Final Environmental Impact Assessment Addendum

Lathrop Drive/Bascom Hill Utility Improvements – Phase 1

University of Wisconsin - Madison
550 North Park Street
Madison, WI 53706

Prepared for:

University of Wisconsin - Madison
Facilities Planning & Management
30 N. Mills Street, 4th Floor
Madison, WI 53715-1211

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University of Wisconsin - Madison
550 North Park Street
Madison, WI 53706

This report prepared by:

Emily Thompson
Environmental Scientist

Keely Campbell, PG
Geologist

This report reviewed by:

Ben Peotter, PE
Project Manager
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>General</td>
<td>3</td>
</tr>
<tr>
<td>Project Description</td>
<td>3</td>
</tr>
<tr>
<td>EIA Process</td>
<td>3</td>
</tr>
<tr>
<td>Scoping Letter</td>
<td>3</td>
</tr>
<tr>
<td>Draft EIA Addendum</td>
<td>3</td>
</tr>
<tr>
<td><strong>I. Description of Proposed Action</strong></td>
<td>5</td>
</tr>
<tr>
<td>A. Title of Proposed Project</td>
<td>5</td>
</tr>
<tr>
<td>B. Project Location</td>
<td>5</td>
</tr>
<tr>
<td>C. Project</td>
<td>5</td>
</tr>
<tr>
<td>General Project Description</td>
<td>5</td>
</tr>
<tr>
<td>Purpose and Need (Objective, History, and Background)</td>
<td>6</td>
</tr>
<tr>
<td>D. Estimated Cost and Funding Source</td>
<td>6</td>
</tr>
<tr>
<td>E. Project Schedule</td>
<td>7</td>
</tr>
<tr>
<td><strong>II. Existing Environment</strong></td>
<td>8</td>
</tr>
<tr>
<td>A. Physical</td>
<td>8</td>
</tr>
<tr>
<td>Soils and Topography</td>
<td>8</td>
</tr>
<tr>
<td>Utilities</td>
<td>8</td>
</tr>
<tr>
<td>Surface Water and Groundwater</td>
<td>8</td>
</tr>
<tr>
<td>Wetlands and Flood Plains</td>
<td>8</td>
</tr>
<tr>
<td>Air</td>
<td>8</td>
</tr>
<tr>
<td>B. Biological</td>
<td>8</td>
</tr>
<tr>
<td>C. Social</td>
<td>9</td>
</tr>
<tr>
<td>D. Economic</td>
<td>10</td>
</tr>
<tr>
<td>E. Other (Hazardous Materials, Archaeological, Historical, etc.)</td>
<td>10</td>
</tr>
<tr>
<td>DATCP Registered Tanks</td>
<td>10</td>
</tr>
<tr>
<td>EPA Database Search</td>
<td>10</td>
</tr>
<tr>
<td>BRRTS</td>
<td>10</td>
</tr>
<tr>
<td>SHWIMS</td>
<td>11</td>
</tr>
<tr>
<td>Archaeological and Historical</td>
<td>11</td>
</tr>
<tr>
<td>F. Parking and Transportation</td>
<td>13</td>
</tr>
</tbody>
</table>
III. Proposed Environmental Change

A. Manipulation of Terrestrial Resources
   - Surface and Subsurface Manipulation

B. Manipulation of Aquatic Resources

C. Structures

D. Other
   - Asbestos and Hazardous Materials
   - Utilities
   - Noise
   - Traffic and Parking
   - Erosion Control
   - Visual

IV. Probable Adverse and Beneficial Impacts

A. Physical Impacts

B. Biological Impacts

C. Socioeconomic Impacts

D. Other (Archaeological, Historical, etc.)
   - Energy and Utilities
   - Archeological and Historical
   - Hazardous Materials

V. Probable Adverse Impacts That Cannot Be Avoided

VI. Relationship between Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity

VII. Irreversible or Irretrievable Commitments of Resources if Action is Implemented

A. Energy

B. Archaeological and Historic Features or Sites

C. Financial

VIII. Alternatives

IX. Evaluation

X. List of Agencies, Groups, and Individuals Contacted Regarding this Project

XI. Recommendation

XII. References
List of Attachments

Attachment 1 – Site Maps and Additional Information
Attachment 2 – Site Photos
Attachment 3 – Site Plans
Attachment 4 – HIST-A
Attachment 5 – Legal Notice and Publication Affidavit
Acronyms and Abbreviations

ACM  Asbestos Containing Materials
AHI  Architecture and History Inventory
ARI  Archaeological Report Inventory
ASI  Archaeological Sites Inventory
AST  Aboveground storage tank
AWT  Average Weekday Traffic
BbA  Bativa silt loam
BRRTS Bureau of Remediation and Redevelopment Tracking System
CERCLIS Comprehensive Environmental Response, Compensation, and Liability Information System
CLEAN Contaminated Lands Environmental Action Network
CSHP Charter Street Heating Plant
DATCP Department of Agriculture, Trade and Consumer Protection
DFD Division of Facilities Development
DnB Dodge silt loam
DOA Wisconsin Department of Administration
EIA Environmental Impact Assessment
EPA Environmental Protection Agency
ERP Environmental Repair
ERR Endangered Resources Review
FEMA Federal Emergency Management Agency
FTE Full-Time Equivalent
LF Linear Feet
LUST Leaking Underground Storage Tank
MSL Mean Sea Level
NAAQS National Ambient Air Quality Standards
NR National Registry
OSHA Occupational Health and Safety Administration
PAH Polycyclic Aromatic Hydrocarbons
RCL Residual Contaminant Level
RR Remediation and Redevelopment
SHWIMS Solid and Hazardous Waste Information System
UST Underground storage tank
UW University of Wisconsin
UW-Madison University of Wisconsin-Madison
UWSA University of Wisconsin System Administration
WCCF West Campus Cogeneration Facility
WDNR Wisconsin Department of Natural Resources
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEPA</td>
<td>Wisconsin Environmental Policy Act</td>
</tr>
<tr>
<td>WHPD</td>
<td>Wisconsin Historical Preservation Database</td>
</tr>
<tr>
<td>WPDES</td>
<td>Wisconsin Pollutant Discharge Elimination System</td>
</tr>
<tr>
<td>WSHP</td>
<td>Walnut Street Heating Plant</td>
</tr>
</tbody>
</table>
Introduction

General

The University of Wisconsin – Madison (UW-Madison) Facilities Planning and Management has retained Ayres Associates on behalf of the University of Wisconsin System Administration (UWSA) to prepare an Environmental Impact Assessment (EIA) addendum for Phase 1 of the proposed improvement of thermal utilities at UW-Madison along Science Hall in Madison, WI. This EIA addendum outlines additional scope items and their impacts and is prepared in accordance with the Wisconsin Environmental Policy Act (WEPA), Wisconsin Statutes 1.11, and UWSA guidelines (Board of Regents’ Resolution 2508, November 6, 1981). The purpose of the EIA addendum is to assess potential impacts of the additional project elements on the physical, biological, social, and economic environments surrounding Science Hall. The original EIA was published in June of 2019 and outlined potential impacts related to the replacement and/or relocation of thermal, electrical, and civil utilities in the Bascom Hill area of the UW-Madison campus.

Project Description

The additional project work described in this addendum proposes to construct a new steam tunnel around the south and east side of Science Hall, located in the Bascom Hill Area of the UW-Madison campus. Attachment 1 provides associated figures describing this project scope and limits of construction.

Upon completion of the utility system, all areas disturbed by the project will be fully restored, including roadways, gutters, sidewalks, landscaping features, and site structures.

Work for design and construction of the addendum scope is included in the original project budget. The project was enumerated in the 2017-19 UW System and State of Wisconsin capital budget with an authorized budget of $32,656,000, related to the thermal, civil and electrical distribution systems by replacing, upsizing and adding the necessary infrastructure to complete the utility transmissions. Total budget costs are estimated to be $32,656,000. $23,839,000 of funding will be sourced from General Fund Supported Borrowing and $8,817,000 will be sourced from Program Revenue Supported Borrowing. Phase 1 of the project is estimated at a total cost of $20,076,000.

EIA Process

Scoping Letter

A Scoping Letter to solicit input on potential environmental impacts of the project was not needed for the addendum work. A scoping letter for the original EIA was sent to selected parties and agencies on November 7, 2018. Please refer to Appendix A in the original EIA document to view the Scoping letter, responses, and distribution list of recipients.

Draft EIA Addendum

The Draft EIA addendum was made available on October 11, 2019, for a 15-day public review period. A public legal notice was posted in the Wisconsin State Journal on October 7, 2019, and the Badger Herald newspaper on October 8, 2019, to present the draft findings of the EIA addendum and to request public
input prior to finalizing the EIA addendum. Copies of the Draft EIA addendum was made available at UW-Madison’s Helen C. White Library and Madison Public (Central Branch) Library, and online at:

http://www.ayresprojectinfo.com/Lathrop-Bascom-Utility

All comments on the Draft EIA addendum report were to be received no later than 6:00 p.m., October 26, 2019, for consideration and incorporation into the Final EIA addendum document. Comments were submitted in writing and sent to the address below:

Ben Peotter, PE
Ayres Associates
5201 E. Terrace Drive, Suite 200
Madison, WI 53718
PeotterB@AyresAssociates.com

Draft EIA Public Meeting

A Draft EIA public meeting was held at 5:00 p.m. on Thursday, May 2, 2019, at Conference Room 132 of the Wisconsin Alumni Research Foundation (WARF) Building located at 610 Walnut Street, Madison, Wisconsin 53726 on the UW-Madison campus. The meeting was open to the public. Comments were solicited at the meeting and throughout the 15-day comment period ending on May 8, 2019. Comments on the EIA Addendum were solicited throughout a 15-day comment period October 11 through October 26, 2019. A public meeting for the Addendum was not held.

Information provided during the comment periods and meeting was considered by the design team and incorporated into the Final EIA report and Final EIA Addendum. Refer to Appendix B of the original EIA for the Draft EIA Public Notice, publication affidavit, meeting slides, minutes, and comments received during the WEPA process. The legal notice and publication affidavit for the EIA Addendum can be found in Attachment 5.
I. Description of Proposed Action

A. Title of Proposed Project

Lathrop Drive/Bascom Hill Utility Improvements – Phase 1 Addendum

University of Wisconsin – Madison

B. Project Location

South and east sides of Science Hall: Bound by North Park Street to the east and Observatory Drive to the north

County: Dane

Site Location: City of Madison, Wisconsin, 43°04'29.9"N 89°24'12.8"W

C. Project

General Project Description

The proposed project scope associated with this addendum will construct a new cast-in-place steam tunnel on the south side of Science Hall, wrapping around to the east side of the building. Science Hall is in the northeast portion of the Bascom Hill area and is bound by Observatory Drive to the north and North Park Street to the east. Figures 1 to 6 in Attachment 1 show the project limits. Attachment 3 shows specific project components.

Phase I of the Lathrop Drive/Bascom Hill Utility Improvement Project is divided into three phases: bid packets (BP) 1 through 3. BP3 includes the new cast-in-place tunnel from northeast South Hall to between Radio and Science Halls, across Bascom Hill, and a new steam pit, box conduits, and a duct bank connecting Music Hall. This steam tunnel extension around Science Hall is an addition to the original scope of work in Phase I of this project that was published with the original EIA document (dated June 2019). The details of the design and their associated impacts were not known at the time of the original EIA publication.

The steam tunnel will provide high-pressure steam, low-pressure steam, pumped condensate, and compressed air. All construction work of the steam tunnel around Science Hall will be in open cut trenches with soil retention to minimize the width of the trench. There will be no new connections made to Science Hall since the existing foundation opening will be utilized.

No previously unidentified existing infrastructure around Science Hall will need to be abandoned associated with this new construction. However, a section of existing steam box conduit and tunnel wall between Radio and Science Halls will be removed, and a storm sewer will be demolished along the southern edge of Science Hall. These items were included in the original scope of work previously presented in the original EIA for the project.
During the construction of the utility upgrades, Lathrop Drive and the south-bound lane on North Park Street will need to be closed. The sidewalk wrapping around the southern half of the Science Hall will also be closed during construction and barricades will be placed on the western and eastern ends. The timeframe will be minimized to limit the need for pedestrian detours and road closures. Any work needed can only occur over the summer months when school is out. All public street closures, full or partial, will require a street use permit from the City of Madison that the general contractor will need to submit and gain approval for well in advance of the need to close the street. Pedestrian and bike traffic will require detours and rerouting at various times throughout the project. Entrances with ADA accessibility, emergency accesses, and parking stalls will be accessible at Science Hall throughout project construction. Details regarding the traffic control plan are shown in Attachment 3.

Upon completion of the utility system, all areas disturbed by the project will be fully restored, including roadways, gutters, sidewalks, landscaping features, and site structures. Restoration of elements with the City of Madison right-of-way will require review and approval by city Engineering staff, under the authority of the city’s Board of Public Works and the Common Council, although most work takes place within the UW-Madison campus limits and will not require review and approval by the City.

**Purpose and Need (Objective, History, and Background)**

Campus utilities are essential in supporting the instructional and research missions of the university. The UW-Madison campus is currently served by three heating and cooling plants: Charter Street Heating Plant (CSHP), Walnut Street Heating Plant (WSHP), and West Campus Cogeneration Facility (WCCF). The three plants supply steam, chilled water, and compressed air throughout campus.

The 2005 and 2015 Utility Master Plans recommended a comprehensive north campus utility improvement project. Recommendations indicate utility systems should be replaced and/or relocated due to age, condition, location, and increased in size where necessary, all to support current facilities, future facilities, and provide additional system redundancy.

The Bascom Hill steam tunnels are the oldest and narrowest on campus, difficult and dangerous to access, and present a high risk for failure. A high-pressure steam line of the same vintage as those tunnels recently failed within Radio Hall causing extensive damage to the facility and contents.

The proposed addendum scope added to the project extends the steam tunnel around the south and east side of Science Hall. This extension will improve the reliability and lifespan of the utility. Addendum work is part of the original project titled Lathrop Drive/Bascom Hill Utility Repairs (DFD Projects 17J2L), identified in the 2005 Utility Master Plan, and enumerated in the 2017-2019 biennial budget bill.

**D. Estimated Cost and Funding Source**

The proposed addendum work is included in the original project budget, which was enumerated in the 2017-19 UW System and State of Wisconsin capital budget. The project
has an authorized budget of $32,656,000, related to the thermal, civil and electrical distribution systems by replacing, upsizing and adding the necessary infrastructure to complete the utility transmissions. Total budget costs are estimated to be $32,656,000. $23,839,000 of funding will be sourced from General Fund Supported Borrowing and $8,817,000 will be sourced from Program Revenue Supported Borrowing. Phase 1 of the project is estimated at a total cost of $20,076,000.

E. Project Schedule

The proposed project schedule milestones as of the release of this document are as follows:

- Bid Pack 3 (BP3) release: December 2019
- Construction Start Date: May 2020

Note: Individual project components and detailed milestones concerning the addendum project will be scheduled to avoid interfering with the regular school year and football season.
II. Existing Environment

A. Physical

Soils and Topography

Soils in the proposed addendum project area are depicted on the United States Department of Agriculture (USDA) map included in Attachment 1 (Figure 3). The site consists of a mix of two different kinds of soils: McHenry silt loam and Dodge silt loam. McHenry silt loam (MdC2, 6 to 12 percent slopes) form in loess or other silty material and in the underlying loamy till on moraines and till plains. Dodge silt loam (DnB, 2 to 6 percent slopes) form in drumlins and in the underlying loess over calcareous loamy till. Both soil types are well-drained.

According to a nearby underground heating oil storage tank closure assessment conducted by Environmental Construction and Remediation Services, Inc. (ECRS), UW School of Business, general soil types are expected to consist of approximately one (1) foot of fill material underlain by native sandy silt (1 to 5 feet below grade), clay (5 to 6 feet below grade), and sand (6 to 15 feet below grade) (ECRS, 1992).

Topography generally slopes radially in every direction from Bascom Hill, a local high-point at 924 feet above mean sea level (msl). For existing site conditions, refer to Figure 5 in Attachment 1.

Utilities

Steam System

Please refer to original EIA document. See Attachment 3, Figure 1 for the overall utility configuration in the project area.

Surface Water and Groundwater

Please refer to original EIA document.

Wetlands and Flood Plains

Please refer to original EIA document. Refer to Attachment 1, Figures 4 and 6 for the Wetland Indicator and FEMA floodplain maps associated with the project site.

Air

Please refer to original EIA document.

B. Biological

Existing Landscape
Please refer to original EIA document for a full discussion about the existing landscape. The existing landscape in the area around Science Hall consists primarily of mown lawn with scattered shade and ornamental deciduous trees. One memorial tree exists near the southwest corner of the building.

Endangered Resources Review

Please refer to original EIA document. The ERR request correspondence and an ER Review Verification Form regarding the project are located in Appendix F of the original EIA.

C. Social

UW-Madison

Please refer to original EIA document for a full discussion on the social conditions surrounding UW-Madison.

The project area is in one of the oldest and most historic areas on the UW Madison campus. Important social features about Bascom Hill and Science Hall include:

- Science Hall: Houses include the following:
  - Air Resource Management Certificate
  - State Cartographer's Office
  - Cartographic Lab
  - Conservation Biology and Sustainable Development Graduate Program (CBSD)
  - Energy Analysis and Policy Certificate
  - Nelson Institute for Environmental Studies
  - Environment and Resources Graduate Program
  - Department of Geography
  - Land Tenure Center (LTC)
  - Arthur H. Robinson Map Library
  - Transportation Management and Policy Certificate
  - Water Resources Management Graduate Program

This building is an integral part of the campus not only for science students and teachers but for its association with Charles R. Van Hise, who led the Department of Mineralogy and Geology to national prominence and then served as president of the university.

- Bascom Hill: Lies at the heart of campus and is flanked by the University’s oldest buildings. The hill is a popular spot for students to study, relax and play throughout the year.

Due to the important nature of the project location, multiple transportation options provide access to these features. These transportation systems, pedestrian route, and bicycle route details can be found in the original EIA document.
D. Economic

The University of Wisconsin-Madison has a huge impact on the local and state economy, and facilities along West Dayton Street are included in this impact. Work included in the extended scope project reflects that of the original EIA. Details about economics can be found in the original EIA.

E. Other (Hazardous Materials, Archaeological, Historical, etc.)

Environmental Risk Information Services (ERIS), a commercial database service, provided a federal, state, and local environmental records search for the project site and surrounding area. The ERIS database search was completed on November 19, 2018, and a copy of the database report is provided in Appendix G of the original EIA document. This section addresses specific sites identified on standard federal environmental records that could result in a potential environmental concern in connection with the proposed project. Ayres Associates identified sites within the project boundaries and on adjoining parcels. Findings of the records review are discussed in the original EIA.

DATCP Registered Tanks

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) maintains a list of underground storage tank (UST) and aboveground storage tank (AST) locations regulated under the Wisconsin Administrative Code, Chapter ATCP 93- Flammable and Combustible Liquids. A search for ASTs and USTs on the project site and adjoining parcels was conducted. The results are included in the original EIA.

EPA Database Search

Standard United States Environmental Protection Agency (EPA) database results were reviewed for sites listed as Superfund Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) sites and generators or handlers of hazardous waste.

Refer to Appendix G in the original EIA for sites identified within the EPA’s multi-system database that are within proximity to the project location and adjoining properties and corresponding activity details.

BRRTS

The WDNR Bureau of Remediation and Redevelopment (RR) Tracking System (BRRTS) database and corresponding RR Sites Map was searched on September 9, 2019. The RR Sites Map is the WDNR's web-based mapping system that provides information about contaminated properties and other activities related to the investigation and cleanup of contaminated soil or groundwater in Wisconsin. Details on the sites identified can be found in the original EIA. Refer to Appendix G in the original EIA for a map depicting the sites identified in the BRRTS database that are within proximity to the project location as well as the corresponding activity details.
**SHWIMS**

The Solid and Hazardous Waste Information System (SHWIMS) provides access to information on sites, and facilities operating at sites that are regulated by the WDNR Waste Management program. Activities that occurred at facilities include landfill operation, waste transportation, hazardous waste generation, wood-burning, waste processing, sharps collection, and many others. SHWIMS was searched for applicable sites on November 19, 2018. The search area included a search radius of adjoining properties surrounding the project site. Refer to the original EIA for SHWIMS search findings.

**Archaeological and Historical**

A search of the Wisconsin Historic Preservation Database (WHPD) was conducted on November 6, 2018, for any registered sites nearby and/or adjoining the Area of Potential Effect (APE), in Madison, Dane County, Wisconsin. The project area associated with the EIA Addendum is located around Science Hall on the east side of the Bascom Hill area, one of the oldest and most historic areas on campus which includes both historical and archeological elements. Science Hall is listed as a National Historic Landmark within the Bascom Hill Historic District.

One resource adjoining or nearby the project area is listed in the Archaeological Sites Inventory (ASI): Bascom Hill Mounds (DA-0573). Please refer to the original EIA for details on this site.

Since addendum work is not within the burial site limits, it does not pose an issue, however, archeological monitoring will be implemented during initial soil disturbances within the uncatalogued archaeological site DA-0573. Authorization for disturbing soils within this archaeological site have been requested from the Wisconsin Historical Society. Monitoring details can be found in the original EIA document.

Bascom Hill Historic District is listed on both the National and State Registers of Historic Places. The project area includes nineteen (19) buildings listed on the National Register. These sites include Science Hall. No above-grade portions of Science Hall will be disturbed during construction.

The design consultant will coordinate with UW-Madison’s Campus Planning and Landscape Architecture staff on the final design and construction work within the Historic District, in the area of Science Hall. Upon completion of the project, all areas within the Historic District disturbed by the project will be fully restored, including roadways, gutters, terrace areas, streets, trees, sidewalks, landscaping features, and site structures. Care will be taken to maintain the historic character of the project area, including landscape features. See the original EIA document for listing details.

Additional details regarding project activities at Science Hall are included below:

1. The steam box conduits will be open cut trench with soil retention to minimize the width. On average, trenches will be roughly 10’ deep x 12’ wide. Any open trench or pit area will be dug with a backhoe.
2. New connections will not be made to Science Hall. The existing foundation opening will be utilized for new services.

3. A crack and damage survey will document building conditions at Science Hall, including a visual inspection, digital images, and a written report describing the existing defects pre-construction, and any changes in the building’s condition post-construction. The intent of the written report and digital images is to procure a record of the general physical condition of the building’s interior and exterior walls, glazing, and foundation and to identify any areas of concern that should be monitored during construction activities to reduce the potential for additional damage.

Adjoining or nearby the project boundaries, five (5) Architecture and History Inventory (AHI) resources contributing to, eligible for, or listed on the National Register, two (2) ARI reports, and one (1) ASI resource are listed. All resources adjacent to the project work shall be inspected and the condition of the structures, any damage incurred during construction, and a survey shall take place 1 to 3 months after construction is completed to allow time to observe delayed ground response.

A request for State Historic Preservation Officer (SHPO) Review of a supplemental HIST-A document was submitted to the Wisconsin Historical Society (WHS) on Sept. 24, 2019. The HIST-A submittal indicated the additional scope of work will have an effect on historical resources within the project area. Initial correspondence with WHS through December 2019 sought to address initial concerns raised by the review request. Per WHS request, a pre-construction structural assessment of Science Hall was conducted by raSmith on December 19, 2019. The resulting assessment report concluded that Science Hall appeared to be in good shape overall with very little cracking and provided recommendations.

Following submittal of the report to WHS, the Society confirmed the project had been reviewed and pre-construction design concerns had been addressed, with the understanding the following activities will occur as the project proceeds:

- A settlement monitoring program, performed by a third-party consultant, will use seismographs to make vibration and noise observations. A licensed land surveyor will also set survey monuments on the listed buildings to monitor settlement before, during and after the project. Vibration or movement limiting values are detailed in the specification (Section 02 67 00).

- A “Crack and Damage Survey for existing conditions” (specification Section 02 22 15) will document current conditions and any changes after construction is completed.

The WHS submittal, supplemental HIST-A submittal, structural report, and SHPO response are included in Attachment 4. Other nearby historical sites are not anticipated to be impacted as a result of this project.
F. Parking and Transportation

Due to the important nature of the project location, multiple transportation, and parking features are located within and surrounding the project site. Parking and transportation details can be found in the original EIA document.

Parking

The project area associated with this EIA addendum includes Lot 9, located between Science and Radio Halls. This lot includes two ADA parking stalls.

Transportation

In the revised project area, the City owns and maintains North Park Street and the UW owns and maintains Observatory Drive and all the sidewalks and pedestrian paths.

Multiple pedestrian paths exist through the Bascom Hill area. In general, main pedestrian access begins at Bascom Hall and extends east on both the north and south sides of Bascom Hill to North Park Street. Sidewalks also exist throughout the project site, with the most prevalent pedestrian traffic occurring on the south side of Science Hall and in between Science and Radio Halls. City-owned sidewalks exist on each side of North Park Street. Campus sidewalks exist on the north side of Observatory Drive. These pedestrian paths are heavily used by students between classes. During classes, there is little to no pedestrian traffic in the area. Most pedestrian traffic in the area during classes appeared to be University service staff and/or delivery vehicles.

The project site for the extended scope of work is bound by Observatory Drive and North Park Street. Designated bicycle lanes exist along these streets, although bicycles can be seen throughout the project area even though they may not be within high-traffic bicycle zones. As of 2013, North Park Street had a 2,550-average weekday traffic (AWT) count. (City of Madison 2013).

The Madison Metro bus system travels through the UW-Madison campus along most of the major streets, including Observatory Drive and North Park Street. Bus stops are located along North Park Street in front of Lot 5 (bus route 82) and Observatory Drive in front of Sewell Social Sciences (bus routes 80, 81), Bascom Hall (bus route 81), and Muir Woods (routes 80, 81). The Van Gelder and other tour buses pick up and drop off in front of the Memorial Union almost hourly throughout the day.
III. Proposed Environmental Change

The steam, condensate, and compressed air distribution system along Bascom Hill serving the buildings on the north and east end of campus are at or near the end of their useful life. The steam tunnels are the oldest and narrowest on campus, difficult and dangerous to access, and present a high risk for failure. Due to age, operational costs, future facility support and other utility failures in this area that have exacerbated deterioration, the north campus utility system is at risk for further failure and disruption of its distribution systems.

Work completed under the proposed Lathrop Drive/Bascom Hill Utility Improvement project extended scope will improve the reliability of the steam systems in this area by adding the necessary infrastructure to complete the utility tunnel along the south and east side of Science Hall.

The original scope of Phase 1 of the utility upgrade project is described in the original EIA document. The revised scope of Phase 1, which includes the construction of the Science Hall steam tunnel, is located in Attachment 3.

A. Manipulation of Terrestrial Resources

Terrestrial resources deal with changes that will occur to land surfaces as opposed to water or air resources.

Surface and Subsurface Manipulation

Subsurface Manipulation

Tunnel excavation is expected to be approximately 12 feet wide with depths up to 30 feet below grade. Soil excavation and removal will occur as a result of this project. Some of this removed soil can be reused as backfill material; however, since it is likely to be comprised of silty loam, the material likely does not meet the drainage characteristics required for utility trench backfill.

During construction activities, the hard surfaces in areas of construction will need to be demolished and removed. The project site will be restored after utility demolition and installation. Following restoration, the general surface grades would be relatively unchanged, with slight modifications to allow for slopes and grading in accordance with the final landscaping plan. Final restoration will be completed at the end of the construction period. Details of subsurface manipulation plans are described below.

Steam System

The Steam System for the revised scope of work includes constructing a cast-in-place concrete walkable tunnel along the south and east side of the Science Hall for the new steam/condensate/compressed air piping to route through. All steam tunnel and steam pits, new and existing to remain, will have new luminaires, receptacles and sump pumps installed along with BAS monitoring for the sump pump loss of power and high-level alarm. These circuits will be fed from the nearest available source in nearby buildings. Construction will
be consistent with DFD standard construction details. Steam/condensate/compressed air piping, insulation, valving, and pipe specialties types and models are based on DFD specified requirements.

*Compressed Air System*

The Compressed Air System new work correlates directly with the Steam System new work. The new work includes a new walkable tunnel with condensate and compressed air piping extended around Science Hall. Compressed Air System new work information is not graphically depicted on a separate, utility-specific drawing.

*Surface Manipulation*

Several trees and landscaped areas within the project area limits exist. Two trees and several shrubs will need to be removed, and the lawn areas will be stripped for excavation and construction access. Open cut trenches with soil retention construction methods will mitigate the disturbance to vegetation throughout the project area. A tree protection and removals plan are included in Attachment 3.

Following construction, vegetation loss as a result of the project will be replaced or restored with those of similar character and species to maintain the visual aesthetic of this area of campus. Materials will additionally act as a storm water mitigation in the area to address known storm water issues. All plantings will be restored in-place, with historically appropriate materials. Following project construction, disturbed turf areas will be restored to match the existing mowed turf grass unless otherwise noted.

The project will avoid disturbing shade trees. Please refer to the original EIA document for more information on tree disturbance and protection.

**B. Manipulation of Aquatic Resources**

For information about erosion and stormwater control measures, dewatering practices, and a Wisconsin Pollutant Discharge Elimination System (WPDES) permit, refer to the original EIA.

**C. Structures**

No buildings or other, above-grade structures will be demolished as part of the additional scope of work associated with this addendum. All project work will take place below grade.

Science Hall will have impacts to building access with alternate pedestrian routings probable.

Other structures provided for this project could include pedestrian or bicycle flow devices, such as covered walkways or wooden bridges with railings, to limit potential hazards to pedestrians from work taking place adjacent to the pedestrian flow.
D. Other

Asbestos and Hazardous Materials

Asbestos-containing materials (ACM) potentially exist in some of the pipe insulation in steam pits or as part of the construction of the direct buried steam and condensate piping between pits throughout campus. If and when this occurs, the materials will be disposed of with the demolition debris in accordance with state and federal regulations and the demolition specifications.

A closed ERP site is located on the adjoining eastern parcel at a lower relative elevation, side-gradient with respect to groundwater flow. There were also two historic spills at Birge Hall and a spill at North Park Street and Observatory Drive. Each of these sites have been dealt with to satisfaction of the WDNR and are unlikely to impact the proposed project area. Additional petroleum and hazardous material releases were not reported within the boundaries of the project site based on a review of standard databases.

Details about ACM removal and environmental listings can be found in the original EIA document.

Utilities

Development of this project is both impacted by and will also impact the existing utilities in the areas. The tunnels and other project components must either adjust grades, elevations and locations to miss existing utilities or modify existing utilities to miss the tunnels. A number of known and unknown abandoned utilities and utility laterals exist in this area and may be encountered during project development. Sanitary and water lateral locations are marked in approximate locations on City of Madison drawings that were in some cases developed in the early 1900s.

Specifications for utility construction and upgrade require that the existing services be substantially-to-completely uninterrupted. The construction work will require the installation of some temporary utility features that will provide the same services and capacities as what is currently provided at the existing building until permanent utilities can be completed. Upgrades of these features will be undetectable within operating services in the buildings serviced by this area during this construction period.

Noise

Permanent ambient noise levels are not expected to be altered by the project, except during construction activities. Construction of the new steam tunnel for the extended scope of work would not significantly increase the noise levels that were already defined in the original scope of work. For more information about construction noise, refer to the original EIA document.
Traffic and Parking

Construction activities will necessitate temporary traffic control during various sequences. Upon completion of construction, traffic patterns for pedestrians, bicycles, and vehicles will return to their normal operating conditions.

During the revised scope of work surrounding Science Hall, the south-bound lane on North Park Street will be temporarily closed. All public street closures, full or partial, will require a street use permit from the City of Madison that the general contractor will need to submit and gain approval for well in advance of the need to close the street. Some updates to access points and parking stalls will be necessary in various locations throughout project construction. Details regarding the traffic control plans are included in Attachment 3.

Science Hall’s main entrance is on North Park Street and the ADA accessible entrance during construction will be on the west side of the Science Hall. Parking Lot 9 is located between Science and Radio Halls and has two UW disabled parking stalls available with a UW Disabled permit.

Additional parking will not be provided by the project nor will there be any long-term removal of parking spots as a direct result of this project. Construction staging for a portion of the utility project will likely occur in an open vacated area near the project site.

Erosion Control

Surface water runoff from the proposed site work will be controlled during both the construction phase. Silt fences, inlet protection, and other runoff/siltation devices will be utilized during construction activities in accordance with construction best management practices (Wisconsin Administration Code Chapter NR 151 Runoff Management and NR 216 Stormwater Discharge Permits) to minimize environmental impacts of the project. The erosion control plan will comply with university, city, and state standards.

An erosion control plan has not yet been developed for this project but will be properly permitted prior to construction. The project may require a construction tracking pad to reduce tracking of soil material on to adjoining driveways.

Visual

Visual aesthetics in the vicinity of the proposed project will be affected. The asphalt, concrete, utilities and landscaped surfaces in the location of the project will be removed and replaced with new utilities, landscaping, and pavement. Physical site topography will not be significantly changed.
IV. Probable Adverse and Beneficial Impacts

Probable adverse and beneficial impacts mirror those of the original EIA. Therefore, please refer to that document for a complete synopsis.

A. Physical Impacts

The physical aspects of this project have minimal adverse impacts, anticipated to be limited to construction activities. Short-term noise and minor air impacts from construction activities are expected to impact the campus for the duration of the project. Though unanticipated, localized utility outages could occur while portions of this project are being implemented. No other groundwater or soil impacts are expected to arise as a result of this project beyond water management for the installation of deeper construction. Beneficial impacts will be realized long-term by the incorporation of the utility features into shaping the future of the campus plan direction and providing more reliable utility services to buildings that need these features.

B. Biological Impacts

Long-term adverse biological impacts are not anticipated as the project site is located in a developed area, including where utilities already exist. Greenspace of the project site is expected to remain consistent with the current configuration and maintain its historic character. The project area is on developed land and it is not considered to be wildlife habitat of any significance beyond songbirds or small mammals, such as squirrels. The project site does overlap a Rusty Patched Bumble Bee High Potential Zone. Although areas of manicured lawn and paved areas are not considered suitable habitat for the bee, conservation measures were recommended to be added into the project plans in an effort to create additional habitat for the bee. These recommendations are included in Appendix F of the original EIA document.

C. Socioeconomic Impacts

As campus planners lay the foundations for the future, infrastructure upgrades are required to provide the modern amenities to the campus structure and to provide the basic building blocks to support the campus growth. The extended scope of work expanding the utility improvements around the Science Hall as part of the larger Lathrop Drive and Bascom Hill utility improvement project is the impetus behind this environmental impact assessment.

The extended scope of Phase 1 of the Lathrop Drive/Bascom Hill Utility Improvement project extends the proposed steam tunnel around the southern and eastern edge of the Science Hall, which is located on the corner of Observatory Drive and North Park Street. Each of these streets and corridors are heavily used by nearby students, faculty, and visitors as they traverse the campus in between housing, classes, and campus activities along Bascom Hill. Consequently, the proposed utility improvement project will necessarily impact traffic and pedestrian movements along the construction routes. Utility construction will create some inconveniences for pedestrians, vehicular traffic, mopeds, and bicyclists along construction routes. From time to time, access to public and private buildings will be
rerouted to accommodate the construction activity and to provide safe travel for the public during the construction of the utility corridor.

As in any major construction project, some traffic rerouting will likely occur (see Attachment 3). As this portion of the utility construction creates site disruption, temporary and single lane closures will likely occur, as well as possible realignment of bus stops and pedestrian crosswalks. Details of planned rerouting are described in Section III, D.

The project area includes Lot 9 located between Radio Hall and Science Hall. Some parking areas will temporarily be impacted from the construction activities. Provisions will be made, where possible, to help reduce the loss of those spaces; although some jack and boreholes may temporarily reduce parking capacity since they will end up in some lots.

In summary, the socioeconomic impacts associated with the Lathrop Drive/Bascom Hill Utility Improvement addendum construction would not cause any major changes to employment, student housing, or public finance in the region of influence on the north portion of the UW-Madison campus. Waste generated during construction would be adequately managed by the construction management team and properly disposed of campus. Moreover, the improvements in utility design, service area and speed, and advanced technology along the Lathrop Drive/Bascom Hill utility corridors would have a positive effect of reducing overall accident risks, power supply outages (brown-outs), supply sufficient infrastructure upgrades to allow expansion of new construction and existing services in the project and surrounding area when compared to the existing infrastructure in this area. Adverse effects related to construction noise are anticipated to be localized, temporary, and transient. For more detail about the socioeconomic impacts, refer to the original EIA document.

D. Other (Archaeological, Historical, etc.)

Energy and Utilities

There will be a continued commitment of energy resources to construct the project, including fossil fuel consumption used by construction vehicles and equipment. Energy that will irreversibly be consumed includes fuel and electricity used to run construction equipment and to operate construction material manufacturing plants and quarries. Other electrical needs may include lighting, compressors, and tools.

In the long term, the proposed action will likely slightly decrease resource consumption through improved utilities. Utility systems from the existing area currently adequately handle the south campus area’s loads, but the utility’s functional future is unknown given its detrimental aging. This project will construct an additional steam tunnel to provide uninterrupted services for decades to come.

Archeological and Historical

Historical resources are located within the revised project area. The project area associated with the EIA addendum does not include archaeological elements. Details about resources located nearby or adjoin the project site can be found in the original EIA document.
A HIST-A document to supplement the original submittal was submitted in September 2019, indicating the additional scope of work will have an effect on historical resources within the project area. A request for SHPO review was submitted to the Wisconsin Historical Society on Sept. 24, 2019. According to the WHS request, a pre-construction structural assessment of Science Hall was conducted by raSmith on December 19, 2019. The resulting assessment report concluded that Science Hall appeared to be in good shape overall with very little cracking and provided recommendations.

Following submittal of the report to WHS, they confirmed the project had been reviewed and pre-construction design concerns had been addressed, with the understanding settlement monitoring and crack and damage survey activities will occur as the project proceeds. The WHS submittal, supplemental HIST-A submittal, structural report, and SHPO response are included in Attachment 4. Other nearby historical sites are not anticipated to be impacted as a result of this project.

Resources pertaining to the project and surrounding area include:

<table>
<thead>
<tr>
<th>Database</th>
<th>Resource (Reference Number)</th>
</tr>
</thead>
</table>
| Wisconsin Archaeological Site Inventory (ASI) | • State Site #: DA-0573, ASI #: 9945  
  o Bascom Hill Mounds (North Hall Mounds)  
  o Nearby project boundary  
  o Not in National Registry  
  o Burial Number: BDA-0417  
  o “This mound group consisted of two linear and one conical mound and one panther (or turtle) effigy mound. It was formerly broken into two separate groups in the ASI (Bascom Hill and North Hall). The mounds were located in close proximity and formed a single group. Accounts concerning the form of the effigy on the hill vary.  
  o The Bascom Hill sub-group originally contained one conical and one panther (or turtle) effigy mound. They were destroyed in 1859 by the construction of Bascom Hall on the University of Wisconsin-Madison campus. The North Hall sub-group contained two linear mounds. They were destroyed by grading in 1851 and were said to have been located between North Hall and the lake bank. They were described as quite prominent.” |
| National Registry/State Registry (NR/SR)     | • Bascom Hill Historic District; NR Reference Number 74000065; This NR site includes 37 structures and properties which surround what was once known as “College Hill.” The district was updated in 2012. The district contains the five oldest buildings built for UW-Madison including Bascom Hall, North and South Halls, the Assembly and Library Hall, and the Mining Engineering and Heating Station. The campus continued to expand and with it the Bascom Hill Historic District, which now includes those sites most associated with campus life. The district represents the most historic cluster of institutional buildings in Wisconsin. More importantly, its sensitive mix of urban and natural spaces forms a memorable and coherent district. |
| Wisconsin Architecture and History Inventory (AHI) | • Science Hall  
  o Built 1887  
  o Richardson Romanesque style |
Hazardous Materials

Impacts associated with hazardous materials or environmental conditions on-site are not anticipated. Abatement of asbestos-containing materials and lead will be conducted in a safe manner consistent with regulatory standards to protect the health and welfare of the workers and residents of the facilities.
V. Probable Adverse Impacts That Cannot Be Avoided

An unavoidable adverse impact of the proposed project is the commitment of energy, materials, and financial resources. These impacts are identical to those laid out in the original EIA, therefore, refer to that document for more information.
VI. **Relationship between Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity**

During the short-term, the properties, residents, staff, students, faculty, patrons, and the local environment in the vicinity of the proposed project will be affected by construction and construction-related activities. Related short-term impacts will include increased noise levels and consumption of fuels and other construction materials. These impacts will not exist in the long-term when demolition, renovation, construction, and restoration are complete.

During the short-term, the local project environment will be affected by construction and construction-related activities. This relatively short-term project provides a long-term service and response to an increased need for reliable utility access and a backup in case other utilities fail throughout the campus. These new utilities may also provide greater utility yields compared to the current utility configuration, although specific yields have not been calculated at this time.

UW-Madison is not only protecting themselves against inevitable failure of out of date utilities, but they are allowing the expansion of surrounding buildings by potentially improving the efficiency and capacity of these utilities. Site improvements save and provide assets such as safety, materials, energy, cost, and time compared to waiting to repair utilities after they have already failed.
VII. Irreversible or Irretrievable Commitments of Resources if Action is Implemented

A. Energy

There will be a commitment of energy resources to construct the project, including fossil fuel consumption used by construction vehicles and equipment. Energy that will irreversibly be consumed includes fuel and electricity used to run construction equipment and to operate construction material manufacturing plants and quarries. Electrical needs may include lighting, compressors, and tools.

Long-term consumption of resources to allow project completion, and continued operation of the facility, will not negatively impact or overload supplies. The intent of this project is to maintain UW-Madison’s initiative to continue providing optimal facilities for current and prospective students. To enable UW-Madison’s growth, up-to-date utilities must be installed.

B. Archaeological and Historic Features or Sites

A supplemental HIST-A document was submitted in September 2019, indicating the additional scope of work will have an effect on historical resources within the project area. A request for State Historic Preservation Officer (SHPO) Review was submitted to the Wisconsin Historical Society on Sept. 24, 2019. Initial correspondence with WHS through December 2019 sought to address initial concerns raised by the review request. Per WHS request, a pre-construction structural assessment of Science Hall was conducted by raSmith on December 19, 2019. The resulting assessment report concluded that Science Hall appeared to be in good shape overall with very little cracking and provided recommendations. WHS confirmed the project had been reviewed and pre-construction design concerns had been addressed, with the understanding settlement monitoring and crack and damage survey activities will occur as the project proceeds.

The WHS submittal, supplemental HIST-A submittal, structural report, and SHPO response are included in Attachment 4. Other nearby historical sites are not anticipated to be impacted as a result of this project.

C. Financial

An unavoidable impact of the proposed action is the commitment of energy, materials, and financial resources to design and complete the project. The entire project (Phases 1 and 2) will require an initial financial commitment of $32,656,000, as well as on-going annual utility and operation and maintenance expenses. Phase 1 of the project is estimated at a total cost of $20,076,000. The utility expansion may result in a slight decrease in the expenditure of energy due to improved efficiency and, therefore, possibly a decreased utility cost. This project will not create an increase in tuition for students directly.
VIII. Alternatives

Alternatives to the proposed project are described below.

- **No Action/Defer the Project Request.** This alternative eliminates construction of the new steam tunnel along Science Hall. A no-build alternative does not meet UW-Madison’s needs. If no action is pursued, the existing utilities will continue to be serviceable in the short term, but the useful life will not be extended and increase the likelihood of failure due to deterioration over time. A failure of these utilities would incapacitate a large part of the north side of the UW-Madison campus and would be an eventuality if not addressed through this project or one in the future (deferred request).

- **Other Design Alternatives.** Various alternatives and phasing plans have been evaluated within the context of the 2005 Utility Master Plan and more recently in the Lathrop Drive/Bascom Hill Utility Study. Design alternatives for the utility improvements were discussed and rejected by the design team. This location is a key utility corridor and due to the nature of the design aspects, there is no other suitable corridor that provides the noted benefits and design parameters compared to the selected alternative. The project presented in this document is considered to be the most efficient, practical, and economically justifiable to meet present and future needs in this area of the campus.

Other alternatives such as building new utilities elsewhere were not explored since they did not meet the financial limitations of the area, were well beyond the scope of this project in siting a new area and did not address the best use of the space by UW-Madison.
IX. Evaluation

A comprehensive evaluation of this project and anticipated impacts are included in the original EIA document. Findings associated with this addendum mirror those outlined in the original EIA.
X. List of Agencies, Groups, and Individuals Contacted Regarding this Project

A list of individuals or agencies contacted during the preparation of this EIA addendum is included in the original EIA document.

A copy of the Draft EIA report addendum was made available at the following libraries:

Local Libraries

University of Wisconsin – Madison
Helen C. White Library
600 North Park Street
Madison, WI 53706

Madison Public Library
201 West Mifflin Street
Madison, WI 53703

Websites

The Final EIA addendum is available for viewing online at:

http://www.ayresprojectinfo.com/Lathrop-Bascom-Utility
XI. Recommendation

The UW-Madison Environmental Affairs Coordinator has reviewed the Draft EIA and comments were received during the Draft EIA public comment period to determine if a recommendation is needed to elevate this project to a Type I level as an Environmental Impact Statement (EIS).

The WEPA Coordinator for the campus concludes that this project is not a “major action that would significantly affect the quality of the human environment”, and therefore does not necessitate an EIS.

Therefore, it is the opinion of the campus WEPA Coordinator that this Final EIA meets the spirit and intent of the Wisconsin Environmental Policy Act, concludes the WEPA process in accordance with Wis. Stats §1.11 and recommends the campus proceed with the proposed project as planned. See the recommendation below.

<table>
<thead>
<tr>
<th>RECOMMENDATION</th>
<th>(to be completed by institution WEPA Coordinator)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ EIS NotRequired</td>
<td>Analysis of the expected impact of this proposal is of sufficient scope and detail to conclude that this is not a major action which would significantly affect the quality of the human environment. In my opinion therefore, an environmental impact statement is not required before the board undertakes this action.</td>
</tr>
<tr>
<td>☐ Major and Significant Action: PREPARE EIS</td>
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</table>

CERTIFIED TO BE IN COMPLIANCE WITH WEPA -
Public Notice Completed (include copy of public notice for permanent record)

<table>
<thead>
<tr>
<th>Institution WEPA Coordinator</th>
<th>Date:</th>
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<tbody>
<tr>
<td>[Signature]</td>
<td>12/15/2020</td>
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</tbody>
</table>

This decision is not final until approved by the appropriate Director. Regent Resolution 2508 11/06/81
XII. References


Heg, J. E., ed. "Wisconsin and her institutions: University of Wisconsin: History" in the blue book of the state of Wisconsin 1883 Madison, 1883; p. 393


City of Madison Website. http://www.cityofmadison.com

United States Environmental Protection Agency Envirofacts Website. http://www.epa.gov/enviro/


Wisconsin Department of Natural Resources Remediation and Redevelopment Sites Map Website. http://dnrmaps.wi.gov/sl/?Viewer= RR%20Sites
Wisconsin Department of Natural Resources Surface Water Data Viewer Website.
http://dnrmaps.wi.gov/sl/?Viewer=SWDV

Wisconsin Department of Natural Resources – Solid and Hazardous Waste Information Management System online database. http://dnr.wi.gov/sotw/Welcome.do
Attachment 1

Site Maps and Additional Site Information
Figure 1
Campus Map

Environmental Impact Assessment Addendum
University of Wisconsin – Madison
Lathrop Drive/Bascom Hill Utilities Improvement - Phase 1
DFD Project # 17J2L

FIGURE 3
Soil Map - Dane County, Wisconsin
Lathrop Drive/Bascom Hill Utility Upgrade Addendum

Soil Map may not be valid at this scale.
**FIGURE 3A**

Soil Map - Dane County, Wisconsin
Lathrop Drive/Bascom Hill Utility Upgrade Addendum

**MAP LEGEND**

<table>
<thead>
<tr>
<th>Area of Interest (AOI)</th>
<th>Soil Map Unit Polygons</th>
<th>Soil Map Unit Lines</th>
<th>Soil Map Unit Points</th>
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<td>Blowout</td>
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<td>Slide or Slip</td>
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<td>Background</td>
<td>Aerial Photography</td>
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</table>

**MAP INFORMATION**

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dane County, Wisconsin
Survey Area Data: Version 17, Sep 11, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 16, 2013—Aug 29, 2013

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.
Map Unit Legend

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<th>Map Unit Name</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
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Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,
Figure 4 - Surface Water Data Viewer Map

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/legal/
Figure 5
Topographic Map

Environmental Impact Assessment Addendum
University of Wisconsin – Madison
Lathrop Drive/Bascom Hill Utilities Improvement - Phase 1
DFD Project # 17J2L

Source: USGS 7.5-Minute Series Topographic Quadrangle, Madison West, Wisconsin, 2016
**Figure 6 - National Flood Hazard Layer FIRMette**

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/6/2019 at 2:37:02 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

**Legend**

- **Without Base Flood Elevation (BFE)**
- **With BFE or Depth**
- **Regulatory Floodway**
- **0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile**
- **Zone A, V, A99**
- **Zone AE, AO, AH, VE, AR**
- **Future Conditions 1% Annual Chance Flood Hazard**
- **Zone X**
- **Area with Reduced Flood Risk due to Levee. See Notes.**
- **Zone D**
- **Area with Flood Risk due to Levee**
- **Zone X**
- **Area with Flood Risk due to Levee**
- **Zone D**
- **Area of Undetermined Flood Hazard**
- **Channel, Culvert, or Storm Sewer**
- **Levee, Dike, or Floodwall**
- **Cross Sections with 1% Annual Chance Water Surface Elevation**
- **Coastal Transect**
- **Base Flood Elevation Line (BFE)**
- **Limit of Study**
- **Jurisdiction Boundary**
- **Coastal Transect Baseline**
- **Profile Baseline**
- **Hydrographic Feature**
- **Digital Data Available**
- **No Digital Data Available**
- **Unmapped**

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.
Attachment 2
Site Photographs
Photo 1: View of the southern side of the Science Hall walking up Bascom Hill, looking north.

Photo 2: View of Bascom Hill and Bascom Hall looking west, Science Hall would be on the right (north).

Photo 3: View of the southeastern side of Science Hall, looking across North Park Street. Addendum work would wrap around this corner.

Photo 4: Southeastern side of Science Hall, looking northwest. Corner where addendum work would be completed.
Site Photographs
Lathrop Drive/Bascom Hill Utility Improvements – Phase 1
Environmental Impact Assessment Addendum

Photo 5: Lawn and trees in front of southeastern corner of Science Hall, looking west/southwest.

Photo 6: Front view of eastern side of Science Hall, looking southwest. Steam tunnel construction would discontinue here.

Photo 7: North side of Science Hall, looking east.

Photo 8: South side of Science Hall, looking north. Area of addendum construction.
Site Photographs
Lathrop Drive/Bascom Hill Utility Improvements – Phase 1
Environmental Impact Assessment Addendum

Photo 9: Southwest side of Science Hall, looking northeast.

Photo 10: Lawn area in between Science Hall and Education Hall, looking north. Steam tunnel would extend from this point and go east and north around the Science Hall.

Photo 11: Education Hall, looking northwest.

Photo 12: West side of Science Hall, looking east. Location of Parking Lot 9 and ADA entrance.
Attachment 3
Future Site Plans
LATHROP HALL TO SCIENCE HALL SITE UTILITIES
LATHROP DRIVE/BASCOM HILL
UTILITIES IMPROVEMENTS

UNIVERSITY OF WISCONSIN - MADISON
MADISON, WISCONSIN
DIVISION PROJECT No. 17J2L-03

THE STATE OF WISCONSIN
DEPARTMENT OF ADMINISTRATION
DIVISION OF FACILITIES DEVELOPMENT
STATE OF WISCONSIN ADMINISTRATION BUILDING
101 EAST WILSON ST.
P.O. BOX 7866
MADISON, WI 53707

LATHROP HALL TO SCIENCE HALL SITE UTILITIES
LATHROP DRIVE/BASCOM HILL
UTILITIES IMPROVEMENTS

UNIVERSITY OF WISCONSIN - MADISON
MADISON, WISCONSIN
DIVISION PROJECT No. 17J2L-03

THE STATE OF WISCONSIN
DEPARTMENT OF ADMINISTRATION
DIVISION OF FACILITIES DEVELOPMENT
STATE OF WISCONSIN ADMINISTRATION BUILDING
101 EAST WILSON ST.
P.O. BOX 7866
MADISON, WI 53707

AREA OF WORK

PROJECT LOCATION PLAN

CAMPUS LOCATOR PLAN
PARTIAL STEAM SITE PLAN

PARTIAL STEAM PROFILE

SHEET NOTES:

1. SEE SHEET C100 FOR SITE DEMOLITION AND C101, C102 FOR ADDITIONAL CONSTRUCTION REQUIREMENTS IN THIS AREA.
2. REFER TO L100 DRAWING FOR SITE RESTORATION PLAN.
3. REFER TO C103 SERIES FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.
4. REFER TO 1/2" SCALE DRAWING FOR NORTHING AND ELEVATION.
5. REFER TO 1/2" SCALE DRAWING FOR NORTHING AND ELEVATION.
6. SEE OVERALL PROJECT SCHEDULE FOR INFORMATION ON STAGING FENCING AND TRAFFIC CONTROL.
7. PREPARE DETAILED RESTORATION INSTRUCTIONS AND SPECIFICATIONS TO COVER SITE LOCATIONS, GRADE RESTORATION, PLANTING, ETC. AT THE CONSTRUCTION LIMITS SHOWN TO PROTECT EXISTING STRUCTURES, UTILITIES, VEGETATION, ETC. AT THE CONSTRUCTION LIMITS SHOWN TO PROTECT EXISTING STRUCTURES, UTILITIES, VEGETATION, ETC. AT THE CONSTRUCTION LIMITS SHOWN.
8. REFER TO SHEET C212 FOR SITE DEMOLITION AND C101, C102 FOR ADDITIONAL CONSTRUCTION REQUIREMENTS IN THIS AREA.

DATE: 08/30/2019

PROJECT NUMBER: 218075

EMAIL: R-D@RINGDU.COM
PHONE: 414.778.1700
FAX: 414.778.2360
BROOKFIELD, WI 53045

11740 W. CAPITOL DRIVE
NOTES:
1. WIDTHS AND DIMENSIONS ARE APPROXIMATIONS OF EXISTING FIELD CONDITIONS BASED ON SURVEY. FIT EXISTING FIELD CONDITIONS WHERE APPLICABLE.
2. CONTROL JOINTS FOR TEMPORARY CONCRETE SIDEWALK AND CONCRETE SIDEWALK SHALL HAVE A MAX SPACING OF 6’ MEASURED LONGITUDINALLY ALONG THE SLAB UNLESS TO OTHERWISE NOTED ON PLANS.
3. CONTROL JOINTS FOR HEAVY DUTY CONCRETE PAVEMENT SHALL HAVE A MAX SPACING OF 10’ AND MINIMUM SPACING OF 6’ WHEN MEASURED IN EITHER DIRECTION ALONG THE SLAB UNLESS OTHERWISE NOTED ON PLANS.
4. ALL CONTROL JOINTS SHOULD BE PLACED SO THAT THE TOTAL SQUARE FOOTAGE OF ANY GIVEN PANEL DOES NOT EXCEED 80 SQUARE FEET.
5. CONTROL JOINTS IN NEW CONCRETE SHALL MATCH THE EXISTING CONTROL JOINTS WHERE IT MEETS EXISTING CONCRETE.
PLANT SCHEDULE (NORTH)

<table>
<thead>
<tr>
<th>Item</th>
<th>Common Name</th>
<th>Size</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>B &amp; B 2.5&quot;Cal Single Straight Leader</td>
<td>1</td>
<td>North Hall</td>
</tr>
<tr>
<td>D2</td>
<td>B &amp; B 2.5&quot;Cal Single Straight Leader</td>
<td>2</td>
<td>South Hall</td>
</tr>
<tr>
<td>D3</td>
<td>B &amp; B 2.5&quot;Cal Single Straight Leader</td>
<td>3</td>
<td>Education Building</td>
</tr>
<tr>
<td>D4</td>
<td>B &amp; B 2.5&quot;Cal Single Straight Leader</td>
<td>4</td>
<td>Science Hall</td>
</tr>
<tr>
<td>D5</td>
<td>B &amp; B 2.5&quot;Cal Single Straight Leader</td>
<td>5</td>
<td>Radio Hall</td>
</tr>
</tbody>
</table>

NOTES

1. FIELD VERIFY SURVEY INFORMATION PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE DFDM CONSTRUCTION REPRESENTATIVE.
2. CONSOLE AT SURVEY INFORMATION PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE DFDM CONSTRUCTION REPRESENTATIVE.
3. FIELD VERIFY SURVEY INFORMATION PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE DFDM CONSTRUCTION REPRESENTATIVE.
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8. FIELD VERIFY SURVEY INFORMATION PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE DFDM CONSTRUCTION REPRESENTATIVE.
9. FIELD VERIFY SURVEY INFORMATION PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE DFDM CONSTRUCTION REPRESENTATIVE.
10. FIELD VERIFY SURVEY INFORMATION PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE DFDM CONSTRUCTION REPRESENTATIVE.
11. FIELD VERIFY SURVEY INFORMATION PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE DFDM CONSTRUCTION REPRESENTATIVE.
12. IF EXCAVATION WITHIN 5- FEET OF ANY OTHER CITY OF MADISON STREET TREE IS REQUIRED, CONTRACTOR SHALL NOTIFY THE CITY OF MADISON STREET TREE PROGRAM PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE DFDM CONSTRUCTION REPRESENTATIVE.
13. IF EXCAVATION WITHIN 5- FEET OF ANY OTHER CITY OF MADISON STREET TREE IS REQUIRED, CONTRACTOR SHALL NOTIFY THE CITY OF MADISON STREET TREE PROGRAM PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE DFDM CONSTRUCTION REPRESENTATIVE.
14. IF EXCAVATION WITHIN 5- FEET OF ANY OTHER CITY OF MADISON STREET TREE IS REQUIRED, CONTRACTOR SHALL NOTIFY THE CITY OF MADISON STREET TREE PROGRAM PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE DFDM CONSTRUCTION REPRESENTATIVE.
15. IF EXCAVATION WITHIN 5- FEET OF ANY OTHER CITY OF MADISON STREET TREE IS REQUIRED, CONTRACTOR SHALL NOTIFY THE CITY OF MADISON STREET TREE PROGRAM PRIOR TO THE START OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE DFDM CONSTRUCTION REPRESENTATIVE.

LEGEND

CONSTRUCTION LIMITS
TREE PROTECTION FENCE
SHOVEL-CUT EDGE
BASCOM HILL BURIAL SITE
BOUNDARY
SODDED LAWN
BLUEGRASS SEED
PLANTING BED OR TREE PIT
WITH HARDWOOD BARK MULCH
MINERAL MULCH TYPE 1
MINERAL MULCH TYPE 2
MINERAL MULCH TYPE 3
SHALLOW DEPTH PLANTING
OVER UTILITY VAULT

MATCHLINE SHEET L101
MATCHLINE SHEET L100
1250 S. PARK STREET
BROOKFIELD, WI 53045
PHONE: 414.778.1700
FAX: 414.778.2360
EMAIL: R-D@RINGDU.COM
1. PLANT EACH TREE SUCH THAT THE STEM FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL.

2. Water all plants within 2 hours of installation.

3. Do not place mulch in contact with stems.

4. Do not remove more than 30% of the original top mass.

5. When plants are shipped with a wire basket around the root ball, cut and remove the wire basket.

6. Water all plants within 2 hours of installation.

7. Do not place mulch in contact with stems.

8. Water all plants within 2 hours of installation.

9. Do not cover the top of the root ball with soil.

10. Do not remove more than 30% of the original top mass.

11. Make 1" to 2" deep vertical cuts every 6" around the circumference of the root ball before installation.

12. Plant each tree such that the stem flare is visible at the top of the root ball.

Special Instructions:

- Water all plants within 2 hours of installation.
- Do not place mulch in contact with stems.
- Do not remove more than 30% of the original top mass.
- When plants are shipped with a wire basket around the root ball, cut and remove the wire basket.
- Water all plants within 2 hours of installation.
- Do not cover the top of the root ball with soil.
- Do not remove more than 30% of the original top mass.
- Make 1" to 2" deep vertical cuts every 6" around the circumference of the root ball before installation.
- Plant each tree such that the stem flare is visible at the top of the root ball.
Attachment 4

HIST-A Documents
September 24, 2019

Tyler Howe
Wisconsin Historical Society
816 State St.
Madison, WI 53706-1488

RE: Lathrop/Bascom Utilities Improvements- Project 17/22L
Supplemental submittal-Phase 1/bid 3 – Science Hall work scope

Dear Tyler,

In our previous submittals dated April 18, 2019, April 29, 2019 and May 29, 2019 we described a multi-phased project beginning in 2019 to repair and upgrade UW-Madison's underground utility infrastructure within the Bascom Hill Historic District. These submittals did not include information related to additional activities that will occur near Science Hall.

In particular, the work scope now includes construction of a new cast in place steam tunnel on the south side of Science Hall, extending east toward North Park Street. Construction of the new tunnel will be done using open cut trenching. On average the trench will be 10’ deep and 12’ wide. The existing foundation opening will be used for the new service. Upon completion of this new project scope all landscape features disturbed by the project will be fully restored.

A crack and damage survey will document building conditions at Science Hall, including a visual inspection, digital images, and a written report describing the existing defects pre-construction, and any changes in the building's condition post-construction. The intent of the written report and digital images is to procure a record of the general physical condition of the building's interior and exterior walls, glazing, and foundation and to identify any areas of concern that should be monitored during construction activities to reduce the potential for additional damage.

Please feel free to contact me with follow-up questions or details.

Sincerely,

Gary A. Brown, FASLA
Director, Campus Planning & Landscape Architecture

XC: Daniel Einstein, Brandon Braithwaite
REQUEST FOR SHPO REVIEW AND COMMENT ON A STATE UNDERTAKING

Submit one copy with each undertaking for which our comment is requested. Please print or type. We do not accept Electronic Submittals.

Return to:
Wisconsin Historical Society, Historic Preservation and Public History Division, Preservation Planning, 816 State Street, Madison, WI 53706

Please check all boxes and include all of the following information, as applicable:

I. GENERAL INFORMATION
   ☐ This is a new submittal.
   ☐ This is supplemental information relating to Case #: __________ and title: __________ Phase ____ bid ____ Additional Science Hill work scope __________
   ☐ This project is being undertaken pursuant to the terms and conditions of a programmatic or other interagency agreement.
   The title of the agreement is ___________________________________________
   a. State Agency Jurisdiction (Agency providing funds, assistance, license, permit): UW-Madison
   b. State Agency Contact Person: Gary Brown
   c. Phone: 263-3021  FAX: __________
   d. Return Address: 30 N. Mills, Madison WI Zip Code: 53715
   e. Email Address: gary.brown@wisconsin.gov
   f. Project Name: Lathrop-Basin Reuse Utility Improvements 172HL
   g. Project Street Address: Bascom Hill Historic District on UW-Madison campus
   h. County: Dane  City: Madison  Zip Code: 53715
   i. Project Location: Township _______  Range _______  E/W (circle one), Section _______  Quarter Sections _______
   j. Project Narrative Description—Attach Information as Necessary, including brief project overview and current photos of project property(ies).
   k. Area of Potential Effect (APE). Attach Copy of U.S.G.S. 7.5 Minute Topographic Quadrangle Showing APE.

II. IDENTIFICATION OF HISTORIC PROPERTIES
   ☐ The following historic property(ies) is (are) recorded in the Wisconsin Inventory of Historic Places and is (are) located within the project APE.
   Science Hill
   Attach supporting materials (including copy of Wisconsin inventory database record, current photo(s) of property.

III. FINDINGS
   ☐ No historic property (mentioned in II above) may be affected by the proposed project. Attach supporting material.
   ☐ The proposed undertaking may affect one or more historic property(ies) (identified in II above) located within the project APE. Attach supporting material.
   Authorized Signature: ___________________________  Date: 9/24/19
   Type or print name: Gary Brown

IV. STATE HISTORIC PRESERVATION OFFICE COMMENTS
   ☐ Agree with the finding in section III above.
   ☐ Do not agree with the finding in section III above.
   ☐ The proposed undertaking will not adversely affect one or more historic properties.
   ☐ The proposed undertaking will adversely affect one or more historic properties.
   ☐ SHPO requests renegotiation with the state agency to address the adverse effect.
   ☐ SHPO does not require negotiation with the state agency to address the adverse effect.
   ☐ SHPO objects to the finding for reasons indicated in attached letter.
   ☐ SHPO cannot review until information is sent as follows:

Authorized Signature: ___________________________  Date: __________________

Guidelines to Assist with Your Submission
HIST-A UWSA HISTORICAL EVALUATION FORM

Complete this form for each project in a campus building that is on the UWSA inventory. Provide project details and submit one copy for each action for which review is requested and send to UWSA Historic Preservation Officer: Maura Donnelly mdonnelly@uwsa.edu

Attach supporting material that provides detail of the proposed scope of work such as a work order, Small Project Request, AAPR, etc. Include drawings or photos of existing conditions. Completely fill out the form, including check boxes, which can be checked by right-clicking and selecting properties.

I. GENERAL INFORMATION

☐ This is a new submittal.

☒ This is supplemental information related to another project: Lathrop Drive/Bascom Hill Utility Improvements – Phase I EIA

a. Institution/Campus: UW-Madison

b. Institution Contact Person: Gary Brown, UW-Madison, Campus Planner & WEPA Coordinator

c. Phone: (608) 263-3023 Fax: (608) 265-3139

d. Return Address: 30 N Mills Street, 4th Floor, Madison, WI Zip Code: 53715

e. Email Address: gary.brown@wisc.edu Project Number: DFD Project # 17121

f. Project Name: Lathrop Drive/Bascom Hill Utility Improvements – Phase I Addendum

g. Building Name: Science Hall, 550 North Park Street

h. County: Dane City: Madison Zip Code: 53706

i. Project Location: Township: 07 N Range: 09 □E □W Section: 22, 23 Quarter Section: NE, NW

j. Project Narrative Description – Attach information as necessary.

k. Area of Potential Effect (APE). Attach Copy of U.S.G.S. 7.5 Minute Topographic Quadrangle Showing APE.

II. IDENTIFICATION OF HISTORIC PROPERTIES

☐ Historic Properties are not located within the project APE. Attach supporting materials.

☒ Historic Properties are located within the project APE. Attach supporting materials.

III. FINDINGS

☒ No historic properties will be affected (i.e., none is present or there are historic properties present but the project will have no effect upon them). Attached necessary documentation.

☒ The proposed undertaking will have an effect on one or more historic properties located within the project APE. Attach necessary documentation, as described.

Authorized Signature: GARY A. BROWN Date: 9/24/19

Type or Print Name: GARY A. BROWN

IV. AGENCY HISTORIC PRESERVATION OFFICER COMMENTS

☐ Agree with the finding in Section III above.

☐ The proposed undertaking will result in an adverse effect to one or more historic properties and will require SHPO review.

☐ Requires negotiation with the institution to resolve the adverse effects.

☐ Object to the finding for reasons indicated in attached memo.

☐ Cannot review until information is sent as follows:

Authorized Signature: Date: 

Type or Print Name:
Project Title
Lathrop Drive/Bascom Hill Utility Improvements – Phase 1 EIA Addendum
University of Wisconsin – Madison
DFD Project # 17J2L

Executive Summary

The University of Wisconsin - Madison (UW-Madison) campus is currently served by a variety of thermal, electrical and civil utilities and requires constant improvements to keep the systems maintained. Routine upkeep is no longer sufficient, and the university has identified the Lathrop Drive/Bascom Hill utility project as a critical improvement. The proposed utility improvement project will improve the reliability of the steam, chilled water, civil and electrical distribution systems in this area by replacing and adding the necessary infrastructure to complete the utility transmission in the Bascom Hill area. This narrative outlines a revised scope of work to be included in an addendum to the Environmental Impact Assessment (EIA) published in June 2019. The revised scope of work includes construction of a new cast-in-place steam tunnel south of Science Hall, extending east toward North Park Street and terminating between Science Hall and the North Park Street right-of-way. (see Attachment 3).

A search of the Wisconsin Historic Preservation Database (WHPD) was conducted for any registered resources nearby and/or adjoining the Area of Potential Effect (APE), in Madison, Dane County, Wisconsin. Addendum work takes place within the Bascom Hill area, which is one of the oldest and most historic areas on campus and includes both historical and archaeological elements. One National Landmark is located in the project area, Science Hall. This narrative will focus on potentially affected resources within and nearby Science Hall and Bascom Hill Historic District.

Narrative

Project Description

Project work for the addendum constructs a new thermal utility system (steam) around the southern and eastern edges of Science Hall in the Bascom Hill area of the UW-Madison campus. Attachments 1 and 2 show the project limits associated with the revised scope of work included in the EIA Addendum. Attachment 3 shows specific project components.

As part of Phase 1 of the overall Lathrop Drive/Bascom Hill Utility Improvements, a new cast-in-place steam tunnel will be constructed from northeast of South Hall (in the Bascom Hill area) to between Radio and Science Halls. The revised Phase 1 scope of work includes construction of a steam tunnel south of Science Hall, extending east toward North Park Street and terminating between Science Hall and the North Park Street right-of-way. This steam tunnel will provide high pressure steam, low pressure steam, pumped condensate, and compressed air. The existing foundation opening will be utilized for Science Hall for new service; no new connections will be made to Science Hall. All work for constructing the steam tunnel will be done using open cut trenching with soil retention to minimize the width of the trench.

Pedestrian and bike traffic will require various detours and rerouting at various times throughout the construction of the steam tunnel. A sidewalk wrapping around the southern end of Science Hall will be closed for pedestrian use during construction as well as the south-bound lane on North Park Street.
These closures will be temporary and appropriate signage will be put up well in advance of the closures. Existing pathways will be utilized as much as possible throughout the project area (estimated 95%).

Care will be taken to preserve the historical landscape elements in the area of the project. There are two trees and several shrubs in the project area that will need to be removed. These will be restored or replaced with those of similar character and species to maintain the visual aesthetic of this area of campus. Materials used will additionally act as storm water mitigation in the area to address known storm water issues. All plantings will be restored in-place, with historically-appropriate materials. Landscape restoration plans and tree protection plans are included in Attachment 3.

Upon completion of the revised scope of work, all areas disturbed by the project will be fully restored, including roadways, gutters, terrace areas, street trees, sidewalks, landscaping features, and site structures.

Wisconsin Historic Preservation Database Search Results

A search of the Wisconsin Historic Preservation Database (WHPD) was conducted on November 6, 2018 for any registered sites nearby and/or adjoining the APE, in Madison, Dane County, Wisconsin. The project area associated with the EIA Addendum does not include archaeological elements.

Bascom Hill Historic District, which is listed on both the National and State Registers of Historic Places, includes nineteen (19) buildings listed on the National Register. These sites include Science Hall. No above-grade portions of Science Hall will be disturbed during construction.

The design consultant will coordinate with UW-Madison’s Campus Planning and Landscape Architecture staff on the final design and construction work within the Historic District, in the area of Science Hall. Upon completion of the project, all areas within the Historic District disturbed by the project will be fully restored, including roadways, gutters, terrace areas, streets, trees, sidewalks, landscaping features, and site structures. Care will be taken to maintain the historic character of the project area.

Additional details regarding project activities around Science Hall are included below:

1. All work will be done in open cut trenches with soil retention to minimize the width. On average, trenches will be roughly 10’ deep x 12’ wide. Any open trench or pit area will be dug with a backhoe.
2. New connections will not be made to Science Hall. The existing foundation opening will be utilized for new services.
3. A crack and damage survey will document building conditions at Science Hall, including a visual inspection, digital images, and a written report describing the existing defects pre-construction, and any changes in the building’s condition post-construction. The intent of the written report and digital images is to procure a record of the general physical condition of the building’s interior and exterior walls, glazing, and foundation and to identify any areas of concern that should be monitored during construction activities to reduce the potential for additional damage.

Resources adjoining or nearby the project area are listed on several historic databases, which include: one (1) AHI resource contributing to, eligible for, or listed on the National Register and one (1) ASI resource. All resources adjacent to the project work shall be inspected and the condition of the
structures, any damage incurred during construction, and a survey shall take place 1 to 3 months after construction is completed to allow time to observe delayed ground response.

Resources pertaining to the project area include:

<table>
<thead>
<tr>
<th>Database</th>
<th>Resource (Reference Number)</th>
</tr>
</thead>
</table>
| Wisconsin Archaeological Site Inventory (ASI) | • State Site #: DA-0573, ASI #: 9945  
  o Bascom Hill Mounds (North Hall Mounds)  
  o Nearby project boundary  
  o Not in National Registry  
  o Burial Number: BDA-0417  
  o “This mound group consisted of two linear and one conical mound and one panther (or turtle) effigy mound. It was formerly broken into two separate groups in the ASI (Bascom Hill and North Hall). The mounds were located in close proximity and formed a single group. Accounts concerning the form of the effigy on the hill vary.  
  o The Bascom Hill sub-group originally contained one conical and one panther (or turtle) effigy mound. They were destroyed in 1859 by the construction of Bascom Hall on the University of Wisconsin-Madison campus. The North Hall sub-group contained two linear mounds. They were destroyed by grading in 1851 and were said to have been located between North Hall and the lake bank. They were described as quite prominent.” |
| National Registry/State Registry (NR/SR) | • Bascom Hill Historic District; NR Reference Number 74000065; This NR site includes 37 structures and properties which surround what was once known as “College Hill.” The district was updated in 2012. The district contains the five oldest buildings built for UW-Madison including Bascom Hall, North and South Halls, the Assembly and Library Hall, and the Mining Engineering and Heating Station. The campus continued to expand and with it the Bascom Hill Historic District, which now includes those sites most associated with campus life. The district represents the most historic cluster of institutional buildings in Wisconsin. More importantly, its sensitive mix of urban and natural spaces forms a memorable and coherent district. See Attachment 4 for the district boundaries. |
| Wisconsin Architecture and History Inventory (AHI) | • Science Hall (National Landmark)  
  o Built 1887  
  o Richardson Romanesque style |

Properties located nearby or adjoin the project site and are not located within the project’s APE are discussed in detail in the original Hist-A Narrative.
Good afternoon Daniel:

Thank you for the detailed recordation of our consultations regarding the Lathrop-Bascom utilities Science Hall area project. As per my email dated 31 Jan 2020, we have reviewed and concur with the initial Science Hall structural survey. We further concur with the reported recommendations for monitoring locations during the construction phase. It is also the opinion of the WI SHPO you have addressed our pre-construction concerns and observations.

Thanks,

Tyler

Tyler B. Howe, PhD
Compliance Section Manager
State Historic Preservation Office

Wisconsin Historical Society
816 State Street
Madison, WI 53706
(608) 264-6508 (O)
Email: tyler.howe@wisconsinhistory.org

Wisconsin Historical Society
https://www.wisconsinhistory.org/
Purpose of Visit:
Science Hall was built in 1887 and is a masonry and steel building. It was designated a National Historic Landmark (Listed in 1993 as building number 93001616). New steam conduit will be installed around 15 feet to the south of the building. Due to the proximity and depth of the excavation in addition to the historical status of the building there was some initial concern that the excavation process may impair the existing structure. raSmith was asked to visit the site and provide a structural review of the existing building, both inside and out, to gage the integrity of the existing structure, and to document any areas of concern going forward. While on site it was discussed that there will be vibration and crack monitoring during the construction process.

Upon completion of the review mainly on the south and west sides of the building, there were no areas of major structural concern. There were some spots both inside and outside where there was cracking, but nothing that appeared to impair the integrity of the structure.

The following is a list of observations:

<table>
<thead>
<tr>
<th>Item #:</th>
<th>Area/Room:</th>
<th>Comments:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Exterior</td>
<td>Typical building exterior face at grade level showing existing stone block façade.</td>
</tr>
<tr>
<td>2.</td>
<td>Exterior</td>
<td>Stone block façade mortar is deteriorating. Not a structural concern, but at some point in the future it should be repointed.</td>
</tr>
<tr>
<td>Item #:</td>
<td>Area/Room:</td>
<td>Comments:</td>
</tr>
<tr>
<td>---------</td>
<td>----------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3.</td>
<td>Exterior sill</td>
<td>Crack in window sill. This is a non-structural crack. There were a number of these</td>
</tr>
<tr>
<td>4.</td>
<td>Exterior Brick</td>
<td>Minor cracking in the brick façade. This is not a structural concern.</td>
</tr>
<tr>
<td>5.</td>
<td>Exterior Lintel</td>
<td>Exterior stone lintel on one of the towers has a crack near the bearing end. The crack had been filled, but the fill has deteriorated. This crack should be monitored during the construction process specifically as it is at the bearing end of the lintel.</td>
</tr>
<tr>
<td>6.</td>
<td>Interior Ceiling</td>
<td>Minor cracking was noticed in the ceiling of a few of the rooms. These cracks are hairline and not a structural concern. That being said, with the ceiling being constructed of brick, it is important to monitor cracking in the ceiling during construction.</td>
</tr>
</tbody>
</table>
Conclusion:
Science hall appeared to be in good shape overall with very little cracking. Given that crack and vibration monitoring will be taking place during the construction process, and new cracks or other issues should be visible if they should appear. That being said, care should be taken to avoid further damage to Science Hall. Considering the depth of the excavation, temporary soil retention will need to be installed. Ultimately the selection, design, and installation of soil retention is the responsibility of the contractor. Selection and installation of the system should take into account both the age and historic nature of the building. Hammering systems in such as sheet piling or H-piling may provide an increased risk to the building during installation, so additional care should be taken if the contractor should choose to proceed with those methods of soil retention. Crack and vibration monitoring are not methods of crack avoidance per se, but serve to provide an update on the intrusiveness of the construction process on adjacent structures. Thus the contractor should take the proper precautions to avoid damage to the existing building in addition to the continual monitoring of the building.

Disclaimer:
Existing condition observations made and reported within the context of this report were based on a visual inspection only and did not contemplate or involve the dismantling or moving of any objects or portion of the premises. Additionally, although elements of the façade were observed an in-depth façade inspection was not performed. Latent and concealed conditions, defects and deficiencies are excluded from our review. raSmith shall have no liability for concealed from view or inaccessible conditions which were not or were not able to be directly observed. Our observations are limited to the conditions as they existed on the date of our observation, the real property and not the review of any personal property.

END OF REPORT
Good afternoon Daniel:

Thank you for the detailed recordation of our consultations regarding the Lathrop-Bascom utilities Science Hall area project. As per my email dated 31 Jan 2020, we have reviewed and concur with the initial Science Hall structural survey. We further concur with the reported recommendations for monitoring locations during the construction phase. It is also the opinion of the WI SHPO you have addressed our pre-construction concerns and observations.

Thanks,

Tyler

Tyler B. Howe, PhD
Compliance Section Manager
State Historic Preservation Office
Wisconsin Historical Society
816 State Street
Madison, WI 53706
(608) 264-6508 (O)
Email: tyler.howe@wisconsinhistory.org

Wisconsin Historical Society
https://www.wisconsinhistory.org/
Hi Tyler,

Our EIA consultant is looking for documentation that we have conducted an historic review for this bid package 3 project.

Just trying to tie up the review process by confirming that we addressed your concerns raised by our initial review request (dated Sept 24, 2019) and your initial response (October 16, 2019).

We also responded to your Dec. 9, 2019 letter, by meeting as requested, and following up with submittal of a pre-construction structural assessment.

Would it be possible at this stage for you provide us with a letter/confirmation indicating that the project has been reviewed, and that your pre-construction design concerns have been addressed, with the understanding that as the project proceeds the following activities will occur (per attached):

- “Settlement monitoring ” (specification Section 02 67 00). This monitoring program, performed by a third-party consultant, will use seismographs to make vibration and noise observations. A licensed land surveyor will also set survey monuments on the listed buildings to monitor settlement before, during and after the project. Vibration or movement limiting values are detailed in the specification.

- A “Crack and Damage Survey for existing conditions” (specification Section 02 22 15) to document current conditions and any changes after construction is completed.

Thanks much,
Daniel

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**Daniel Einstein**  
Historic and Cultural Resources Manager  
Campus Planning & Landscape Architecture  
Division of Facilities Planning & Management  
University of Wisconsin-Madison  
Office: (608) 265-3417
Attachment 5

Legal Notice and Publication Affidavit
LEGAL NOTICE

Availability of Draft Environmental Impact Assessment Addendum
Lathrop Drive/Bascom Hill Utility Improvements - Phase 1
DFD Project # 17J2L
University of Wisconsin – Madison
Bascom Hill Area: Science Hall

An addendum to Final Environmental Impact Assessment (EIA): Lathrop Drive/Bascom Hill Utility Improvements – Phase I, published June 2019, was prepared in accordance with the Wisconsin Environmental Policy Act (WEPA), Wisconsin Statutes 1.11, and UWSA guidelines (Board of Regents’ Resolution 2508, November 6, 1981). University of Wisconsin – Madison (UW-Madison) Facilities Planning and Management has retained Ayres Associates on behalf of the University of Wisconsin System Administration (UWSA) to prepare this EIA addendum.

The UW-Madison campus is currently served by a variety of thermal, electrical, and civil utilities and requires constant improvements to keep the systems maintained. Routine upkeep is no longer sufficient, and the university has identified the Lathrop Drive/Bascom Hill utility project as a critical campus improvement.

The proposed utility improvement project will improve the reliability of the steam, chilled water, civil and electrical distribution systems in this area by replacing and adding the necessary infrastructure to complete the utility transmission in the Bascom Hill area. An additional scope of work that was not previously addressed in the June 2019 Final EIA document will be incorporated into Phase I of the project and is addressed in the EIA addendum. The additional scope includes construction of a new cast-in-place steam tunnel south of Science Hall, extending east toward North Park Street and terminating between Science Hall and the North Park Street right-of-way. Phase I of the Lathrop Drive/Bascom Hill Utility Improvement Project is divided into three phases: bid packets (BP) 1 through 3. The additional scope of work to be assessed in this addendum is included in BP3.

The purpose of the Draft EIA addendum is to identify potential impacts of the project on the physical, biological, social, and economic environments surrounding Science Hall. The Draft EIA addendum describing these potential impacts is being made available to the public and to appropriate federal, State, and local agencies for a 15-day review period starting October 11, 2019. Copies of the document will be available for review at the UW-Madison’s Helen C. White Library and Madison Public (Central Branch) Library, and on the following project website:

http://www.ayresprojectinfo.com/Lathrop-Bascom-Utility

If you are interested in this project or have any information relevant to it, we welcome your comments, suggestions, or other input. For consideration in the Final EIA, please submit your comments in writing no later than 6:00 p.m., October 26, 2019. Comments can be sent to:

Ben Peotter, PE
Ayres Associates
5201 E. Terrace Drive, Suite 200
Madison, WI 53718
PeotterB@AyresAssociates.com

Comment forms are available via the project website.
Capital Newspapers Proof of Publication Affidavit

Ad #: 3770832  Price: $98.81  Ad ID: DEIA Addendum
Retain this portion for your records.
Please do not remit payment until you receive your advertising invoice.

Mail to:

AYRES ASSOCIATES
Keely Marsik
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701

Availability of Draft Environmental Impact Assessment Addendum
LaFreniere Drive/Barson Hill Utility Improvements - Phase 2
BPS Project # 19752
University of Wisconsin - Madison
Bascom Hill Area: Science Hall
An addendum to Final Environmental Impact Assessment (EIA): LaFreniere Drive/Barson Hill Utility Improvements - Phase 1; published June 2019, was prepared in accordance with the Wisconsin Environmental Policy Act (WEPA), Wisconsin Statutes, s. 95.52, and the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

The purpose of the Draft EIA addendum is to identify potential impacts of the project on the physical, biological, social, and economic environments surrounding Science Hall. The Draft EIA addendum describing these potential impacts is being made available to the public and to appropriate federal, state and local agencies for a 15-day public review period.

A copy of this document will be available for review at the UW-Madison Libraries, the C. White Library and Madison Public (Central Branch) Library, and on the following project webiste:
http://www.ayresassociates.com/LaFreniere-Barson-Hill-Utility

If you are interested in this project or have any information relevant to it, we welcome your comments, suggestions, or other input. For consideration in the Final EIA, please submit your comments in writing no later than 6:00 p.m., October 26, 2019. Comments can be sent to:
Bee Pfeiffer, P.E.
Ayres Associates
5201 E. Terrace Drive, Suite 200
Madison, WI 53716
pfeiffer@ayresassociates.com
Commercial forms are available via the project website.

Published: 9/7/2019

Arlene Staff
Principal Clerk

being duly sworn, doth depose and say that
he (she) is an authorized representative of
Capital Newspapers, publishers of
Wisconsin State Journal
a newspaper, at Madison, the seat of government of said State,
and that an advertisement of which the annexed is a true
copy, taken from said paper, was published therein on
October 7th, 2019

Subscribed and sworn to before me on

Notary Public, Wisconsin

My Commission expires

September 18, 2023