# ARCH-6570: PRESERVATION TECHNOLOGY

University of Utah College of Architecture + Planning
Professor Robert A Young, PE, FAPT, LEED ap Spring, 2011

## COURSE OUTLINE

### Description

This course provides the foundation for documenting, evaluating, and planning the rehabilitation and/or restoration of historic buildings by introducing the student to historic building materials and technologies; the Secretary of Interior's Standards for Historic Preservation; and general approaches to the rehabilitation of historic buildings. The domain of this course includes buildings built in the United States from the late-16th century through the mid-20th century.

### Objectives

The overall goal of this course is to teach the student how to develop the lifelong learning skills needed to communicate and interact with others that they will be in contact with in professional practice (e.g., architects, engineers, consultants, clients etc.) when working with rehabilitating or restoring older buildings. The objectives of this course are to teach the student to understand:

- the procedures for planning a rehabilitation project;
- the mechanics of producing an historic structures report;
- the role of the Secretary of Interior's Standards for Historic Preservation;
- the evolution of building technology in the United States from the late 16th century to the mid-20th century;
- the process of identifying, rehabilitating and/or maintaining materials commonly found in historic buildings;
- the technological development, use, and maintenance of building systems commonly found in historic buildings;
- the environmental safety issues related to the rehabilitation of buildings;
- the effect of codes on the operation and maintenance of historic properties;
- the resources available for preservation/rehabilitation planning activities;

### Teaching Philosophy

This course introduces materials to enable the student to begin the life-long learning process. Due to the scope of materials, the lectures are just the start of the learning process. This includes completing all reading tasks, investigating library and other resources, and consulting with the instructor. Completing the readings prior to lecture and asking questions in class are strongly encouraged. The process intent is to develop skills in analyzing, evaluating, and recognizing historic preservation technology solutions that are appropriate for compliance with the Secretary of the Interior Standards while meeting modern code and performance demands.

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## Organization

| | |
|---|---|
| Class Hours | 9:10-10:25 AM, Tuesday + Thursday, Room 229 AAC. |
| Office Hours | 10:30-11:30 AM, Room 240 AAC, MW or by appointment. |
| Telephone/Fax/Email<br>Website | (801)581-3909; (801)581-8217; young@arch.utah.edu<br>http://www.arch.utah.edu/young |
| Class Leadership & Participation | Punctuality and professionalism are traits valued by clients, employers, colleagues, and faculty. As such, students must be seated, ready to begin class activities at the scheduled start of class and be prepared to ask and answer questions. Pagers and cell phones must be turned off or set to non-audio mode during class time. Do not eat in class. Attendance is required and students are responsible for all in-class instructions. |
| Texts & Readings | Young, Robert A. 2008, *Historic Preservation Technology*. Hoboken, NJ: John Wiley & Sons.<br><br>Young, Robert. *SOTIS: Secretary of this Interiors Standards Courseware Module*. (HP-2: see Instructor's CA+P Web Site)<br><br>There are selected readings on reserve at Marriott Library and accessible from the internet. Refer to "Reserve Readings" section below. |
| Projects | Along with technical accuracy, all assignments will be graded on completeness, creativity, and presentation quality.<br><br>**Late Policy: All projects must be submitted by the start of class on the day they are due** or they are considered late. Late work will be penalized up to one letter grade (e.g., an "A" becomes a "B") for each calendar day or any part thereof that it is late.<br><br>**All late work must be turned in by 5:00 PM on April 29, 2011 to receive completion credit** even though it may be too late for a letter grade. |

Grading

Final grades will be based on the following division of credit:

| | |
|---|---|
| Research Paper | 30 pts |
| HSR Project Report/Presentation | 50 pts |
| Participation and Leadership | 20 pts |
| Total | 100 pts |

Grades will be based on the following performance levels:

A Excellent: performance is exceptional.
B Average: performance is at the expected level.
C Below Average: performance is below expected level.
D Unsatisfactory: performance is well below expected level.
E Unacceptable: performance is extremely below expectations.

Accessibility

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations.

All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

University Curriculum Administration Notes

Last day to drop (delete) classes: January 19, 2011
Last day to add classes: January 24, 2011

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## COURSE SCHEDULE[1]

| Date | Topic/Readings |
|---|---|
| January 11 | Introduction; Case Study: Falling Water |
| 13 | Accessibility/Safety {1}<br>HPT: Ch 1, 2, HP-2: Accessibility, Health and Safety. |
| 18 | Construction and Structural Systems {2}<br>HP-2: Structural Systems; HP-3. |
| 20 | Historic Structures Reports<br>HPT: Ch 3, HP-5(A-D), 6-8. |
| 25 | Case Study: G. H. Schettler House<br>HPT: Ch. 22, HP-2: Energy Conservation.<br>**HSR Team sign up Deadline** |
| 27 | **Site Visit—G. H. Schettler House, 217 B Street, SLC** |
| February 1 | Log & Timber{3}<br>HPT: Ch. 4 |
| 3 | Stone & Masonry {4}<br>HPT: Ch. 5, 6, HP-2: Masonry |
| 8 | Case Study: Inspection Methods |
| 10 | Architectural Metals {5}<br>HPT: Ch. 7, HP-2: Architectural Metals |
| 15 | Roofing and Cladding {6}<br>HPT: Ch. 8, 9, HP-2: Roof |
| 17 | Windows {7};<br>HPT: Ch. 10, HP-2: Windows |
| 22 | Building Exterior Elements and Site Features {8}<br>HPT: Ch. 11, 12, HP-2: Entrances and Porches; Storefronts |
| 24 | Interiors {9}<br>HPT: Ch. 13, 14; HP-2: Spaces, Features, and Finishes |
| March 1 | Art and Stained Glass {10}<br>Ch. 15<br>**HSR Project Status Report 1** |
| 3 | **Site Visit—Avenues visual analysis walking tour** |
| 8 | Wood Carving & Millwork {11} |

[1]The number within the brackets "{ }" refers to the lecture number on the website.

HPT: Ch. 16.
10 Ornamental and Flat Plaster {12}
Ch. 17

15 **Research Paper Presentations**
17 **Research Paper Presentations**
**Research Paper Due**

22 **Spring Break—No Class**
24 **Spring Break—No Class**

29 Paint and Faux Finishes {13}
HPT: Ch. 18
31 Heating, Cooling, and Ventilation {14}
HPT: Ch. 19, HP-2: Mechanical Systems

April 5 Lighting, Electrical, and Mechanical {15}
HPT: Ch. 20, 21, HP-2
7 Energy Conservation & Sustainability

12 **HSR Project Status Report 2**
14 HSR Project Release Time

19 HSR Project Release Time
21 HSR Project Release Time

26 **HSR Project Presentations**
28 **HSR Project Presentations**
**HSR Project Reports and Presentation Media Due**

## RESERVE READINGS

**Instructor's Website** http://www.arch.utah.edu/young

HP-1: ARCH-6570 Course Pack.

HP-2: SOTIS Courseware.

HP-3: Structural Seismic Evaluation Methods.

HP-5: Selected sections from *(A) Fure's Cabin/(B)The Mumma Barn/(C)Ryan Center/(D)Smith School House* Historic Structures Reports.

HP-8: Fischer Mansion HSR

**Internet Resources**

HP-4: Design Guidelines for Residential Buildings in Salt Lake City Historic Districts (see http://www/slcgov.com/ced/hlc/content/Design_guidelines_Book.asp).

HP-6: National Park Service Guidelines for Historic Structure Reports (viz. NPS-28: Chapter 8). (See http://www.cr.nps.gov/history/online_books/nps28chap8.htm).

HP-7: Preservation Brief #43 (see http://www.cr.nps.gov/hps/tps/briefs/presbhom.htm ).

## REFERENCES

Elliott, Cecil. *Technics and Architecture*. Cambridge MA: MIT Press 1993. (TH18.E45)

Freidman, Donald. *Historical Building Construction: Design, Materials, and Technology*. New York: W. W. Norton, 1995. (TH3361.F75)

Freidman, Donald, and Oppenheimer, Nathaniel. *The Design of Renovations*. New York: W. W. Norton, 1997. (TH3401.F75)

Jester, Thomas C. Twentieth Century Materials: History and COnsevration. New York: McGraw Hill, 1995.

Kahn, Renee, with Meagher, Ellen. *Preserving Porches*. Washington: Preservation Press, 1990. (NA8375.K34)

Kay, Gersil Newmark. *Mechanical & Electrical Systems for Historic Buildings*. New York: McGraw-Hill, 1992. (TH6021.K29)

London, Mark. *Respectful Rehabilitation: Masonry How to Care for Old and Historic Brick and Stone*. Washington: Preservation Press, 1988. (TH199.L66)

McKee, Harley J. *Introduction to Early American Masonry, Stone, Brick, Mortar, and Plaster*. Washington: Preservation Press, 1973. (TH1199.M2)

National Trust for Historic Preservation. *Old & New Architecture: Design Relationship*. Washington: Preservation Press, 1980. (NA2542.35.O42)

Nelson, Carl. *Protecting the Past from Natural Disasters*. Washington: Preservation Press, 1991. (TH441.N45)

New York Landmarks Conservancy. *Historic Building Facades: The Manual for Maintenance and Rehabilitation*. New York: John Wiley and Sons, 1997. (TH2235.H56)

_____. *Repairing Old and Historic Windows*. Washington: Preservation Press, 1992. (TH2275.R47)

Peters, Tom. *Building the Nineteenth Century*. Cambridge, MA: MIT Press, 1996. (TA19.P47)

Plumridge, Andrew, and Meulenkamp, Wim. *Brickwork*. New York: Harry Abrams, 1993. (TH1301.P55)

Shivers, Natalie. *Respectful Rehabilitation: Walls and Molding How to Care for Old and Historic Wood and Plaster*. Washington: Preservation Press, 1990. (TH2239.S45)

Simmons, H. Leslie. *The Architect's Remodeling, Renovation, & Restoration Handbook*. New York: Van Nostrand-Reinhold, 1989. (NA106.S57)

Simpson, Pamela H. Cheap, *Quick & Easy: Imitative Materials, 1870-1930*. Knoxville, TN: The University of Tennessee Press, 1999.

Technical Preservation Services [TPS]. *Interpreting the Secretary of the Interior's Standards for Rehabilitation, Volume II*. Washington: Government Printing Office, 1985. (DOC I29.2:R26/V.2)

U.S. Department of the Interior/National Park Service. *Preservation Briefs*. (see also: http://www.cr.nps.gov/hps/tps/briefs/presbhom.htm ).

I29.84:1 "The Cleaning and Waterproof Coating of Masonry Buildings"
I29.84:2 "Repointing Mortar Joints in Historic Brick Buildings"
I29.84:3 "Conserving Energy in Historic Buildings"
I29.84:4 "Roofing for Historic Buildings"
I29.84:5 "Preservation of Historic Adobe Buildings"
I29.84:6 "Dangers of Abrasive Cleaning to Historic Buildings"
I29.84:7 "The Preservation of Historic Glazed Architectural Terra-Cotta"
I29.84:8 "Aluminum and Vinyl Siding on Historic Buildings"
I29.84:9 "The Repair of Historic Wooden Windows"
I29.84:10 "Exterior Paint Problems on Historic Woodwork"
I29.84:11 "Rehabilitating Historic Storefronts"
I29.84:12 "The Preservation of Historic Pigmented Structural Glass"
I29.84:13 "The Repair and Thermal Upgrading of Historic Steel Windows"
I29.84:14 "New Exterior Additions to Historic Buildings: Preservation Concerns"
I29.84:15 "Preservation of Historic Concrete: Problems and General Approaches"
I29.84:16 "The Use of Substitute Exterior Materials on Historic Building Exteriors"
I29.84:17 "Architectural Character: Identifying the Visual Aspects ..."
I29.84:18 "Rehabilitating Interiors in Historic Buildings"
I29.84:19 "The Repair and Replacement of Historic Wooden Shingle Roofs"
I29.84:20 "The Preservation of Historic Barns"
I29.84:21 "Repairing Historic Flat Plaster—Walls and Ceilings"

I29.84:22 "The Preservation and Repair of Historic Stucco"
I29.84:23 "Preserving Historic Ornamental Plaster"
I29.84:24 "Heating, Ventilating, and Cooling Historic Buildings..."
I29.84:25 "The Preservation of Historic Signs"
I29.84:26 "The Preservation and Repair of Historic Log Buildings"
I29.84:27 "The Maintenance and Repair of Architectural Cast Iron"
I29.84:28 "Painting Historic Interiors"
I29.84:29 "The Repair, Replacement, and Maintenance of Historic Slate Roofs"
I29.84:30 "The Preservation and Repair of Historic Clay Tile Roofs"
I29.84:31 "Mothballing Historic Buildings"
I29.84:32 "Making Properties Accessible"
I29.84:33 "The Preservation and Repair of Historic Stained and Leaded Glass"
I29.84:34 "Applied Decoration for Historic Interiors Preserving Compo…"
I29.84:35 "Understanding Old Buildings: The Process of Architectural Inv…"
I29.84:36 "Protecting Cultural Landscapes"
I29.84:37 "Appropriate Methods for Reducing Lead-Paint Hazards…"
I29.84:38 "Removing Graffiti from Historic Masonry"
I29.84:39 "Holding the Line: Controlling Unwanted Moisture in Historic…"
I29.84:40 "Preserving Historic Ceramic Tile Floors"
I29.84:41 "The Seismic Retrofit of Historic Buildings"
I29.84:42 "The Maintenance, Repair, and Replacement of Historic Cast Stone"

U.S. Department of the Interior/National Park Service. *Preservation Tech Notes*.

I29.84/3:1 Temporary Protection Number 1 "Historic Stairways"
I29.84/3-2:1 Historic Interior Spaces Number 1 "Preserving Historic Corridors…"
I29.84/3-2:2 Historic Interior Spaces Number 2 "Preserving Historic Corridors…"
I29.84/3-3:1 Museum Storage Collection Number 1 "Museum Storage..."
I29.84/3: 9 Windows Number 9 "Interior Storm Windows: Magnetic Seal"
I29.84/3-4:11 Windows Number 11 "Installing Insulating Glass in Existing Wood…"
I29.84/3-4:12 Windows Number 12 "Aluminum Replacements for Steel Industrial…"
I29.84/3-4:13 Windows Number 13 "Aluminum Replacement Windows…"
I29.84/3-4:14 Windows Number 14 "Reinforcing Deteriorated Wooden Windows"
I29.84/3-4:15 Windows Number 15 "Interior Storms for Steel Casement Windows"
I29.84/3-4:16 Windows Number 16 "Repairing and Upgrading ...Wooden Mill…"
I29.84/3-4:17 Windows Number 17 "Repair and Retrofitting Industrial Steel…"
I29.84/3-4:18 Windows Number 18 "Aluminum Replacement Windows W/True…"
I29.84/3-6:1 Exterior Woodwork Number 1 "Proper Painting and Surface Prep…"
I29.84/3-6: 3 Exterior Woodwork Number 3 "Log Crown Repair and Selective…"
I29.84/3-7:1 Masonry Number 1 "Substitute Materials: Replacing...Serpentine…"
I29.84/3-7:2 Masonry Number 2 "Stabilization and Repair of…Terra-Cotta…"
I29.84/3-7:3 Masonry Number 3 "Water Soak Cleaning of Limestone"
I29.84/3-8: 1 Metals Number 1 "Conserving Outdoor Bronze Sculpture"
I29.84/3-8: 2 Metals Number 2 "Restoring Metal Roof Cornices"
I29.84/3-8:3 Metals Number 3 "In-Kind Replacement of...Stamped Metal…"
I29.84/3-9:1 Mechanical Systems Number 1"Replicating Historic Elevator…"
I29.84/3-11:1 Site Number 1 "Restoring Vine Coverage to Historic Buildings"

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## RESEARCH PAPER

### Introduction

Historic preservation technology encompasses a diverse range of materials, evaluation processes, and analytical methods that result in the optimization of performance of existing buildings. Students will develop a case study based on an overall theme of building analysis and assessment.

### Objectives

- To explore historic preservation technology as it affects contemporary practice.
- To encourage development of student research skills.
- To encourage development of student oral presentation skills.
- To encourage development of student writing skills.

### Case Study Paper

The paper will be a case study of historic preservation technology drawn from the list of possible topics is given below:

- Non-destructive testing/non-destructive evaluation
- Architectural forensics/ building failures
- Architectural materials of the late-20th century
- Sustainability interventions
- Measurement, recording, and documentation processes
- Performance standards (LEED, Energy Star, BREEAM)
- Sustainability metrics (LCA, embodied energy, embodied carbon)

### Products

Paper: Based on their research findings, students will prepare a 3000 word paper (approximately 12, 8 ½" x 11" pages of double spaced text, 12 point font with 1" margins). Graphics should be integrated within the text to highlight key points. Graphics will not be included in the page count. All graphics or images not originally developed by the students must be given proper bibliographic credit. All graphics and images must be called out in the text and have captions. Students should use the *Chicago Manual of Style* as the basis of their writing. All assertions and conclusions should be based on existing factual evidence and not just opinion or conjecture.

In writing the paper, keep the following criteria in mind:

1. ***Proofread*** manually. Spellchecker is not a proofreader.
2. Use ***only*** third person voice (e.g., he, she, they).
3. ***Avoid contractions*** (e.g., "do not" instead of "don't").

4. Use ***headings*** to delineate major areas of the paper (e.g., introduction of research question or issues, case studies, discussion, and conclusion).
5. Include ***captioned*** graphics (e.g., "Figure 1: Front façade of XYZ building") within the body of the text for visual interest and to clarify a point of discussion. ***Call out*** figures in text (e.g., "see Figure 1").
6. ***Cite sources*** of images and quotes. Lack of proper citation is considered plagiarism and will be dealt with accordingly.
7. ***Include a bibliography*** at the end (note: the text for this is not included in the word count).
8. ***Use appendices*** where appropriate to maintain flow within the main body of the paper. Use call outs (e.g., "see Appendix A") where appropriate.

Presentation: Students will make an oral presentation to convey an overview of the case study including the major findings and expected trends implied within the particular case study being presented. The length of the presentation time will be determined once the class size has been finalized. Audio-visual aids (e.g. computer/ projection equipment) will be the responsibility of the student.

The paper is due on the date shown on the syllabus. The students will submit one printed copy of the paper and a pc-compatible CD-ROM that includes the paper (in a .DOC formatted file); the presentation (in a .ppt formatted file); and subfolders containing all digital materials used in the preparation of the paper.

# HISTORIC STRUCTURES REPORT

### Introduction

Historic Structures Reports (HSR) are used to document existing conditions of an historic resource (e.g., buildings and structures) and provide the initial materials for planning any rehabilitation work on that historic resource. This project is designed to familiarize the student with developing a typical HSR.

### Objective

To document the existing conditions of a historic resource and to develop a prioritized list of recommendations for the future use, rehabilitation, and maintenance of that resource.

### Method

When projects are not available from the instructor, a project may be completed in teams of three to five people, as needed, based on the complexity of the building being evaluated. Potential buildings include small to medium-sized, detached, single-family residential buildings, small commercial buildings, or large outbuildings (e.g., a barn). Each team will identify and work on a building. At least one team member must have a personal connection to the property owner (e.g., family, friend, employer, etc.). Obtaining permission for access to property and the building interior is the responsibility of the student team. Access is a critical aspect of this project since interior conditions must be available for assessment and documentation of conditions. Permission to proceed on any building must be obtained from the instructor.

Develop a history and trace the ownership and usage of the building.

Document the existing condition of the historic resource. Prepare sketches of floor plans and photograph all significant features and problems (use electronic images for report).

Develop a chronologic renovation history. Determine when alterations were made to the building (levels of expertise will vary in this area but give it your best shot). This may be substantiated by archival research off-site.

Evaluate overall conditions and list prioritized actions for future use, rehabilitation, and maintenance of the building. The premise of this project will be to proceed as though a rehabilitation of the existing resource is the final goal.

Compile into a report (format to be discussed in class).

Prepare a 20-30 minute audio-visual presentation for the class. The presentation should illustrate the major aspects of the final HSR as submitted for grading. The presentation should include visual images that show historic background

information as well as the existing overall building, its interior spaces, its most significant features and its most significant problems.

**Limitations**

There is to be no physical damage (scraping, sanding, etc.) done during the building inspection without prior specific written permission of the owner.

Students are responsible for their own safety during the inspection. Any student injuries or damage to the subject properties incurred during site investigation work must be reported to the instructor or to the College of Architecture + Planning as soon as it is safe to do so such that an incident report can be filed.

**Evaluation**

Since this is a semester long project, work will be ongoing throughout the semester. Teams will meet with the instructor as noted on the syllabus to ensure steady progress on the project. The status reports will include the following information:

- Status Report 1: Team roster, confirmation of building selection, a summary of preliminary research on building ownership and usage history (an actual draft may be submitted for critique).
- Status Report 2: Update from earlier status report; preliminary floor plans and elevations; typical photographs; a summary of chronologic renovation history (an actual draft may be submitted for critique); preliminary assessment of building problems and specific primary areas of concern; prioritization of overall concerns.

Teams will provide examples (both oral and written) of their progress. The status reports will be used to assess steady progress towards completing the HSR that will be considered in the final grade for the project. The ongoing work on the HSR throughout the semester will minimize time conflicts typically present at the end to the semester.

The oral presentation and submitted HSR will be evaluated as shown on the grading form included later in this syllabus.

**Products**

Submit 2 color originals (8-1/2” x 11”) of the final bound report to the instructor. The instructor will keep one and give the second to the property owner. An additional black & white copy may be submitted if the team wants to receive a commented copy back from the instructor.

Students will make an oral presentation of their findings to the class. The team must also turn in a copy of the disk(s) used to generate the written report and the digital file of the final presentation media on a CD.

**Disclaimer**

Include the following disclaimer at the beginning of the report:

> Disclaimer
>
> This report was written in partial fulfillment of the course requirements for ARCH-6570 "Preservation Technology" offered by the University of Utah College of Architecture + Planning. This report is part of an academic exercise intended to provide the student with a "hands on" experience in historic preservation planning. ***The building owner is advised that the recommendations proposed in this report must be validated as "appropriate" by a licensed architect, licensed engineer, or other accredited personnel prior their implementation.***
>
> In all cases the University of Utah, the College of Architecture + Planning, the personnel associated with the administration of this course, and the report author(s) shall be held harmless in any action concerning damage to the subject property and/or improvements as well as injuries to occupants based on the implementation of any portion of the material content of this report.

# HISTORIC STRUCTURES REPORT OVERVIEW

## Introduction

Historic Structures Reports (HSR) document existing conditions of an historic resource and provide recommendations for planning any restoration or alteration work on an historic resource. The formal requirements are explicitly defined in the *Cultural Resource Management Guideline* and *Preservation Brief 43* (Reserve Readings HP-6 & HP-7). Due to time constraints in completing this course, the project format will include an abbreviated version of the information commonly found in an HSR used by the U.S. Department of the Interior. An HSR typically includes the following:

The *Introduction* is a concise account of research done to produce the HSR, major research findings, major issues identified, and recommendations for treatment and use. Administrative data on the structure also are included.

*Part 1, Developmental History*, is a scholarly report documenting the evolution of a historic structure, its current condition, and the causes of its deterioration. It is based on documentary research and physical examination. The scope of documentary research may extend beyond the physical development of the structure if needed to clarify the significance of the resource or to refine contextual associations; however, major historical investigation of contextual themes or background information should be conducted as part of a separate historic resource study.

*Part 2, Treatment and Work Recommendation,* presents and evaluates alternative uses and treatments for a historic structure. Emphasis is on preserving extant historic material and resolving conflicts that might result from a structure's "ultimate treatment." Part 2 concludes by recommending a treatment and use responding to objectives identified by property owner. In most cases, design work does not go beyond schematics.

*Notes, Bibliography, and Appendices* include the endnotes, bibliographic information (annotated, if possible), lists of information sources (e.g., archives, photograph collections), and appendices (e.g., figures, tables, drawings, reference documents, material analysis reports).

*Supplements Record of Work Performed* (also known as *"Part 3"*)* is a compilation of information documenting actual treatment. It includes accounting data, photographs, sketches, and narratives outlining the course of work, conditions encountered, and materials used.

* Not required for this project.

All aspects of a historic structure and its immediate grounds should be addressed in the HSR. Potential overlaps with other cultural resource types and natural resource issues should be identified, and applicable studies and reports should be called for or referenced. An HSR and analogous reports (e.g., a cultural landscape report) may be combined to address multiple resource types at a single property or area.

### HSR Format and Contents

This outline (as adapted from Preservation Brief 43) is to be used in developing the HSR for ARCH-6570 with suggested content given below headings:

COVER PAGE
DISCLAIMER
TABLE OF CONTENTS
INTRODUCTION
- Study Summary
  - A. Research done to produce the HSR
  - B. Major research findings
  - C. Major issues identified
  - D. Recommendations for treatment or use
- Project Data
  - A. General location information to identify building and property owner
    - Indicate property address, vicinity map, contact person (address/telephone number), and other tracking information.
  - B. Proposed treatment of the property
    - Describe general or specific intentions for future use (Note: for ARCH-6570, this will be a rehabilitation treatment).
  - C. Cultural resource data
    - Provide National Register of Historic Places or Utah Statewide inventory listing date, period of significance, and context of significance.
  - D. Related studies
    - List/describe published or unpublished works describing property and/or it history.

PART 1 DEVELOPMENTAL HISTORY
- A. Historical Background and Context
  - Describe a brief history of the building and its context and identify designers, builders, and persons associated with its history.
- B. Chronology of Development and Use
  - Describe the original construction, modifications, and uses based on historical documentation and physical evidence.
- C. Physical Description

- Provide systematic accounting of all elements, materials, and spaces, including significant and non-significant features of the building.

D. Evaluation of Significance
- Discuss the significant features, original and non-original materials and elements, and identification of periods of significance (if there is more than one)

E. Condition Assessment
- Discuss the condition of the building materials, elements, and systems and the causes of their deterioration.

PART 2 TREATMENT AND WORK RECOMMENDATIONS

A. Historic Preservation Objectives
- Provide narrative discussion and analysis of the recommended treatment (preservation, rehabilitation, restoration, or reconstruction) and how it meets the overall goals of the project.

B. Requirements for work
- Provide concise outline of laws, regulations, and functional requirements affecting proposed treatments and pay specific attention to human safety, fire protection, energy conservation, hazardous material abatement, and handicapped accessibility.

C. Alternatives for treatment
- Present and evaluate alternative approaches to the realization of the ultimate treatment in both text and graphic form.
- Conclude with commentary on the appropriateness of recommended course of action and specific recommendations for preservation treatments.

APPENDIX

A. Bibliography
B. Floor Plans/Drawings (if not already included in main body of report)
C. Photographs (if not already included in main body of report)
D. Materials Analysis (if applicable)
E. Other

**General Comments**

All figures/images should be labeled with captions and called out in the text. Captions should include source data or be footnoted. Check spelling. All text should be proof-read. All pages should be numbered. Font and format should be consistent throughout. All references used should be listed in the bibliography whether or not they were cited in the text. Use footnotes, endnotes, and bibliographic citations in accordance with *Chicago Manual of Style*.

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## HISTORIC STRUCTURE REPORT GRADING FORM

Name(s): _____

Project: _____

Scope of Work Performed (comprehensiveness of research/technical accuracy):

Thoroughness of physical research on site. _____
Thoroughness of archival research. _____
Technical comprehension and accuracy. _____

Completeness (meeting minimum project requirements):

Representative of appropriate level of work. _____
Description of occupancy record and physical chronology. _____
Description of existing physical conditions. _____
Description and appropriateness of recommendations. _____

Overall Format (writing quality):

Adherence to accepted research documentation practices. _____
Inclusion and organization of text and graphic materials. _____

Oral Presentation (verbal content and presentation):

Presentation/organization of materials. _____
Technical comprehension and accuracy. _____

Overall Grade: _____

Digital Media: ____

Comments:

## BUILDING INSPECTION

REVIEW ANY EXISTING FLOOR PLANS FIRST.
PHOTOGRAPH OVERALL VIEWS OF BUILDING, FACADES, SPACES.
PHOTOGRAPH UNIQUE FEATURES AND PROBLEMS.
WRITE DOWN ALL FINDINGS.

1. Look at building exterior in general
   - note sagging structural elements/confirm source
   - note general level of repair or missing features
   - identify significant changes
2. Check roof condition
   - note sagging
   - note missing/damaged materials.
3. Enter building and go to lowest level (basement/crawl space)
   - check for structural problems/confirm source
   - check for water problems/confirm source
   - check for signs of alterations.
4. Go to highest level (attic/crawl space)
   - check for structural problems/confirm source
   - check for water problems/confirm source
   - check for signs of alterations.
5. Proceed room by room through building
   - define floor plan on sketch if not already done
   - identify problems and sources (try all fixtures and hardware)
   - identify historic features (doors, windows, floors, lighting, etc.)
   - identify alterations (material uniformity, "peek and poke behind and around")
   - note all findings on a form for each space
   - trace continuity of defects.
6. Return outside and proceed to each facade
   - identify problems and sources (try all fixtures and hardware)
   - identify historic features (doors, windows, coal chutes, lighting, etc.)
   - identify alterations (material uniformity, "peek and poke behind and around")
   - note all findings on a form for each facade
   - trace continuity of defects.
7. Repeat 1-6 for each building on the property.
8. Walk the site along perimeter and then explore site
   - sketch site plan/identify site features
   - locate and note overgrown elements or suspicious landscaping
9. Look at how neighboring buildings are similar or different
10. Compile overall summary of impressions about building/site/setting.