	JUNPERUS COMMUNIS VAR. MONTANA MOUNTAIN JUNIPER	2	3 GALLON	3-6' TALL X 3-6' WIDE
	JUNIPERUS VIRGINIANA 'TAYLOR' TAYLOR JUNIPER	10	12' TALL	30' TALL X 3' WIDE
	PRUNUS LAURDCERASUS 'CHESTNUT HILL CHERRY LAUREL	18	3 GALLON	4' TALL & WIDE
	SCHIZACHYRIUM SCOPARIUM CARDUSEL LITTLE BLUESTEM GRASS	15	1 GALLON	2-3' T X 1-2' WIDE BLUEGREEN W/PINK FLOWER; COPPER, ORANGE, RED IN FALL
	SEDUM GROUND COVERS HARDY TO -20 DEGREES F	7	1 GALLON	6-12" TALL X 24-36" WIDE
	TALL TURF TYPE FESCUE	6,100 SF	SOD	
	EOU STONE MULCH 3-4" DEEP OVER LANDSCAPE FABRIC	2,000 SF	22 C YRDS	



SHRUB FENCING DETAIL
NTS

1 LANDSCAPE EAST - PLANTING EAST & PLANT LIST
1/8" = 1'-0"

waterleaf architecture, interiors & planning
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Portland OR 97205
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LANDSCAPE

L1.B

CASE STUDY

Grant High School

Portland, OR

WINCO Leads the Way in Historic School Renovations

New Windows Revitalize Portland's Grant High School Campus

Chalk it up to experience. Beautiful historic schools across the nation rely on WINCO Window Company to accurately replicate their windows with high performance frames and glazing for lasting durability.

Challenge

Such is the case with Portland's Grant High School. Built in 1923, the building was outdated, but too beautiful to replace. For the campus's overall modernization, the Portland Public School System elected to preserve historic portions of the original building, keep the auditorium intact, build a new gymnasium, and add a two-story common square for dining and community gathering. Preserving the historic architecture included a seismic and façade renovation, as well as new energy efficient windows from WINCO, designed to capture the look of the originals.

PROJECT DETAILS

Systems Provided

Series: 1450S
Historic Replica

Grant High School

Location
Portland, OR

Market
Education

Architect
Mahlum Architects

Glazing Contractor
Andersen Construction

General Contractor
Colas Construction, Inc.,

Aluminum Finish
Linetec

Project Number
170499

The Solution

WINCO's 1450S Projected/Casement Windows with a bone white finish and applied grids maintain Grant High's original sightlines and aesthetic. Laminated glass provides safety and security as well as acoustic control, energy efficiency, and protection of newly renovated interiors from damaging UV rays.

"We had a great system for the install," says Pete Benfit of Culver Glass Company. "And WINCO's windows went in very fast. The school district and contractor were very pleased."

Grant High School's classrooms were upgraded to meet today's technology standards. Mahlum Architects rebuilt interior learning spaces with a focus on indoor environmental quality, sustainability, and historic preservation. All of the renovations will ensure that Grant High School will serve students and faculty for many generations.

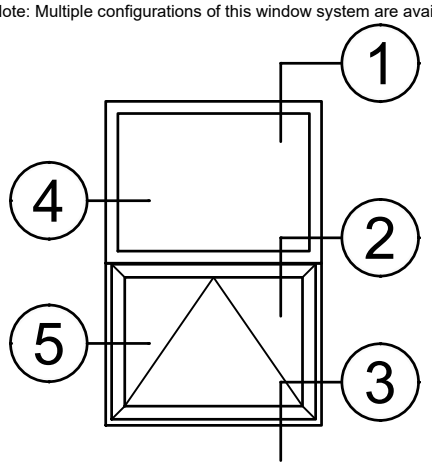
Take the walk through tour here

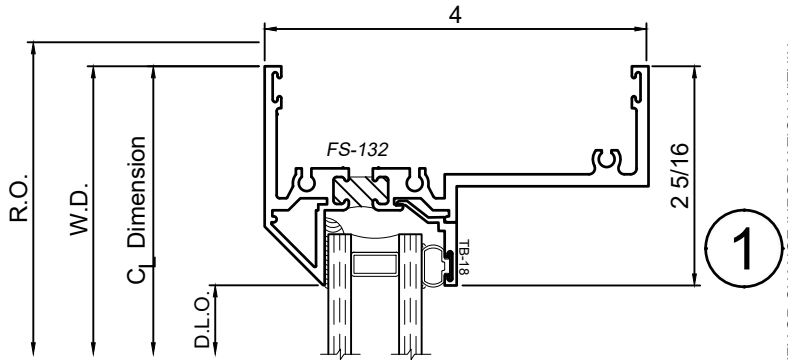
Courtesy of Jonah Harmon, Grant High School graduate

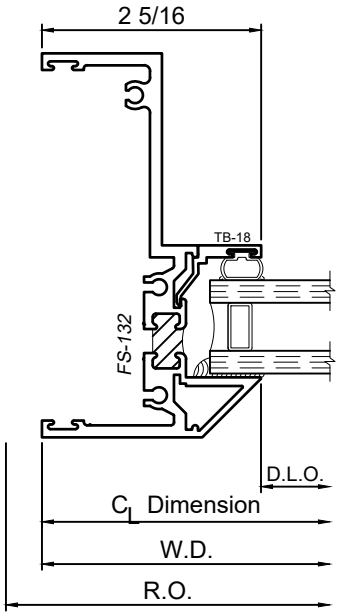
WINCO
WINDOW

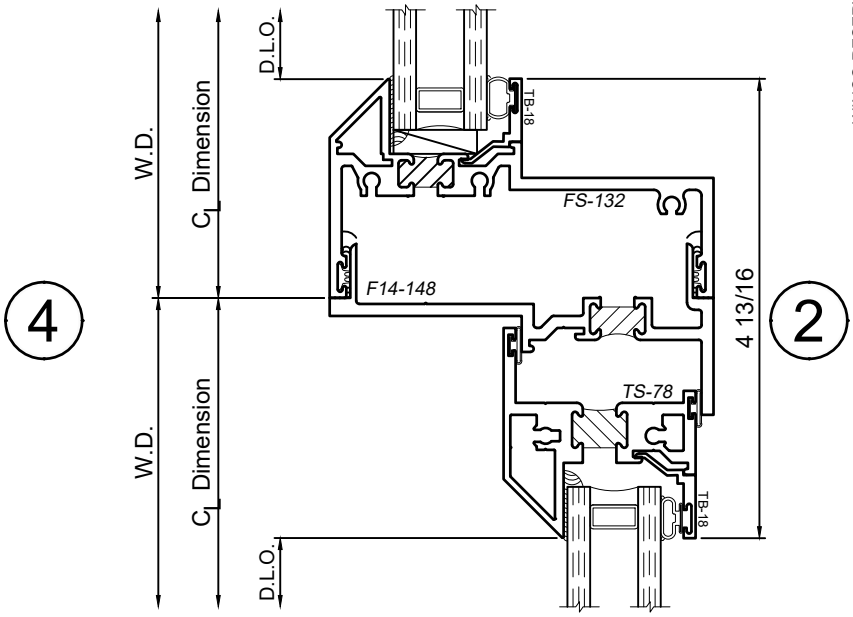
4" Thermal Hung Replica and Slider Replica Windows
Product Details - Fixed over PO [HR-6]

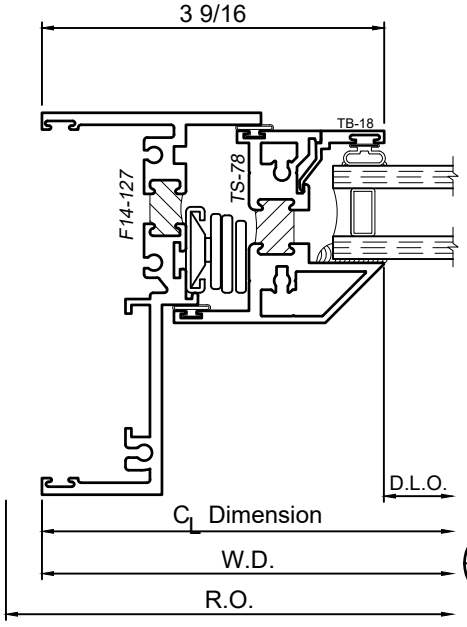
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

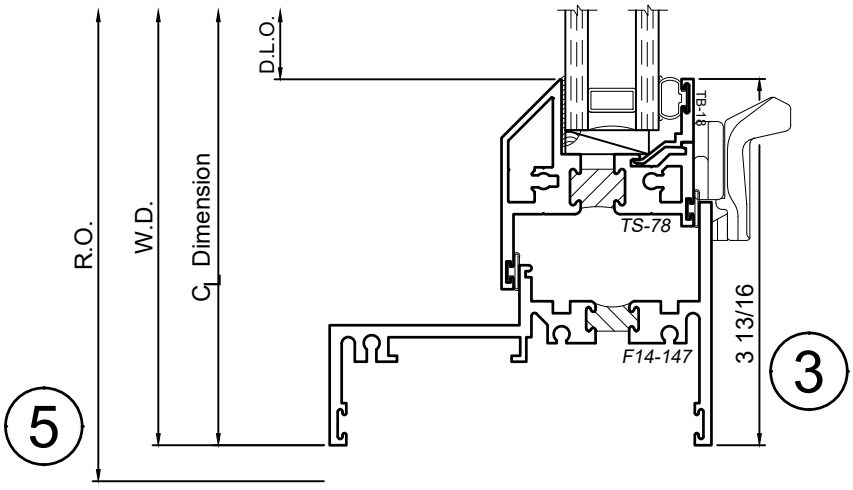












SCALE 6"=1'-0"