NEPA ENVIRONMENTAL ASSESSMENT

Temple Hall Addition & Renovation Project

Missouri State University

Springfield, Missouri

March 2023

HRSA Project CE1HS47040

NIST Project 60NANB23D013

Introduction

The Health Resources and Services Administration (HRSA) of the Department of Health and Human Services (HHS) provides funding through the FY 2022 Consolidated Appropriations Act (P.L. 117-103) for congressionally directed spending projects that relate to the construction and renovation (including equipment} of health care and other facilities. This proposed activity will be supported through funding awarded by HRSA.

Missouri State University (MSU) has applied for this HRSA award. MSU proposes to use the HRSA funding to construct a 4-story addition onto an existing University building, as well as renovation of selected areas within the existing building footprint. Temple Hall is an existing building located at the corner of Briggs Street and John Q. Hammons Parkway on the campus of Missouri State University in Springfield, Missouri. The addition to the building will be located at the northeast building corner. The property is owned by Missouri State University. The building addition is planned to be four floors and a basement approximately 170 feet x 86 feet. Each floor will be approximately 15,000 square feet. There will also be some limited work done to the existing portions of Temple Hall as part of the construction scope of work.

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act, the Council on Environmental Quality regulations for implementing NEPA (40 CFR Parts 1500 through 1508) and the HHS General Administration Manual Part 30 Environmental Protection (February 25, 2000) to determine if the proposed Temple Hall Addition will have a significant impact on the quality of the human environment.

Purpose and Need

The purpose of the project is to consolidate department activities that are not currently located in Temple Hall and to provide additional, state of the art teaching and research laboratories. The spaces will include teaching and research labs, support space, offices, student study and collaboration areas, additional restrooms, and departmental offices.

This project will benefit the University, including students, staff, and faculty, and the greater Springfield community. The College of Natural and Applied Sciences houses academic and research programs in health and life sciences, such as biology, chemistry, biochemistry, physics, astronomy, materials science, geography, geology, mathematics, computer science and related fields. MSU's enrollment in science, technology, engineering, and mathematics (STEM) fields have more than doubled in the last 50 years. Despite this growth, substantial portions of MSU's original STEM, health and life-science facilities have remained mostly unaltered for decades. These facilities no longer meet modern scientific and technological needs for workforce training, education, and research.

Spaces for student success and community partner offices will also be included. The College of Natural and Applied Sciences Master Plan (https://architect.missouristate.edu/OurVision/Springfield/CNASMasterPlan.pdf) (Sept 2020) provided documentation of the areas that the existing facility was lacking adequate space for current teaching needs and identified the building addition which address these deficiencies.

Alternatives

No Action

A 'No Action' alternative would prevent any expansion of the sciences programs, leaving the College unable to meet the demand for modern teaching spaces, and would result in increasing operational costs to operate older failing building systems. Over time this is not a sustainable option.

Alternatives to the Proposed Project Evaluated but not Considered for Further Review

Various alternatives to the current site selection were considered during the Master Plan process. (see Appendix A Site Analysis from Master Plan). A 'New Building' alternative was considered to meet the current programming needs but it would have either required the demolition of the existing building or construction on existing open space. Demolition would create a significant disruption and discontinuance of current science programs for the duration of the work. The two sites considered for new construction were determined to be cost prohibitive and separated the various departments which is counter to the college's goal for more collaboration. There were also two addition locations considered, one on the south was rejected due to the amount of infrastructure sub-surface which would require relocation and the final determination on the northeast corner of the building.

Proposed Action

This proposed Temple Hall building addition with renovation takes advantage of a structurally-sound existing building and an open space adjacent to the building that will provide needed space to consolidate laboratory spaces and improve the building's operational performance. The undertaking consists of the construction of an addition to the northeast corner of Temple Hall (910 S. John Q. Hammons Parkway), to provide additional laboratory, office, and support space in the existing science building. This addition will obscure the original east entrance and require demolition of portions of the north and east facades and removal of the original landscape features at the northeast corner of the building.

This is the most cost- and time-effective alternative to meet the needs of students, the University, and the state to provide modern science education.

The existing building will remain functional during the demolition and construction of the new addition. Occupants immediately adjacent to the areas of demolition have been relocated and the auditoriums have been removed from scheduling until the addition will be occupied. The transitions between the existing building and new addition will be completely sealed with water/sound proof partitions until the work to transition into the new addition has been completed. The work area will be isolated from the walking mall with fencing and inaccessible drives to prevent impact on the campus community.

Existing Conditions

The proposed project site is on the northwest corner of the existing Temple Hall, and currently consists of a concrete paved open space with ground-level planters and a small lawn area. Temple Hall itself is in the south-central portion of the Missouri State University campus. Most of the University's approximately 225-acre campus extends to the north of the site. (See

Appendix B for Site figures, including a site location map and aerial photo outlining the project area.) Most of the area being utilized for the addition of the building addition has been under concrete pavement since the original construction of Temple Hall in 1971, so no significant change to the volume of surface under pavement is anticipated.

The project property is on the southeastern portion of the 35.7-acre parcel 1324413018 as recorded by the Greene County Assessor's office. The Assessor's records show the property as being owned by the Board of Governors of Missouri State University.

The project site is situated on the southern portion of a 225-acre urban college campus. Surrounding the campus is a historically residential and light commercial area of central Springfield, Missouri.

Adjacent and surrounding properties are as follows:

- Along the southern edge of the subject site is a vacated city street remnant: Briggs Street. South of that is MSU parking lot #4, and south of Lot #4 is Grand Street, a 4-lane east west roadway;
- To the west is John Q. Hammons Parkway and additional paved University parking;
- North of the subject site are campus features associated with the west mall, including sidewalks, a brick plaza area, grass lawn areas with outdoor tables/seating, and a large fountain. Directly north of the mall area is Meyer Library; and
- To the east is Plaster Stadium, the University's football stadium with concrete grandstand seating on the east and west sides. National Avenue, a major north-south traffic artery (average daily traffic approximately 35,500), is immediately east of the project site. Several commercial/office facilities are located along the east side of National, with the Roundtree neighborhood occupying the area farther east.

The subject property, like much of the MSU campus, consisted primarily of single-family residences through the 1960s. A Sanborn Fire Insurance map dated 1933 shows residential properties populating the area on both sides of Grand Street *(Sanborn Fire Insurance Map from Springfield, Greene County, Missouri. Sanborn Map Company, - Jan 1950. Map.* https://www.loc.gov/item/sanborn04881_008/). A filling station with three aboveground tanks is shown on the southwest corner of Grand and National. This location is currently a large stormwater detention basin. No historic industrial facilities were present in the immediate area of the site.

On the Springfield, Missouri 7.5 Minute Topographic Quadrangle map (United States Survey, 1996), the site is located on the southern edge of the southeast corner of Section 24, Township 29 North, Range 22 West, at an elevation of approximately 1,320 feet above mean sea level. Site location coordinates are Latitude 37° 11' 53" N - Longitude 93° 16' 51" W.

The site is located in the northern portion of the Fassnight Creek watershed. The surface topography at the site is a gentle slope toward the south and east. Storm water drainage at the site is to the south and east, eventually into a university-owned stormwater detention basin southwest of the intersection of National Ave. and Grand St. The detention basin discharges to

Fassnight Creek, located approximately 0.7 miles south of the site. Fassnight Creek flows west and south approximately 5 miles to Wilsons Creek, a tributary of the James River.

The city of Springfield sits on the Springfield Plateau section of the Ozarks Highlands physiographic province, which is underlain by essentially horizontal Ordovician-age limestone, sandstone, and dolo- stone bedrock. The southwest Missouri region is characterized by karst geology, in which features like caves, springs, and sinkholes are common. Examples of these features are present in Springfield, but none of these features have been identified on the subject site. Depth to limestone bedrock in the immediate area of the site typically ranges from eight to 15 feet below ground surface (bgs). Local soils are typically characterized by a high clay content resulting from the weathering of the limestone bedrock.

Affected Environment and Environmental Consequences

Shorelines, Beaches and Dunes, Estuary, Wetlands and Floodplains

A review of the US Fish and Wildlife Service (USFWS) *National Wetlands Inventory* map of the area, available online at *http://www.fws.gov/wetlands/Data/Mapper.html* confirmed that wetland areas are not located on or in the vicinity of the site.

According to the Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map, the site is not located within a flood zone (Community-Panel Number 29077 C0334E, dated December 17, 2010). A copy of the FEMA Flood Insurance Rate Map showing the site location is included with other site figures in Appendix B.

There are no shoreline, beach and dune, or estuary properties within or near the subject property.

No Action Alternative

Under the No Action alternative, the Project site would remain in its current hydrological state. No impact to wetlands, floodplains, or waterways would occur under this alternative.

Proposed Temple Hall Addition

No evidence of potential jurisdictional waters, including wetlands or floodplains, were found on the Project site. Under the proposed Project, the Project site would be graded, and a building addition would be constructed. No impacts to jurisdictional waters, including wetlands, would occur under the proposed Project.

Vegetation and Wildlife Resources

Vegetation and wildlife resources associated with this site were determined through assessment of information available for wilderness areas, wildlife preserves, and threatened/endangered species.

Wilderness Areas

The National Wilderness Preservation System {NWPS, http://www.wilderness.net/nwps) was

reviewed to determine the proximity of officially designated wilderness areas. The NWPS is comprised of lands designated as wilderness areas by the United States Forest Service (USFS), United States Fish and Wildlife Service (USFWS), United States Bureau of Land Management (BLM), and the National Park Service (NPS).

There are currently eight wilderness areas located in the State of Missouri. These eight wilderness areas (Paddy Creek, Bell Mountain, Rockpile Mountain, Mingo, Irish, Devils Backbone, Hercules-Glades, and Piney Creek) are all found in the southern part of the state; four of them are located along the southern border of the state. According to the NWPS information reviewed, the site is not located in a designated wilderness area.

Designated wilderness areas are also delineated on USGS 7.5-minute series topographic quadrangle maps. A review of the USGS Springfield Quadrangle map determined that the site is not located within a designated wilderness area. In addition, a review of the Delorme *Missouri Atlas & Gazetteer,* 1998 edition, did not indicate the presence of a designated wilderness area in the site vicinity.

Wildlife Preserves

There are eight designated National Wildlife Refuges (NWRs) in the State of Missouri, including the Squaw Creek NWR, the Great River NWR, the Swan Lake NWR, the Clarence Canyon NWR, the Big Muddy NWR, the Pilot Knob NWR, the Mingo NWR, and the Ozark Cavefish NWR.

The site is located in Springfield. The nearest NWR to the site is the Ozark Cavefish NWR, which is located in Lawrence County approximately 20 miles west of Springfield. Therefore, the site is not located within or adjacent to an officially designated wildlife preserve.

Officially designated wildlife preserves are also delineated on USGS 7.5-minute series topographic quadrangle maps. Review of the USGS Springfield Quadrangle map determined that the site is not located within a designated wildlife preserve. Additionally, a review of the Delorme *Missouri Atlas & Gazetteer,* 1998 edition, did not indicate the presence of a designated wildlife preserve in the site vicinity.

Listed/Proposed Threatened/Endangered Species or Designated Critical Habitats

In accordance with requirements in Section 7 of the Endangered Species Act (Act) of 1973 (16 U.S.C. §§ 1536) to determine potential impacts to threatened or endangered species, a Heritage Review was requested through the Missouri Department of Conservation's (MDOC) website (https://naturalheritagereview.mdc.mo.gov). This Heritage Review process includes information from both state (MDOC) and federal (USFWS) databases.

No Action Alternative

Under the No Action alternative, the Project site would remain in its current state. No impact to vegetation, habitat, or wildlife resources would occur under this alternative.

Proposed Temple Hall Addition

No protected species or restricted habitats were identified at the specific project site. The MDOC

Heritage Review noted the site is within the known range of Indiana and Northern long eared bats, as well as the Missouri Bladderpod. The site is also located within the recharge area of the Ozark Cavefish.

Best management practices are recommended to minimize any negative impacts of construction. The project will primarily occur on existing paved areas; no significant vegetation removal is anticipated. Best Management Practices (BMPs) prescribed by the City of Springfield Environmental Services BMP manual (https:/ /www.springfieldmo.gov/DocumentCenter/View/33362/BMP-Manual-?bidId=) will be utilized as appropriate during project construction.

A copy of the Heritage Review document (dated December 12, 2022) is included in Appendix C.

Land Use and Zoning

According to the online city of Springfield zoning map, the site is currently zoned as GI (Government/Institutional). (http:/ /maps.springfieldmo.gov/zoning/).

No Action Alternative

Under the No Action alternative, the Project site would remain in its current land use. Therefore, no land use or zoning would occur under this alternative.

Proposed Temple Hall Addition

The proposed Temple Hall Addition is consistent with local land use and zoning requirements, as well as associated MSU planning documents for the campus.

Hazardous or Toxic Substances/ Solid Waste Management

Chemical waste generated in Temple Hall laboratories is managed through the University's environmental management program to ensure proper handling and disposal. This program is operated in compliance with applicable US Environmental Protection Agency (EPA) and Missouri Department of Natural Resources (MDNR) regulations. Any waste generated in laboratories in the Temple Hall addition will be managed under the same program.

Wastes generated during construction will consist of solid construction materials (wood, metal, masonry, etc.) and surplus construction chemicals (paint, caulk, epoxy). The construction contractors will be responsible for disposal of construction-generated wastes in accordance with applicable laws. The completed project is not anticipated to generate any significant waste, solid or chemical.

A preliminary investigation was conducted to identify any hazardous materials in the areas to be demolished. These reports are located in Appendix D. Further testing on materials not previously tested will be conducted once the project has been approved to commence by the grant providers due to it requiring a destructive process. Destructive measures have been prohibited until the Section 106 MOA has been completed. The university will have the same On-Call Asbestos contractor who provided the report in Appendix D prepared to do the work once funding

has been released.

No Action Alternative

Under the No Action alternative, the existing Temple Hall would not be physically impacted. Therefore, no impact to hazardous materials would occur under this alternative.

Proposed Temple Hall Addition

Because the proposed Temple Hall Addition does include some renovation of the existing Temple Hall Building that is pre-1978 construction, preliminary testing for lead-based paint and asbestos containing materials did show the likelihood for the presence of these materials. Consequently, MSU will provide assurances that all hazardous materials encountered in the implementation of this action will be handled and disposed of in accordance with federal, state, and local requirements.

Water Resources

Shallow groundwater typically occurs in the area in a discontinuous perched condition at the soil/bedrock interface, at depths of less than 20 feet below ground surface (bgs). Missouri Department of Natural Resources' (MDNR) regulations, as well as minimal availability, preclude use of this groundwater resource. Groundwater of usable quantity and quality occurs at depth of greater than 400 feet bgs, though MDNR regulations also restrict the installation and placement of wells in this aquifer (http://www.dnr.mo.gov/env/wpp/lawsregs.htm).

No drinking water wells are present in the area of the site. All utilities for the site (and the surrounding area), including water and sewer, are provided by Springfield City Utilities (http://www.cityutilities.net/about/about.htm). No water supply wells are present on the site, and no on-site wastewater treatment facilities are present.

No Action Alternative

Under the No Action alternative, no ground disturbance would occur. Therefore, no impact to water resources or waters supply infrastructure would occur under this alternative.

Proposed Temple Hall Addition

The proposed action would have a limited extent of ground or subsurface physical impact so consequently there would be no impacts to surface or groundwater resources or to the water supply infrastructure.

Environmental Justice (Executive Order 12898)

Executive Order 12898 requires assessment of the potential for the project to result in adverse effects on the health or environment of minority and low-income populations. The project site is located in central Springfield, in a historically residential and light commercial area. National Avenue, which serves as the eastern boundary of the MSU campus, is the primary commercial corridor in the area, consisting largely of light retail and restaurants abutting and extending north from the campus. Primary land use surrounding the campus is

residential, consisting of well-established neighborhoods. Some commercial activity, consisting primarily of retail and dining, is present around the perimeter of the MSU campus.

Nearest the site is the Phelps Grove Neighborhood, occupying approximately 300 acres bounded by National Avenue on the east, Grand Street on the north, Campbell Street on the west, and Brookside Drive/Bennett Street on the south. Residence types consist of primarily of single-family homes, though there are some high-density/multi-tenant units in the neighborhood. The historic nature of the Phelps Grove Neighborhood combined with its location make it a desirable place to live. The average single- family home price in 2012 was approximately $131,100 (City of Springfield Planning & Development), in comparison to the Springfield average of $133,000.

The Phelps Grove Neighborhood occupies the northeastern portion of zip code 65807. A review of ethnicity and income information from the 2010 Census for zip code 65807 reflects an approximately 85% white population, with a median income of $42,355 (http://www.zipdatamaps.com/65807). Based on the census data the project is not expected to cause disproportionate impact to minority or low- income populations.

Action Alternative

Under the No Action alternative, there would be no impact to low-income or minority populations given the low percentage in the project area.

Proposed Temple Hall Addition

The proposed action would not have a disproportionate effect on low income or minority populations given the location and low subject population in the area.

Streets, Traffic, Parking

No Action Alternative

Under the No Action alternative, no physical impacts would occur in the area and therefore there would be no impacts to streets, traffic, or parking.

Proposed Temple Hall Addition

The proposed project is expected to temporarily increase construction traffic along the immediately adjacent sections of John Q. Hammons Parkway and Grand Street. This will discontinue once the project is complete. The project itself is not expected to cause an increased volume of other traffic, either during the project or after completion. Existing university parking is sufficient to accommodate any increase in need due to building expansion.

Air Quality/ Noise Pollution

Existing noise sources in the project site area are primarily roadway traffic from the adjacent Grand Street and nearby National Avenue. Other noise sources include University campus and local neighborhood activities, and occasional aircraft overflights. Railroad noise is not a significant factor; the nearest rail line is approximately 0.5 miles east of the site and carries minimal traffic.

EPA's air toxics regulation for asbestos is intended to minimize the release of asbestos fibers during activities involving the handling of asbestos.

Air toxics regulations under the Clean Air Act specify work practices for asbestos to be followed during demolitions and renovations of all facilities, including, but not limited to, structures, installations, and buildings (excluding residential buildings that have four or fewer dwelling units). The regulations require a thorough inspection where the demolition or renovation operation will occur. When buildings are under renovation, they are not being demolished, but asbestos-containing building material is being removed or disturbed. Performing the work in accordance with the Asbestos NESHAP helps to ensure that areas in use during the renovation are not contaminated and that the area under renovation, when it is complete, is also free of contamination. Missouri State University will follow all the requirements under NESHAP and State air quality requirements to ensure there are no air quality impacts resulting from the renovation of the existing structure.

CEQ recently released guidance on conducting climate change analyses and Greenhouse Gas (GHG) emissions in NEPA reviews, whereby agencies should consider: (1) the potential effects of a proposed action on climate change, including by assessing both GHG emissions and reductions from the proposed action; and (2) the effects of climate change on a proposed action and its environmental impacts. Analyzing reasonably foreseeable climate effects in NEPA reviews helps ensure that decisions are based on the best available science and account for the urgency of the climate crisis.

Buildings use large amounts of energy for heating, cooling, lighting, and other functions. "Green building" techniques and retrofits can allow new and existing buildings to use less energy to accomplish the same functions, leading to fewer greenhouse gas emissions. Based on the preliminary designs of this proposed addition and the nature of the construction, the follow techniques to improve building energy efficiency are being incorporated to ensure the GHG emissions are reduced to a negligible level for this proposed action - improved insulation; energy-efficient heating, cooling, ventilation, and refrigeration systems; efficient fluorescent lighting; passive heating and lighting to take advantage of sunlight; and the purchase of energy-efficient appliances and electronics.

No Action Alternative

Under the No Action alternative, no physical impacts would occur in the area and therefore there would be no impacts to existing noise conditions.

Proposed Temple Hall Addition

The project area is located within an air quality attainment area (Springfield-Greene County), which means air pollution levels for airborne concentrations of criteria pollutants do not exceed the National Ambient Air Quality Standards (NAAQS). Any air quality impacts from the proposed project would be short-term, resulting from construction activities associated with the project. Based on this, increased emissions of EPA criteria pollutants from use of the proposed facility are not anticipated. The most notable noise impacts from the proposed project would be short-term construction activities associated with the project.

Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA), and its implementing regulations,

36 CFR Part 800 "Protection of Historic Properties," requires that federal agencies must take into account the effects of their actions on historic properties. Historic properties are defined as those resources that are listed in or eligible for listing in the National Register of Historic Places (NRHP). Compliance with Section 106 of the NHPA is required for any federal undertaking, which is defined as a project that:

- Is located on federally managed lands;
- Receives federal funding; or
- Requires a federal license or federal permit.

To determine whether an undertaking could affect NRHP-listed or -eligible properties, cultural resources (including archaeological, historical, and architectural properties) must be inventoried and evaluated for listing in the NRHP. For a property to be considered for inclusion in the NRHP, it must meet the criteria for eligibility detailed in 36 CFR § 60.4, as follows:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
>
> (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> (b) that are associated with the lives of persons significant in our past; or
>
> (c) that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or that possess high artistic values or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> (d) that have yielded, or may be likely to yield, information important in prehistory or history.

Among other criteria considerations, a property that has achieved significance within the last 50 years is not considered eligible for inclusion in the NRHP unless certain exceptional conditions are met.

Under 36 CFR § 800.5(1), an adverse effect to a historic property occurs when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects may include reasonably, foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

The University submitted a Section 106 Review to the Missouri State Historic Preservation Office (SHPO) to establish eligibility status. The SHPO returned with a designation of eligibility as well as the proposed addition having an adverse effect on the historic property. A Memorandum of Agreement (MOA) has been drafted and requires public notification and notification letters be distributed for comment prior to the finalization of the MOA. (see Appendix D for documents related to Section 106 and MOA)

No Action Alternative

Under the No Action alternative, there would be no physical impact to Temple Hall, and consequently a finding of no historic properties affected.

Proposed Temple Hall Addition

The proposed action has been found to have an adverse effect on a historic property requiring the development of an MOA and mitigation conditions which must be implemented to mitigate the impact to the historic resource.

Because there is joint federal funding for this project, the National Institute of Standards and Technology (NIST) has taken on the role of lead agency for the coordination of the MOA and the completion of the Section 106 Process. As noted above, the final draft MOA is attached and must be fully executed prior to the release of federal funding for this project.

The following are the key steps in the Section 106 compliance process for this proposed action:

- NIST and HRSA defined the Area of Potential Effect (APE) for direct effects as the historic site boundary of the building, which is the West Mall (formerly Lombard Street) on the north, the vacated Kings Avenue on the east, Belmont Street on the south, and John Q. Hammons Parkway (formerly Dollison Street) on the west.
- NIST and HRSA determined that the undertaking will have an adverse effect on Temple Hall, which is eligible for listing in the National Register of Historic Places under Criterion C in the area of Architecture, through the demolition of portions of the north and east facades at the northeast corner of the building, as well as the demolition of the landscape features at the northeast plaza to accommodate a new addition in that location.
- NIST and HRSA consulted with the Missouri State Historic Preservation Officer (SHPO) and prepared a Memorandum of Agreement (MOA) pursuant to 36 CFR § 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108).
- SHPO concurred that the undertaking will have an adverse effect on a historic resource (Temple Hall).
- NIST and HRSA consulted with Missouri State University (MSU) regarding the effects of the undertaking on historic properties and has invited them to sign this MOA as an invited signatory.
- The Vice President for Administrative Services or the University Architect and Director of Planning, Design and Construction is authorized to sign the agreement and perform those acts necessary to carry out and perform the terms of the agreement associated with the undertaking. With approval of the project budget, authorization is also provided to further sign agreements or amendments to existing agreements directly related to this project as long as the approved project budget is not exceeded.
- NIST and HRSA identified the Cherokee Nation, Delaware Nation, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Kickapoo Tribe in Kansas, Kickapoo Tribe of Oklahoma, Osage Nation, Shawnee Tribe, and United Keetoowah Band of Cherokee Indians in Oklahoma as federally recognized tribes with potential interest in Springfield, Missouri

and pursuant to 36 CFR § 800.3, sent a letter on 1 March 2023, inviting all to participate as a consulting parties in the preparation of the Memorandum of Agreement (MOA).

Recommended Mitigation Measures

Construction activities associated with the Proposed Project could have short-term impacts on noise levels, air and water quality, traffic congestion and detours, safety, and the local economy. These impacts would be temporary, existing only for the duration of construction. This section describes the impacts and identifies appropriate mitigation measures.

- Air quality impacts would be temporary and would come primarily from emissions from diesel- powered construction equipment. Some fugitive dust may also be generated by vehicular movement on and around the site. However, because the site is relatively level, site grading for the proposed construction is expected to be limited, minimizing dust generation. No significant vegetation-clearing is planned. If necessary, airborne particles would be controlled by the application of water in accordance with established best management practices (BMPs) for construction.
- Noise impacts would result from movement and operation of construction vehicles and equipment. Contractors will be required to use standard equipment with mufflers and would make certain that equipment is in good operating condition. Based on the type of construction proposed, construction noise would be minor, limited to daylight hours, and would be temporary in duration.
- Water quality impacts could result from storm water runoff to local streets, storm water conveyance systems, and Fassnight Creek during construction activities; however, this is expected to be minimal as no significant grading activities are anticipated with the proposed project. Contractors will be required to follow Springfield storm water control regulations and the University's stormwater general operating permit during construction.
- Minor adverse traffic impacts may include short-term delays along Grand Streets, but significant in-out construction traffic is not expected to be a component of the proposed activities nor are road closings expected.
- Construction may have a minor beneficial economic impact by increasing local and regional employment and wage income. The number of positions and length of employment would vary depending on the construction schedule and the contractors selected. Opportunities for local provision of construction materials and other services related to construction could result in increased earnings for suppliers of materials and services locally and in the region.
- Visual impacts related to construction would include material storage and construction equipment. For nearby residents, these may be visually displeasing; however, this would be a temporary condition and should pose no substantial long-term impacts.
- The project will have an adverse effect on Temple Hall, which was determined to be eligible for the National Register of Historic Places. An MOA has been developed with mitigation actions required to address this adverse effect.
- Lead-based paint and asbestos containing material testing has occurred and there is high likelihood for the presence of both with additional testing planned. MSU will sign assurances

requiring them to meet all federal, state, and local requirements in the handling and disposal of any hazardous materials on site.

Permits

The project site is smaller than 1-acre in size. No federal, state, or local permits of an environmental nature are anticipated for this project.

Public Notification/Controversy

This project is internal to the University and is on university-owned property. Other than traffic to the site during construction, there is no anticipated impact to residents/property owners surrounding the University. Public notice to the project is through MSU Board of Governor meetings which are open to the public. Public notice is also provided through the Request For Qualifications (RFQ) document (https://design.missouristate.edu/request-forqualifications.htm) and on the Capital Priorities page (https://www.missouristate.edu/President/LegislativeAdvocacy/missouri-state-universitycapital-priorities.htm) posted on the MSU website.

No available information indicates that this site has been a source of significant environmental controversy in the local community. The subject property is currently a paved open area adjacent to an existing building. The proposed building addition project will significantly increase the efficiency of use of the existing building. No controversial environmental issues are associated with the building addition and renovation.

Cumulative Effects

Federal regulations implementing NEPA (40 CFR 1508.7) define a cumulative effect (cumulative impact) as "the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." The following sections identify and describe potential cumulative effects that could result from the Proposed Action in combination with other past, present, or reasonably foreseeable future human actions or natural events in the Missouri State University campus/central Springfield area. These other actions and events are called *external actions* because they take place independently from the Proposed Action. By considering external actions that could interact with the alternatives, the cumulative effects analysis allows potential unintended consequences of the alternatives to be identified.

The cumulative effect analysis for the proposed project alternatives include:

- Definition of spatial (geographic) and temporal (time frame) boundaries of the analysis.
- Identification of past, present, and reasonably foreseeable future actions that could produce additive or synergistic environmental effects when combined with potential direct or indirect impacts of the alternatives.
- Description and discussion of potential cumulative effects of project alternatives on the

physical, biological, and human environments.

For the purposes of this analysis, the geographic boundaries consist of the Missouri State University campus and the adjacent neighborhoods areas immediately surrounding the campus, and the time frame for consideration is approximately 10 years.

Past, Present, and Reasonably Foreseeable Future External Actions

Past and present external actions include planning efforts and improvements for this area by both the University and the City of Springfield. Neighborhood associations that provide input to planning for this area include the Phelps Grove Neighborhood, Roundtree Neighborhood, and the Walnut Street Urban Conservation District.

The University's Visioning Guide is a collaborative effort of campus stakeholders that reflects the vision for growth of the campus for the next 25 years. The current Visioning Guide (https://design.missouristate.edu/FY2017VisionGuide.htm) lists the goals of the Temple Hall project as creating updated laboratories, classrooms, and research space. The 2021-2026 Campus Master Plan (https://architect.missouristate.edu/2126Master_Plan.pdf) also reflects this planned expansion.

At present, The City of Springfield is making final preparations to adopt its most recent strategic plan, the ForwardSGF 2040 (https://www.forwardsgf.com). This document was developed through a community-driven planning process to serve as the blueprint to guide growth and development decisions for the next 20 years. ForwardSGF 2040 Goal 5: Support Innovation, Entrepreneurship, and Workforce Development specifically supports the concept of this project, with Section 5.4 providing details on supporting local universities to achieve these goals.

Cumulative Effects on the Physical Environment

Cumulative effects to short-term air quality would result primarily from construction vehicle exhaust and fugitive dust emissions during construction activities; however, the long-term air quality effect is expected to be a slight reduction in overall emissions, as a result of the ability to accommodate additional students in an existing building with modernized building and air handling systems.

Cumulative Effects on the Biological Environment

Because no sensitive wildlife or habitats are present at this site, cumulative effects to the biological environment would result primarily from storm water impacts during construction activities. This will be controlled by requiring contractors to follow storm water regulations and BMPs. Because the site is currently almost entirely covered with impervious surface, only minor vegetation clearing will be required.

Cumulative Effects on the Human Environment

The intent of the project is increased STEM educational opportunities in modern laboratory environments, and while students will benefit, there will also be an overall benefit to the state from workforce development in STEM-related fields. A modernized campus building providing an

improved teaching/learning environment will provide a positive cumulative effect on the human environment. The proposed project will create jobs, both short- and longer-term, and serve to increase educational opportunities. This project does not displace people, jobs, or other human resources in the area.

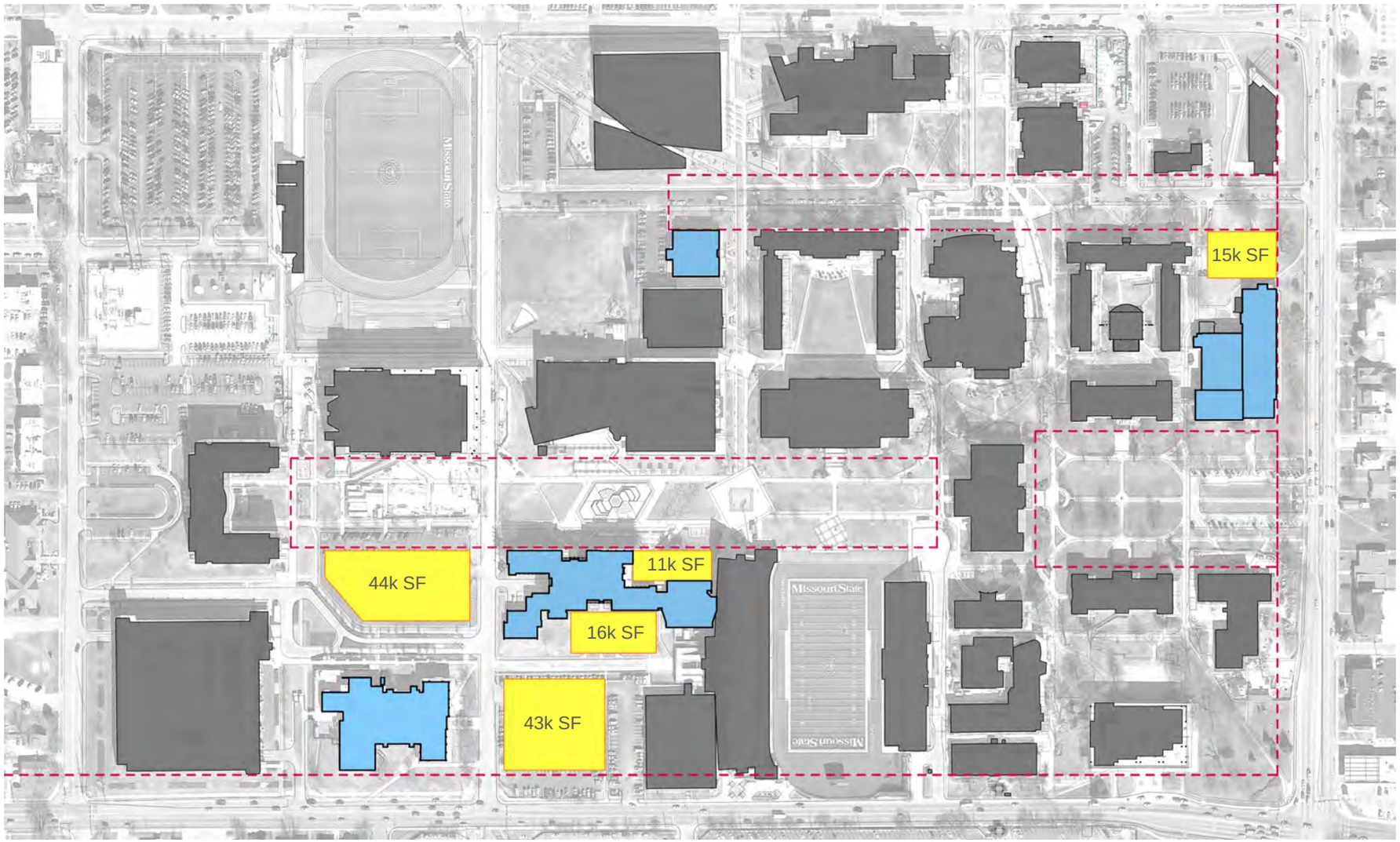
Based on the above analysis, no significant or lasting negative environmental impacts are expected for this project, supporting a Finding of No Significant Impact.

APPENDIX A

Site Analysis

Site Analysis

Available Sites



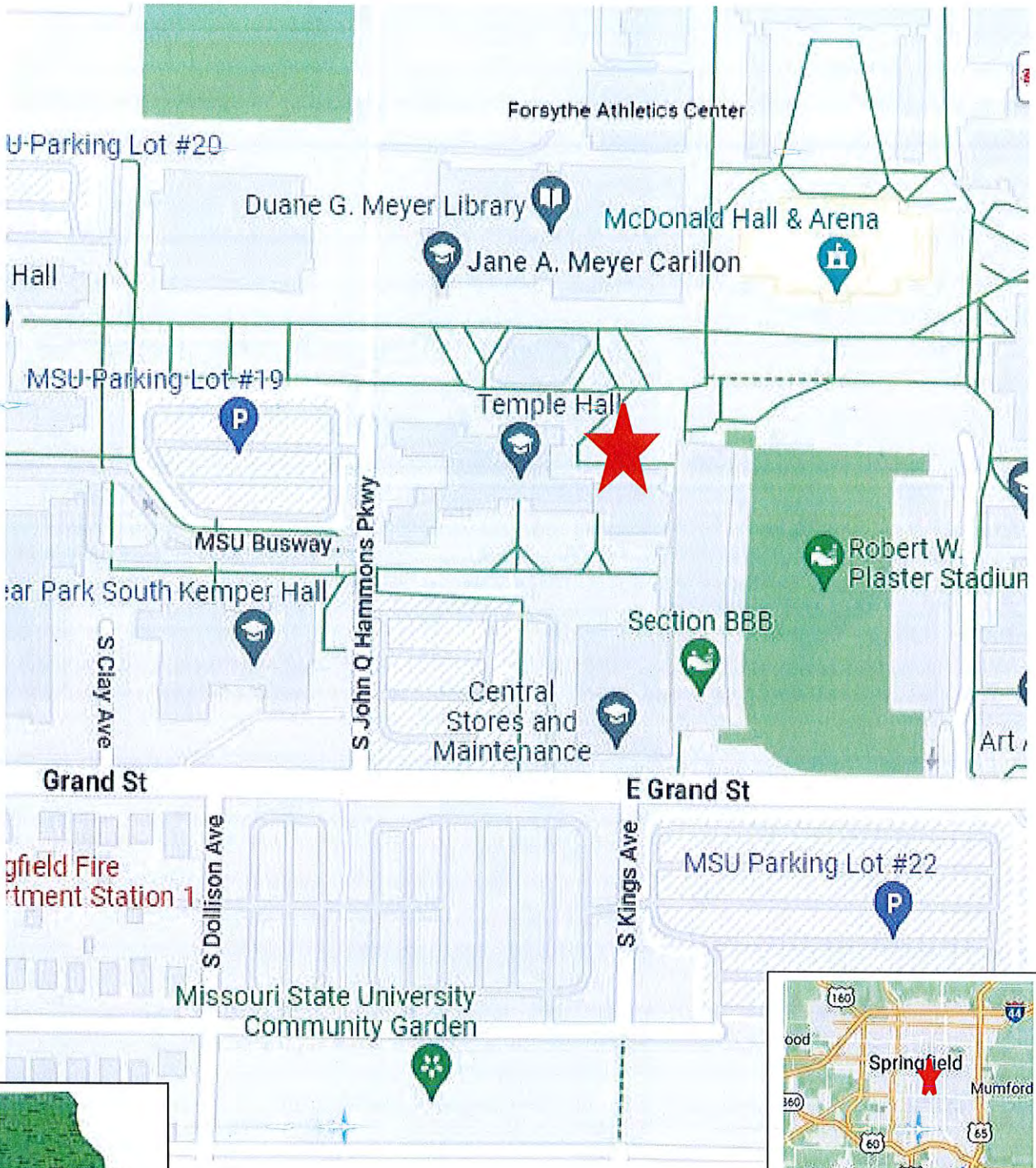
APPENDIX B

Site Figures:

Site Location Map

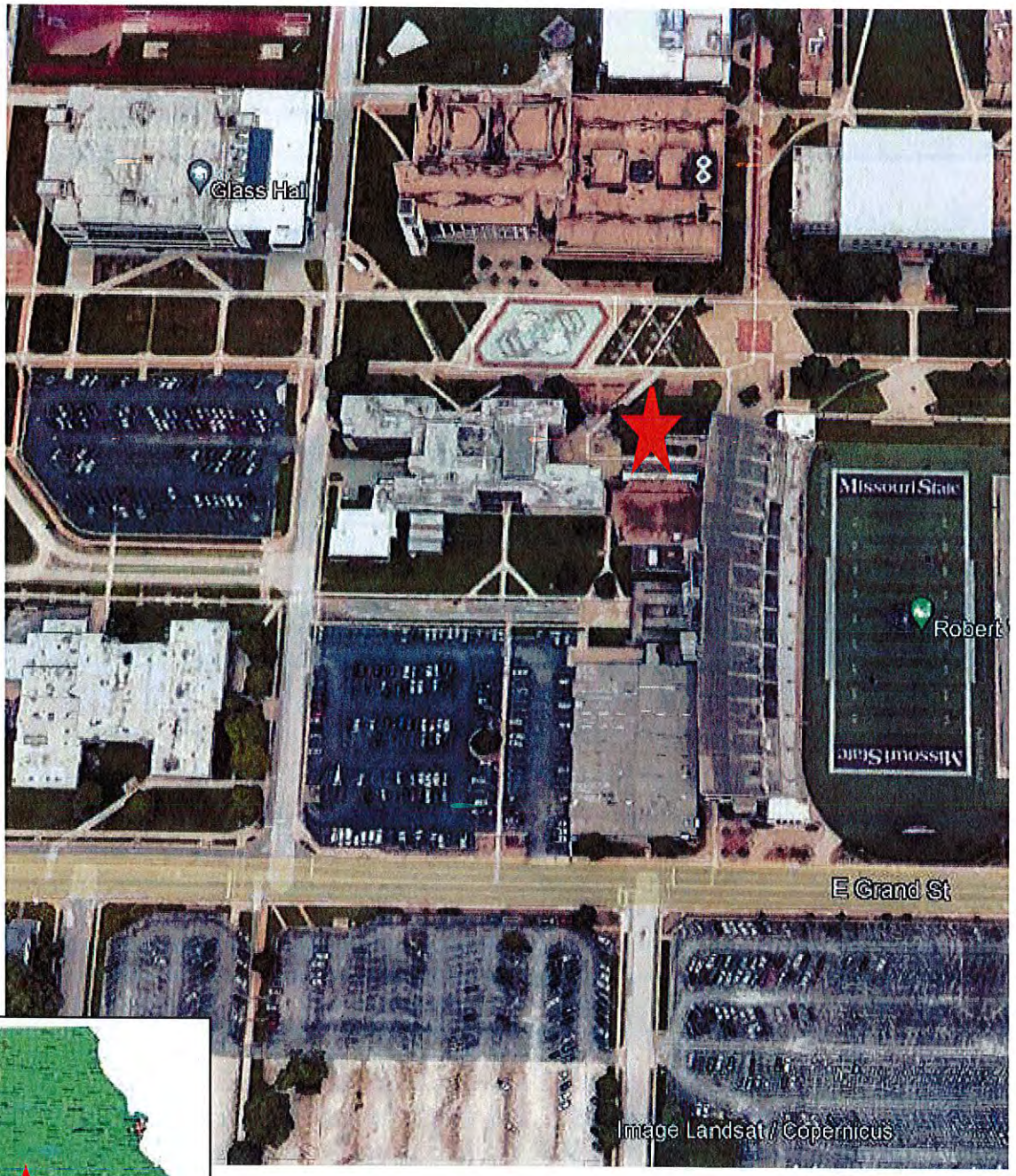
Aerial Photo

FEMA Floor Map



Site Location Figure
Temple Hall Addition & Renovation Project
Missouri State University
Springfield, Missouri

Source: Google Maps



Site Location – Aerial Photo
Temple Hall Addition & Renovation Project
Missouri State University
Springfield, Missouri

Source: Google Earth

FEMA Flood Map
Temple Hall Addition & Renovation Project
Missouri State University
Springfield, Missouri

Source: FEMA Flood Map Service Center

APPENDIX C

MDC Heritage Review

Missouri Department of Conservation

Missouri Department of Conservation's Mission is to protect and manage the forest, fish, and wildlife resources of the state and to facilitate and provide opportunities for all citizens to use, enjoy and learn about these resources.

Natural Heritage Review Level One Report: No Known Records

Foreword: Thank you for accessing the Missouri Natural Heritage Review Website developed by the Missouri Department of Conservation with assistance from the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, Missouri Department of Transportation and NatureServe. The purpose of this report is to provide information to federal, state and local agencies, organizations, municipalities, corporations, and consultants regarding sensitive fish, wildlife, plants, natural communities, and habitats to assist in planning, designing, and permitting stages of projects.

PROJECT INFORMATION

Project Name and ID Number: Temple Hall Addition & Renovation #11959
Project Description: Greene County Section 24 Township 29 Range 22 37 11' 53" N 93 16' 51" W
Project Type: Residential, Commercial and Governmental Building Development
Contact Person: David Vaughan
Contact Information: dvaughan@missouristate.edu or 4178368334

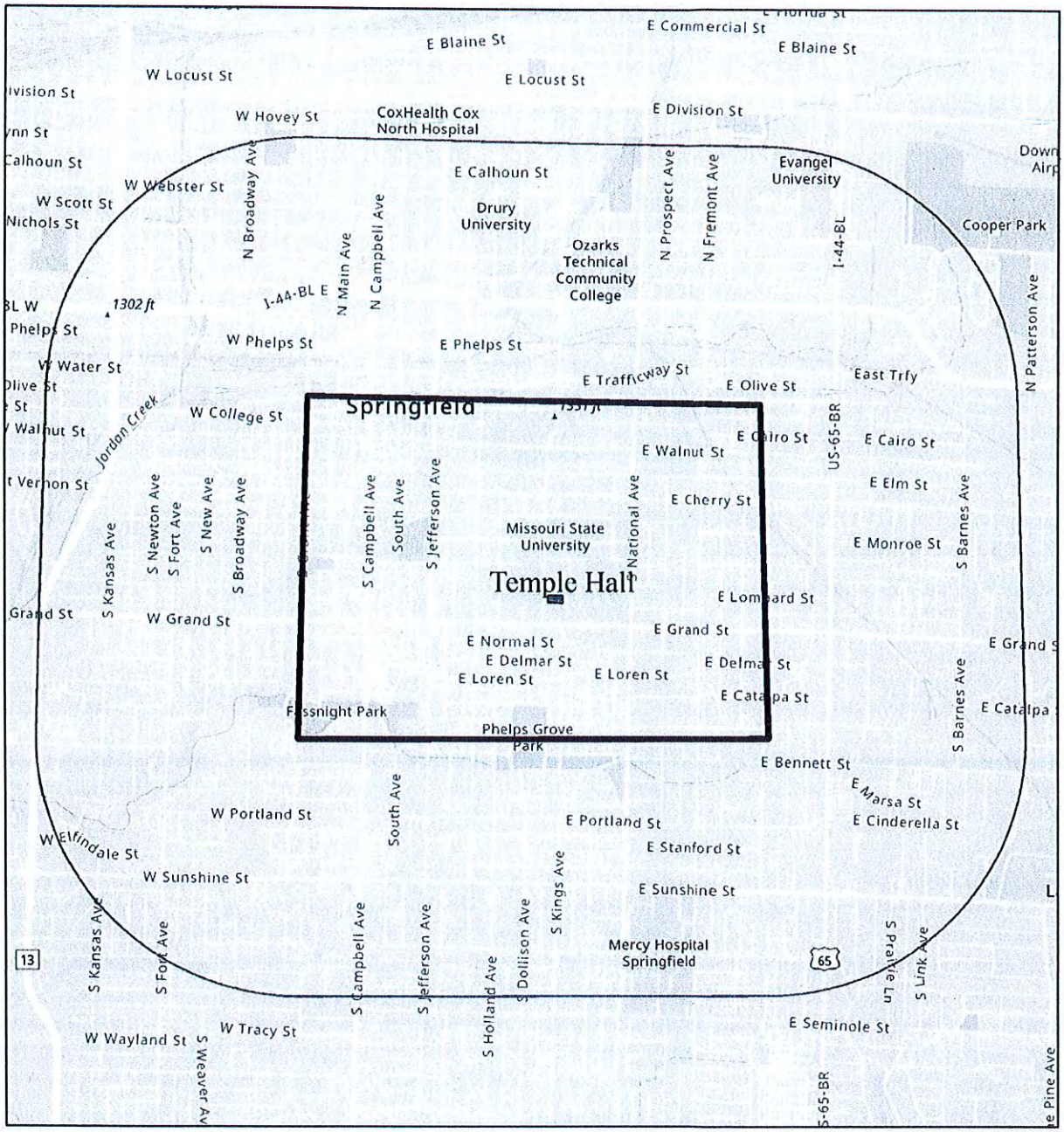
Disclaimer: This NATURAL HERITAGE REVIEW REPORT identifies if a species or natural community tracked by the Natural Heritage Program is known to occur within or near the project area submitted, and shares recommendations to avoid or minimize project impacts to sensitive species or natural habitats. Incorporating information from the Natural Heritage Program into project plans is an important step in reducing impacts to Missouri's sensitive natural resources. If an occurrence record is present, or the proposed project might affect federally listed species, the user must contact the Department of Conservation or U.S. Fish and Wildlife Service for more information.

This Natural Heritage Review Report is not a site clearance letter for the project. Rather, it identifies public lands and records of sensitive resources located close to and/or potentially affected by the proposed project. If project plans or location change, this report may no longer be valid. Because land use conditions change and animals move, the existence of an occurrence record does not mean the species/habitat is still present. Therefore, reports include information about records near but not necessarily on the project site. Lack of an occurrence record does not mean that a sensitive species or natural community is not present on or near the project area. On-site verification is the responsibility of the project. However, the Natural Heritage Program is only one reference that should be used to evaluate potential adverse project impacts and additional information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Reviewing current landscape and habitat information, and species' biological characteristics would additionally ensure that Missouri Species of Conservation Concern are appropriately identified and addressed in planning efforts.

U.S. Fish and Wildlife Service – Endangered Species Act (ESA) Coordination: Lack of a Natural Heritage Program occurrence record for federally listed species in your project area does not mean the species is not present, as the area may never have been surveyed. Presence of a Natural Heritage Program occurrence record does not mean the project will result in negative impacts. This report does not fulfill Endangered Species Act consultation with the U.S. Fish and Wildlife Service (USFWS) for listed species. Direct contact with the USFWS may be necessary to complete consultation and it is required for actions with a federal connection, such as federal funding or a federal permit; direct contact is also required if ESA concurrence is necessary. Visit IPaC: Home (fws.gov) to initiate USFWS Information for Planning and Conservation (IPaC) consultation. Contact the Columbia Missouri Ecological Field Services Office (573-234-2132, or by mail at 101 Park Deville Drive, Suite A, Columbia, MO 65203) for more information.

Transportation Projects: If the project involves the use of Federal Highway Administration transportation funds, these recommendations may not fulfill all contract requirements. Please contact the Missouri Department of Transportation at 573-526-4778 or visit Home Page | Missouri Department of Transportation (modot.org) for additional information on recommendations.

Temple Hall Addition & Renovation



December 12, 2022

1:34,332

0 0.28 0.55 1.1 mi

0 0.45 0.9 1.8 km

Buffered Project Boundary

Project Boundary

Esri, NASA, NGA, USGS, FEMA, Missouri Dept. of Conservation, Missouri DNR, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Species or Communities of Conservation Concern within the Area:

There are no known records of Species or Natural Communities of Conservation Concern within the defined Project Area.

Other Special Search Results:

The project occurs on or near public land, Springfield, please contact MOARNG.

Project Type Recommendations:

New construction, maintenance and remodeling, including government, commercial and residential buildings and other structures. Fish, forest, and wildlife impacts can be avoided by siting projects in locations that have already been disturbed or previously developed, where and when feasible, and by avoiding alteration of areas providing existing habitat, such as wetlands, streams, forest, native grassland, etc. The project should be managed to minimize erosion and sedimentation/runoff to nearby wetlands, streams and lakes, including adherence to any Clean Water Act permit conditions. Project design should include stormwater management elements that assure storm discharge rates to streams for heavy rain events will not increase from present levels. Revegetate areas in which the natural cover is disturbed to minimize erosion using native plant species compatible with the local landscape and wildlife needs. Annual ryegrass may be combined with native perennials for quicker green-up. Avoid aggressive exotic perennials such as crownvetch and sericea lespedeza. Pollutants, including sediment, can have significant impacts far downstream. Use silt fences and/or vegetative filter strips to buffer streams and drainages, and monitor the site after rain events and until a well-rooted ground cover is reestablished. Please see Best Management Practices for Construction and Development Projects Affecting Missouri Rivers and Streams (mo.gov).

Project Location and/or Species Recommendations:

Endangered Species Act Coordination - If this project has the potential to alter habitat (e.g. tree removal, projects in karst habitat) or cause direct mortality of bats, please coordinate directly with U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132 Ext. 100 for Ecological Services) for further coordination under the Endangered Species Act. Indiana bats *(Myotis sodalis,* federal- and state-listed endangered) and **Northern long-eared bats** (*Myotis septentrionalis,* federal-listed threatened) may occur near the project area. Both of these species of bats hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in wooded areas, often riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana bats or Northern long-eared bats, especially from September to April.

Karst: This county has known karst geologic features (e.g., caves, springs, and sinkholes, all characterized by subterranean water movement). Few karst features are recorded in Natural Heritage records, and ones not noted here may be encountered at the project site or affected by the project. Cave fauna (many of which are Species of Conservation Concern) are influenced by changes to water quality; please check your project site for any karst features and make every effort to protect groundwater in the project area. Additional information and specific recommendations are available at Management Recommendations for Construction and Development Projects Affecting Missouri Karst Habitat (mo.gov).

Missouri Bladderpod (Physaria filiformis, federal- listed threatened, state-listed endangered) may occur in the project area on limestone glades or limestone rock outcrops along roadsides or in pastures. The species may persist as a seed bank for several years and not be found during plant surveys. Soil disturbance or fire can stimulate seed germination in the fall, yielding flowering plants the following spring. Please see Best Management Practices for Construction and Development Projects Missouri Bladderpod (mo.gov).

Ozark Cavefish: The project is within the recharge area for an Ozark Cavefish (Troglichthys rosae, federal listed threatened, state-listed endangered) site. All activities that might adversely impact groundwater quality should be avoided. Please see Best Management Practices for Construction and Development Projects Ozark Cavefish (mo.gov) and Management Recommendations for Construction and Development Projects Affecting Missouri Karst Habitat (mo.gov). Additional coordination with the U.S. Fish and Wildlife Service may be required for the project under the federal Endangered Species Act (U.S. Fish and Wildlife Service, Ecological Services, 101 Park DeVille Drive, Suite A, Columbia, Missouri 65203-0007; phone 573-234-2132).

Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, and larvae may be moved to new sites on boats or construction equipment. Please inspect and clean equipment thoroughly before moving between project sites. See Managing Invasive Species in Your Community | Missouri Department of Conservation (mo.gov) for more information.

- Remove any mud, soil, trash, plants or animals from equipment before leaving any water body or work area.
- Drain water from boats and machinery that have operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
- When possible, wash and rinse equipment thoroughly with hard spray or HOT water (>140° F, typically available at do-it-yourself car wash sites), and dry in the hot sun before using again.

Streams and Wetlands – Clean Water Act Permits: Streams and wetlands in the project area should be protected from activities that degrade habitat conditions. For example, soil erosion, water pollution, placement of fill, dredging, in-stream activities, and riparian corridor removal, can modify or diminish aquatic habitats. Streams and wetlands may be protected under the Clean Water Act and require a permit for any activities that result in fill or other modifications to the site. Conditions provided within the U.S. Army Corps of Engineers (USACE) Clean Water Act Section 404 permit (Kansas City District Regulatory Branch (army.mil)) and the Missouri Department of Natural Resources (DNR) issued Clean Water Act Section 401 Water Quality Certification (Section 401 Water Quality Certification | Missouri Department of Natural Resources (mo.gov)), if required, should help minimize impacts to the aquatic organisms and aquatic habitat within the area. Depending on your project type, additional permits may be required by the Missouri Department of Natural Resources, such as permits for stormwater, wastewater treatment facilities, and confined animal feeding operations. Visit Wastewater Permits | Missouri Department of Natural Resources (mo.gov) for more information on DNR permits. Visit both the USACE and DNR for more information on Clean Water Act permitting.

For further coordination with the Missouri Department of Conservation and the U.S. Fish and Wildlife Services, please see the contact information below:

Email (preferred): NaturalHeritageReview@mdc.mo.gov
MDC Natural Heritage Review
Science Branch
P.O. Box 180
Jefferson City, MO
65102-0180
Phone: 573-522-4115 ext. 3182

U.S. Fish and Wildlife Service
Ecological Service
101 Park Deville Drive
Suite A
Columbia, MO
65203-0007
Phone: 573-234-2132

Miscellaneous Information

FEDERAL Concerns are species/habitats protected under the Federal Endangered Species Act and that have been known near enough to the project site to warrant consideration. For these, project managers must contact the U.S. Fish and Wildlife Service Ecological Services (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132; Fax 573-234-2181) for consultation.

STATE Concerns are species/habitats known to exist near enough to the project site to warrant concern and that are protected under the Wildlife Code of Missouri (RSMo 3 CSR 1 0). "State Endangered Status" is determined by the Missouri Conservation Commission under constitutional authority, with requirements expressed in the Missouri Wildlife Code, rule 3CSR 1 0-4.111. Species tracked by the Natural Heritage Program have a "State Rank" which is a numeric rank of relative rarity. Species tracked by this program and all native Missouri wildlife are protected under rule 3CSR 10-4.110 General Provisions of the Wildlife Code.

See Missouri Species and Communities of Conservation Concern Checklist (mo.gov) for a complete list of species and communities of conservation concern. Detailed information about the animals and some plants mentioned may be accessed at Mofwis Search Results. Please contact the Missouri Department of Conservation to request printed copies of any materials linked in this document.

APPENDIX D

Environmental Reports:

Preliminary Asbestos Inspection

Preliminary Lead Based Paint Inspection

ASBESTOS | LEAD | BIOLOGICAL

GERKEN

ENVIRONMENTAL ENTERPRISES INC

1528 WEST MT. VERNON
SPRINGFIELD, MO 65802
TOLL FREE | 888.282.7898
PHONE | 417.863.7254
FAX | 417.863.8483

GERKEN ENVIRONMENTAL

Project #: 23058
Asbestos & Lead-Based Paint Inspection
Temple Hall – Missouri State University
Springfield, Missouri

March 13, 2023

Laura Jean Derrick, csi, aia
Missouri State University
901 South National Avenue
Springfield, Missouri 65897
Phone: 417.836.7625
Email: ljderrick@missouristate.edu

RE: Preliminary Pre-Renovation, Limited Asbestos Inspection Report
Temple Hall
910 South John Q. Hammons Parkway
Springfield, Missouri 65897

Dear Mrs. Derrick:

As requested by Missouri State University, Gerken Environmental performed a review of suspect asbestos materials and collected a limited number of suspect asbestos-containing building materials (ACBMs) in preparation for a limited pre-renovation asbestos inspection. This inspection within the Temple Hall Building located at 910 South John Q. Hammons Parkway in Springfield, Missouri, (the Subject Property), was in preparation of a future renovation project.

INSPECTION OBJECTIVE

The purpose of this preliminary inspection was to determine the location of suspect asbestos-containing materials (ACM), so that they can be documented for the historic fabric review and managed properly during future building renovation and demolition projects. The future inspection will be conducted following U.S. Environmental Protection Agency (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) protocols in addition to Missouri Department of Natural Resources (MDNR) requirements for inspections completed in the State of Missouri. Inspections are completed by Asbestos Hazard Emergency Response Act (AHERA) trained and licensed inspectors. Copies of training and certifications can be found in Attachment E.

BACKGROUND

The Subject Property was comprised of a four-story school building containing approximately 40,000 square feet. The building is constructed with concrete block walls and utilizes steam for heat and chilled water for air-conditioned spaces. Roofing is rubber and aggregate and according to the client, is original to the building.

Gerken Environmental identified four (4) types of suspect asbestos-containing building materials (ACBM) as part of the preliminary inspection within the Temple Hall Building located 910 South John Q. Hammons Parkway in Springfield, Missouri, (the Subject Property). These materials included: thermal pipe insulation, ceiling tile, drywall system, and acoustical wall tile. Additional suspect materials have been noted and will be sampled once the historic fabric review is complete. These materials include window caulking, window glazing, roofing materials, plaster ceilings, flooring materials (including tile and mastic), as well as materials uncovered when floor and ceiling finishes are removed.

SCOPE OF WORK

Limited ACBM sampling of the Subject Property was performed on March 9, 2023, by Mr. Scott Samuels, a State of Missouri Certified Asbestos Inspector (Certificate# 7011110221MOIR1489). This assessment was limited to the future building connection area of the Temple Hall Building located at 910 South John Q. Hammons Parkway in Springfield, Missouri, (the Subject Property).

The preliminary sampling event involved locating and assessing the condition of accessible suspect ACBM, not part of the historic fabric review, using sampling and visual inspection techniques, to develop a report which identifies the extent of the materials present within the proposed work areas.

ASBESTOS-CONTAINING BUILDING MATERIALS (ACBM)

Asbestos-containing building materials are generally classified as friable or non-friable. Friable materials are those which can be crumbled, pulverized or reduced to powder by hand pressure or by normal use or maintenance emits or can be expected to emit asbestos into the air. Gerken Environmental collected twelve (12) representative samples of suspect ACBMs from different homogenous areas at the Subject Property. A map, indicating Work Area Locations is provided in Attachment D of this Report. Suspect ACBM samples were then submitted to International Asbestos Testing Laboratories (iATL), located in Mt. Laurel, New Jersey, a state-licensed and accredited laboratory for analysis of asbestos content.

All samples were analyzed via polarized light microscopy with the dispersion staining (PLM/DS) method. By using the PLM/DS method, a trained microscopist is able to identify and distinguish between asbestos group minerals and other fibrous materials such as cellulose (paper), mineral (rock), wood, or glass fiber. The quantity of each of these substances is estimated on a weight basis and recorded as a percent.

Only the asbestos content, if any, is recorded in the bulk sample Report of Analysis. If a material contains greater than 1% asbestos, it is considered to be an ACBM by EPA standards. The following table presents the sample location, asbestos content, friability, and estimated "approximate (~)" quantity of bulk samples of suspect ACBM collected at the Subject Property.

Materials containing less than one percent (<1%) of asbestos fibers do not meet the definition of ACM under US EPA NESHAP; however, are regulated by US OSHA.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the laboratory analysis, the following materials have been identified as ACBM:

ACBM	LOCATION	ASBESTOS %	QUANTITY	CONDITION
Drywall Joint Compound ** Composite Drywall System **	Throughout	1.2 to 1.3% Chrysotile ** Composite <1% **	TBD	Good

The EPA allows for drywall materials to be sampled as a drywall system. This system includes the drywall board material along with the drywall joint compound. This sample is considered a composite sample of the system. While the EPA only regulates asbestos materials containing 1% asbestos and greater, OSHA regulates asbestos materials with any percentage of asbestos. We recommend if these materials are to remain in place during demolition, proper communication and work practices should be used to control asbestos contamination and personnel exposure.

In the event renovation/demolition procedures are likely to disturb these materials, the ACBM should be addressed with the owners general contractor as required by the OSHA Hazard Communication Standard.

Materials identified as ACBM which will not be impacted by renovation or demolition activities should be included in the Asbestos Operations and Maintenance (O&M) Plan for the Subject Property. Gerken Environmental recommends that the identified ACBMs be maintained in place via development and implementation of an Asbestos Operations and Maintenance (O&M) Plan. This O&M Plan should provide procedures and guidelines that, when used during facility cleaning, maintenance, and general operations, will minimize human exposure to asbestos fibers and minimize the release of asbestos fibers to the environment.

LIMITATIONS

This Report presents the findings of the present survey but does not constitute a complete determination of whether past or present owners or occupants of the Subject Property have been in compliance with all applicable local, state, and federal environmental regulations. The information contained herein is based on on-site observations and on a survey involving site observations and sampling only. The investigative methods applied to this assessment are consistent with current industry standards for the performance of investigation within the limits of the scope of work, budget, and schedule. It should be noted that no conclusions can be drawn regarding the existence of conditions that were not addressed by the scope of work.

This survey and Report were prepared by Gerken Environmental solely for the use of Missouri State University. Third-party use of this Report is prohibited without the prior written consent of Gerken Environmental and use thereof is at the risk of the user. The observations and results presented in this Report are believed to be representative of site conditions prevailing at the time of the assessment in the areas explored. Changes in site conditions or in the availability of information regarding past or current site conditions should be brought to the attention of

Gerken Environmental so that they can be addressed and Gerken Environmental's conclusions verified or modified as appropriate.

It has been a pleasure to prepare this Report for you. Please contact Greg Gerken at 417.838.3441, if you should have any questions or comments, or if we can be of further assistance in any way.

Respectfully,

Angela C. Gerken
Report Manager
Testing & Consulting Division
Gerken Environmental Enterprises, Inc.

Scott Samuels
Asbestos Inspector
Testing & Consulting Division
Gerken Environmental Enterprises, Inc.

Attachment A: ACBM Schedule
Attachment B: Laboratory Analysis
Attachment C: Chain of Custody
Attachment D: Work Area Location(s)
Attachment E: Inspector Certification

Laboratory Analysis

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Gerken Environmental Enterprises, Inc.
1528 West Mt. Vernon
Springfield MO 65802

Client: GER001

Report Date: 3/13/2023
Report No.: 679758 - PLM Rev #2, 3/13/2023
Project: Temple Hall
Project No.: 23058

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7584037 **Analyst Observation:** Yellow Insulation **Location:** 1st Floor Top
Client No.: 23058.0309.001 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Fibrous Glass
Percent Non-Fibrous Material: None Detected

Lab No.: 7584037(L2) **Analyst Observation:** White Woven Material **Location:** 1st Floor Top
Client No.: 23058.0309.001 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Cellulose
Percent Non-Fibrous Material: None Detected

Lab No.: 7584038 **Analyst Observation:** Yellow Insulation **Location:** 1st Floor Top
Client No.: 23058.0309.002 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Fibrous Glass
Percent Non-Fibrous Material: None Detected

Lab No.: 7584038(L2) **Analyst Observation:** White Woven Material **Location:** 1st Floor Top
Client No.: 23058.0309.002 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Cellulose
Percent Non-Fibrous Material: None Detected

Lab No.: 7584039 **Analyst Observation:** Yellow Insulation **Location:** 1st Floor Top
Client No.: 23058.0309.003 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Fibrous Glass
Percent Non-Fibrous Material: None Detected

Lab No.: 7584039(L2) **Analyst Observation:** White Woven Material **Location:** 1st Floor Top
Client No.: 23058.0309.003 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Cellulose
Percent Non-Fibrous Material: None Detected

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 3/10/2023
Date Analyzed: 03/13/2023
Signature:
Analyst: Aidan Becker

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Gerken Environmental Enterprises, Inc.
1528 West Mt. Vernon
Springfield MO 65802

Client: GER001

Report Date: 3/13/2023
Report No.: 679758 - PLM Rev #2, 3/13/2023
Project: Temple Hall
Project No.: 23058

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7584040 **Analyst Observation:** Yellow Insulation **Location:** 1st Floor Bottom
Client No.: 23058.0309.004 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Fibrous Glass
Percent Non-Fibrous Material: None Detected

Lab No.: 7584040(L2) **Analyst Observation:** White Woven Material **Location:** 1st Floor Bottom
Client No.: 23058.0309.004 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Cellulose
Percent Non-Fibrous Material: None Detected

Lab No.: 7584041 **Analyst Observation:** Yellow Insulation **Location:** 1st Floor Bottom
Client No.: 23058.0309.005 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Fibrous Glass
Percent Non-Fibrous Material: None Detected

Lab No.: 7584041(L2) **Analyst Observation:** White Woven Material **Location:** 1st Floor Bottom
Client No.: 23058.0309.005 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Cellulose
Percent Non-Fibrous Material: None Detected

Lab No.: 7584042 **Analyst Observation:** Yellow Insulation **Location:** 1st Floor Bottom
Client No.: 23058.0309.006 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Fibrous Glass
Percent Non-Fibrous Material: None Detected

Lab No.: 7584042(L2) **Analyst Observation:** White Woven Material **Location:** 1st Floor Bottom
Client No.: 23058.0309.006 **Client Description:** Pipe Insulation Above Ceiling **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 100 Cellulose
Percent Non-Fibrous Material: None Detected

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 3/10/2023
Date Analyzed: 03/13/2023
Signature:
Analyst: Aidan Becker

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Gerken Environmental Enterprises, Inc.
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Springfield MO 65802

Client: GER001

Report Date: 3/13/2023
Report No.: 679758 - PLM Rev #2, 3/13/2023
Project: Temple Hall
Project No.: 23058

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7584043
Client No.: 23058.0309.007

Analyst Observation: White Ceiling Tile
Client Description: White 2x4 Ceiling Tile Small Hole Pattern

Location: 1st Floor Hall
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
60 Cellulose
20 Fibrous Glass

Percent Non-Fibrous Material:
20

Lab No.: 7584044
Client No.: 23058.0309.008

Analyst Observation: White Ceiling Tile
Client Description: White 2x4 Ceiling Tile Small Hole Pattern

Location: 1st Floor Hall
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
60 Cellulose
20 Fibrous Glass

Percent Non-Fibrous Material:
20

Lab No.: 7584045
Client No.: 23058.0309.009

Analyst Observation: White Drywall
Client Description: Drywall

Location: Room 103
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
5 Cellulose

Percent Non-Fibrous Material:
95

Lab No.: 7584045(L2)
Client No.: 23058.0309.009

Analyst Observation: White Joint Compound
Client Description: Drywall

Location: Room 103
Facility:

Percent Asbestos:
PC 1.3 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
98.7

Lab No.: 7584045(L3)
Client No.: 23058.0309.009

Analyst Observation: Composite
Client Description: Drywall

Location: Room 103
Facility:

Percent Asbestos:
PC Trace *Chrysotile*

Percent Non-Asbestos Fibrous Material:
2 Cellulose

Percent Non-Fibrous Material:
98

Lab No.: 7584046
Client No.: 23058.0309.010

Analyst Observation: White Drywall
Client Description: Drywall

Location: Room 103
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
5 Cellulose

Percent Non-Fibrous Material:
95

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 3/10/2023
Date Analyzed: 03/13/2023
Signature:
Analyst: Aidan Becker

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Gerken Environmental Enterprises, Inc.
1528 West Mt. Vernon
Springfield MO 65802

Client: GER001

Report Date: 3/13/2023
Report No.: 679758 - PLM Rev #2, 3/13/2023
Project: Temple Hall
Project No.: 23058

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 7584046(L2)
Client No.: 23058.0309.010
Analyst Observation: White Joint Compound
Client Description: Drywall
Location: Room 103
Facility:

Percent Asbestos:
PC 1.2 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
98.8

Lab No.: 7584046(L3)
Client No.: 23058.0309.010
Analyst Observation: Composite
Client Description: Drywall
Location: Room 103
Facility:

Percent Asbestos:
PC Trace *Chrysotile*

Percent Non-Asbestos Fibrous Material:
2 Cellulose

Percent Non-Fibrous Material:
98

Lab No.: 7584047
Client No.: 23058.0309.011
Analyst Observation: White Ceiling Tile
Client Description: Acoustical Wall Tile
Location: Outside Room 113
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
80 Fibrous Glass

Percent Non-Fibrous Material:
20

Lab No.: 7584048
Client No.: 23058.0309.012
Analyst Observation: White Ceiling Tile
Client Description: Acoustical Wall Tile
Location: Outside Room 113
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
80 Fibrous Glass

Percent Non-Fibrous Material:
20

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 3/10/2023
Date Analyzed: 03/13/2023
Signature:
Analyst: Aidan Becker

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Gerken Environmental Enterprises, Inc.	Report Date:	3/13/2023
	1528 West Mt. Vernon	Report No.:	679758 - PLM
	Springfield MO 65802	Project:	Temple Hall
		Project No.:	23058
Client:	GER001		

Appendix to Analytical Report

Customer Contact: Al Gerken
Method: 40 CFR Appendix E to Subpart E of Part 763, interim method for the Determination of Asbestos in Bulk Insulation Samples, USEPA 600, R93-116 and NYSDOH ELAP 198.1 as needed.

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: wchampion@iatl.com
iATL Account Representative: Kelly Klippel
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB) See additional information at the end of this appendix.

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client:	Gerken Environmental Enterprises, Inc.	Report Date:	3/13/2023
	1528 West Mt. Vernon	Report No.:	679758 - PLM
	Springfield MO 65802	Project:	Temple Hall
		Project No.:	23058
Client:	GER001		

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: “ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite.”

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional. NYS customers please follow current NYSDOH ELAP requirements per policy on subject of surfacing and vermiculite, May 6, 2016, Testing Requirements for Surfacing Material Containing Vermiculite (https://www.wadsworth.org/sites/default/files/WebDoc/I198_8_02_2.pdf)

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% for most samples.

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Gerken Environmental Enterprises, Inc.
1528 West Mt. Vernon
Springfield MO 65802

Client: GER001

Report Date: 3/13/2023
Report No.: 679758 - PLM
Project: Temple Hall
Project No.: 23058

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

New York State Department of Health requires that samples originating from NYS that they categorize as Non-friable Organically Bound materials can only be confirmed as None Detected for asbestos by method 198.4. See the table below for a list of those materials. (ENVIRONMENTAL LABORATORY APPROVAL PROGRAM CERTIFICATION MANUAL - ITEM No. 198.1, Revision Date 5/6/16)

*Asphalt Shingles, Caulking, Ceiling Tiles with Cellulose, Duct Wrap, Glazing, Mastic, Paint Chips, Resilient Floor Tiles, Rubberized Asbestos Gaskets, Siding Shingles, Vinyl Asbestos Tile, NOB materials (other that SM-V) with <10% vermiculite, Any material (Friable or NOB other than SM-V) with >10% vermiculite.

Statistically derived uncertainty with any measure should be taken into consideration when reviewing and interpreting all reported data and results. A more comprehensive listing of accuracy, precision, and uncertainty as it impacts this method is available upon request.

Chain of Custody

LBP

GERKEN

ASBESTOS BULK SAMPLE CHAIN OF CUSTODY

PROJECT #: 23058 DATE: 3/9/23

PROJECT NAME: Temple Hall

COLLECTED BY: Scott Samuels

KEY

A = Analyze C = Catalogue ◆ = Analyze only if the previous sample was found to be negative
HA: Homogeneous Area
FRIABILITY: F = Friable NF = Nonfriable
CONDITION (COND): G = Good D = Damaged SD = Significantly Damaged
POTENTIAL FOR DAMAGE (POT DAM): L = Low Risk M = Moderate Risk H = High Risk

SAMPLE ID	HA #	SAMPLE DESCRIPTION (ie. FT1 - 12 x 12 White Floor Tile)	SAMPLE LOCATION	A	C	◆	FRIABILITY (F,NF)	COND (G,D,SD)	DAMAGE (%)	POT DAM (L,M,H)	QTY	KEY
23058.0309.	001	Pipe insulation above ceiling, 1st Floor	Top				F	D	5		unknown	
23058.0309.	002	Pipe insulation above ceiling 1st floor	Top				F	D	5		Throughout	
23058.0309.	003	Pipe insulation above ceiling 1st floor	Top				F	D	5		"	
23058.0309.	004	Pipe insulation above ceiling 1st floor	bottom				F	D	5		"	
23058.0309.	005	Pipe insulation above ceiling 1st floor	bottom				F	D	5		"	
23058.0309.	006	Pipe insulation above ceiling 1st floor	bottom				F	D	5		"	
23058.0309.	007	white 2x4 ceiling tile, small hole pattern	1st floor hall				NF	G	0		Throughout Bldg	
23058.0309.	008	white 2x4 ceiling tile, small hole pattern	1st floor hall				NF	G	0		"	
23058.0309.	009	Drywall,	1st Room 103,				NF	G	0		"	
23058.0309.	010	Drywall,	Room 103,				NF	G	0		"	
23058.0309.	011	accoustical wall tile,	outside room 113				NF	G	0		12	
23058.0309.	012	accoustical wall tile,	outside room 113				NF	G	0		12	
~~23058.0309. 013~~												
~~23058.0309. 014~~												
~~23058.0309. 015~~												

RECEIVED

DESCRIPTION OF WORK/COMMENTS:

3.13.23 MAR

CHAIN OF CUSTODY

RELINQUISHED BY: Gerken / Samuels DATE/TIME: 3/9/23

RECEIVED BY: DATE/TIME:

ANALYSIS: [X] PLM [ ] TEM

SAMPLER'S SIGNATURE: Scott Samuels

TURNAROUND TIME

- [ ] SAME DAY
- [x] 24 Hour
- [ ] 3 Day
- [ ] 5 Day

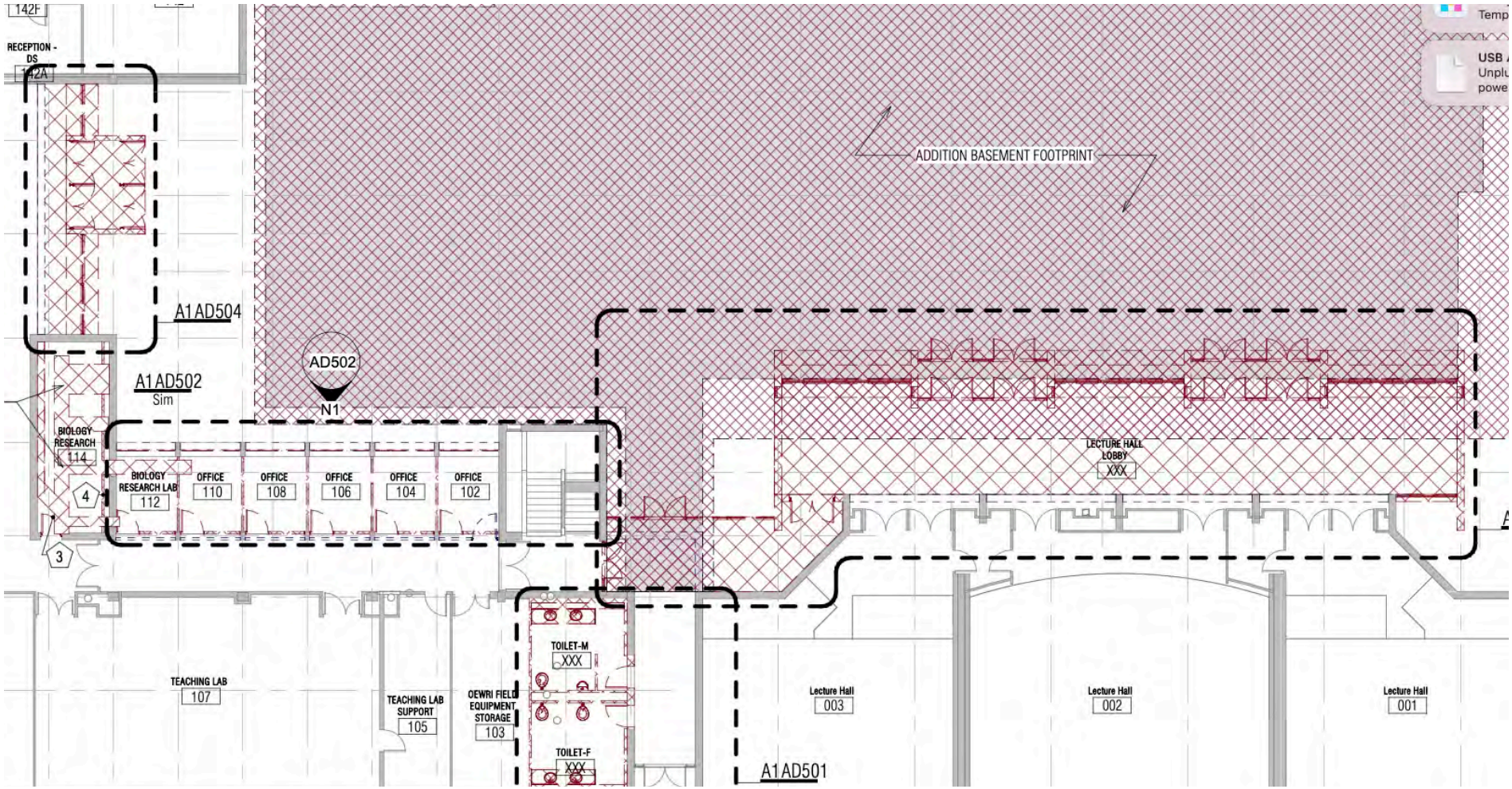
SAMPLE RESULTS

RESULTS SUPPLIED TO: WILL BY

NAME: Scott Samuels

EMAIL ADDRESS: Scott2gerkenmail.com

Work Area Location(s)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RECEPTION - DS
142A
ADDITION BASEMENT FOOTPRINT
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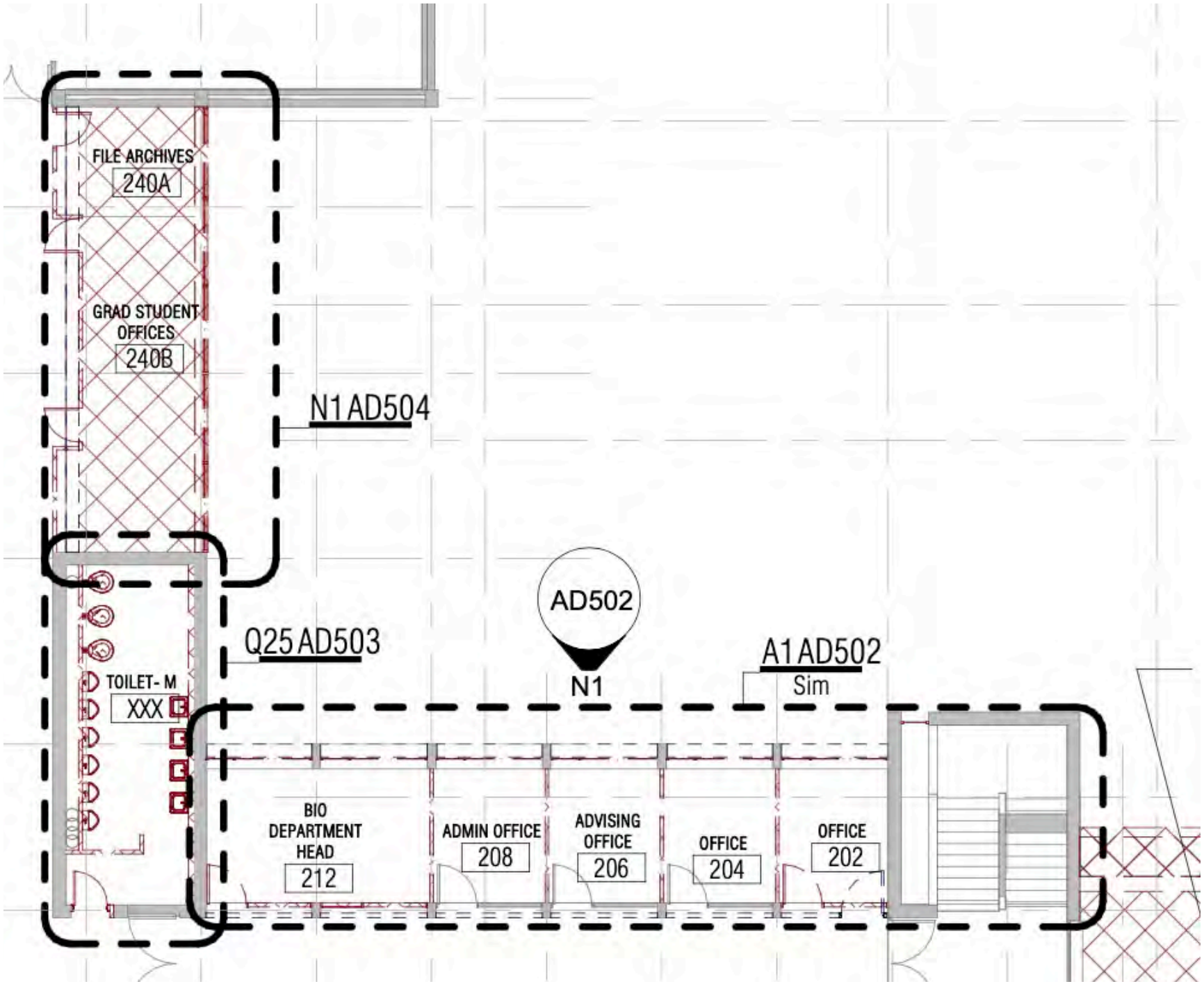
AD502
N1
A1AD502
Sim
BIOLOGY RESEARCH
114
BIOLOGY RESEARCH LAB
112
OFFICE
110
OFFICE
108
OFFICE
106
OFFICE
104
OFFICE
102
LECTURE HALL LOBBY
XXX
4
3
TOILET-M
XXX
TEACHING LAB
107
TEACHING LAB SUPPORT
105
OEWRI FIELD EQUIPMENT STORAGE
103
TOILET-F
XXX
Lecture Hall
003
Lecture Hall
002
Lecture Hall
001
A1AD501


FILE ARCHIVES
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GRAD STUDENT OFFICES
240B
N1 AD504
AD502
N1
Q25 AD503
A1 AD502
Sim
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XXX
BIO DEPARTMENT HEAD
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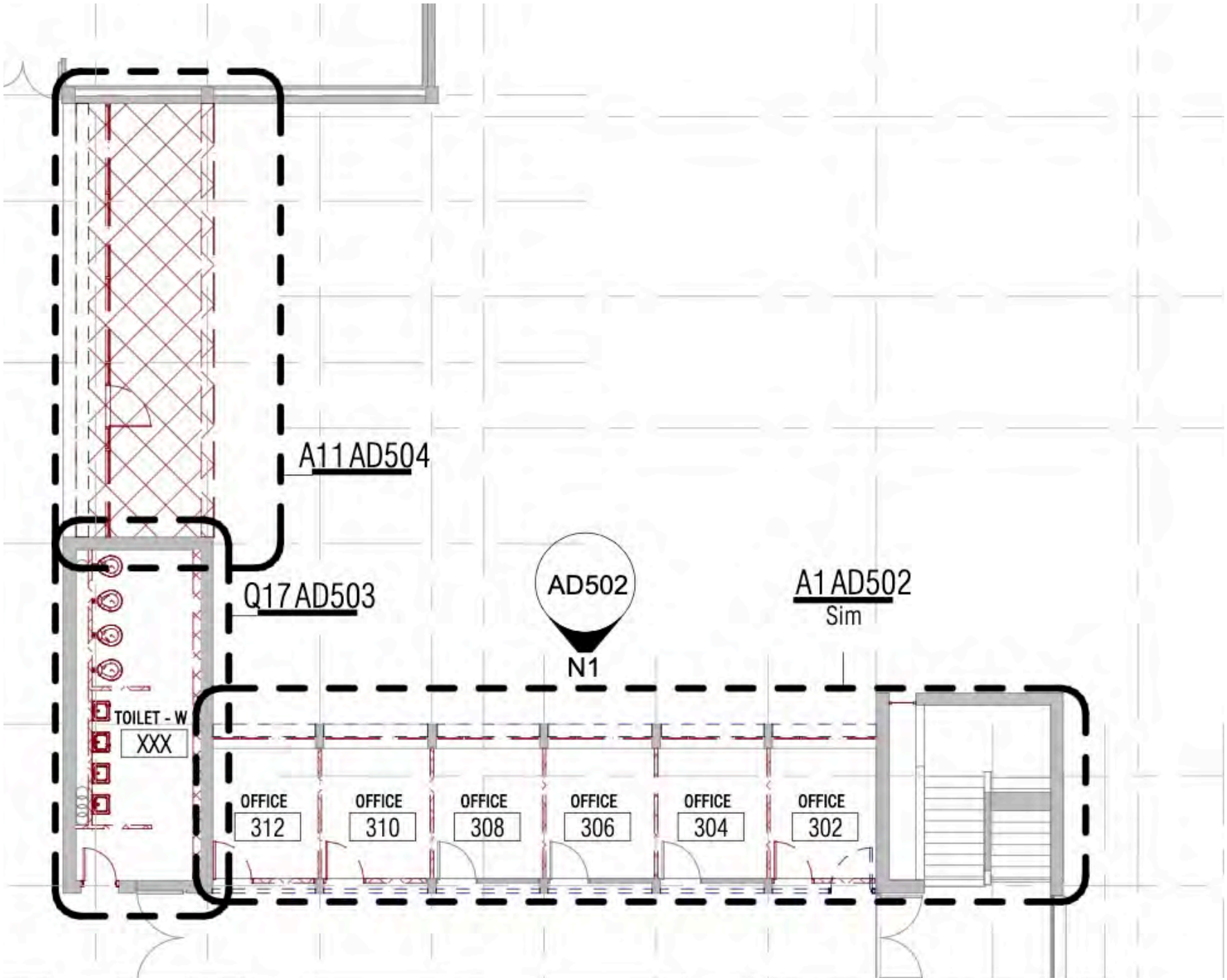
ADMIN OFFICE
208
ADVISING OFFICE
206
OFFICE
204
OFFICE
202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Q17 AD503
AD502
N1
A1 AD502
Sim
TOILET - W
XXX
OFFICE
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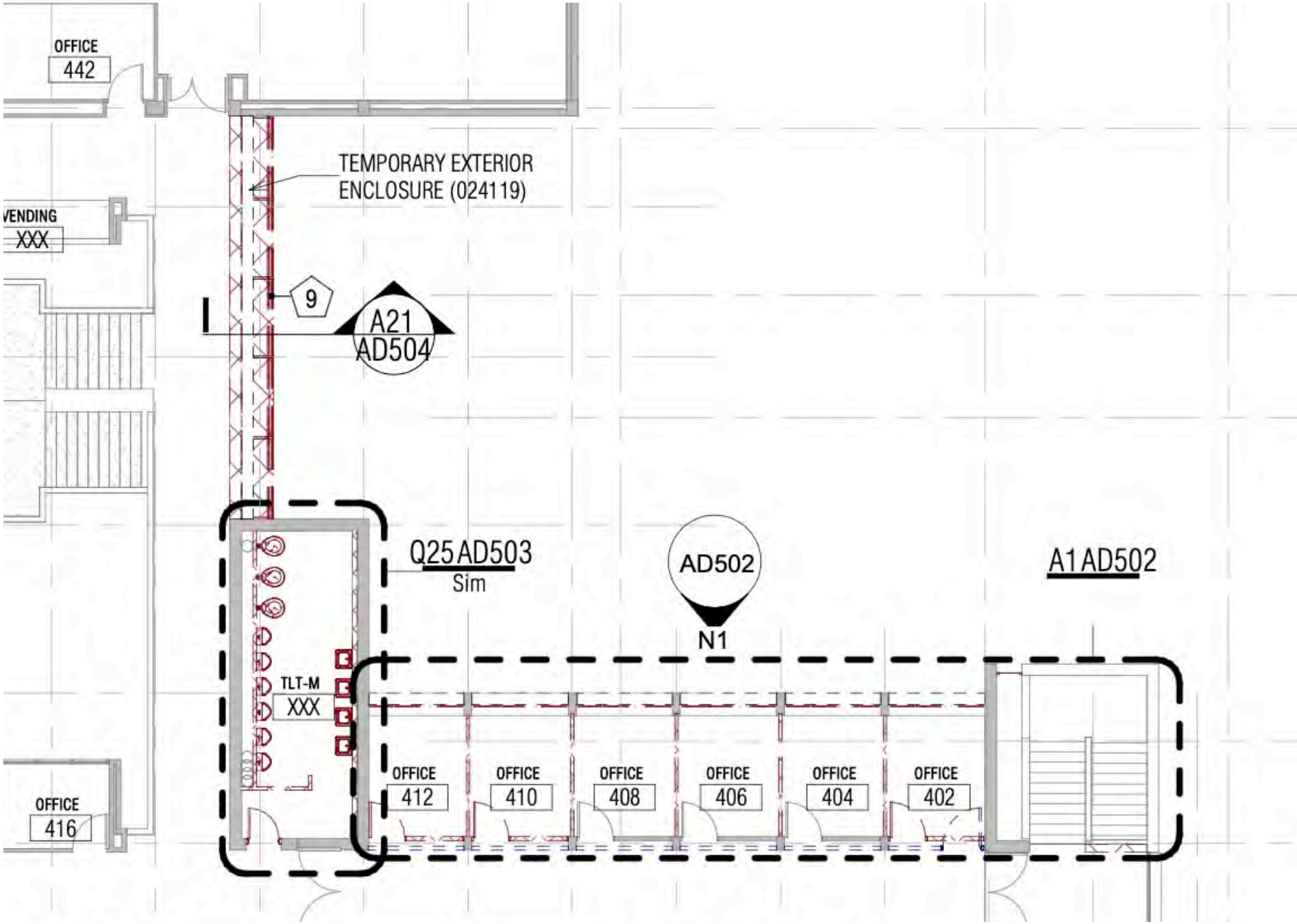
OFFICE
306
OFFICE
304
OFFICE
302


OFFICE
442
TEMPORARY EXTERIOR
ENCLOSURE (024119)
VENDING
XXX
9
A21
AD504
Q25AD503
Sim
AD502
N1
A1AD502
TLT-M
XXX
OFFICE
412
OFFICE
410
OFFICE
408
OFFICE
406
OFFICE
404
OFFICE
402
OFFICE
416

Inspector Certification

M·E·T·A

Mayhew Environmental Training Associates

INCORPORATED

Certificate # 3ATB1WUQD

Scott Samuels

has on 10/27/2022, in Lawrence, KS via Zoom completed the requirements for asbestos accreditation under Section 206 of TSCA Title II, 15 USC 2646

Asbestos Inspector Refresher

as approved by KS & the US EPA under 40 CFR 763 (AHERA)
on 10/27/2022 - 10/27/2022 and passed the associated exam on 10/27/2022 with a score of at least 70%

Robert W. Brooks

Robert Brooks Instructor

Thomas Mayhew
President

SSN: XXX-XX-5493
Expiration: 10/27/2023

P.O. Box 786 - Lawrence, KS. 66044 - 800.444.6382
www.metaenvironmental.net

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Michael L. Parson
Governor

Dru Buntin
Director

November 2, 2022

Scott Samuels
1528 W Mt Vernon
Springfield, MO 65802

RE: **Missouri Asbestos Occupation Certification Card**

Enclosed is your certification card for Asbestos Inspector, as issued by the Asbestos Unit of the Missouri Department of Natural Resources' Air Pollution Control Program.

Missouri Certification Number: 7011102722MOIR1489
Course Training Date: October 27, 2022
Missouri Certification Approval Date: November 03, 2022
Missouri Certification Expiration Date: November 03, 2023

Note:

- All Missouri-certified asbestos personnel must comply with the following statutes and regulations:
  - Sections 643.225 to 643.250, RSMo;
  - 10 CSR 10-6.241 *Asbestos Projects-Registration, Abatement, Notification, Inspection, Demolition, and Performance Requirements; and*
  - 10 CSR 10-6.250 *Asbestos Projects-Certification, Accreditation and Business Exemption Requirements.*
- To keep your occupation certification up-to-date, you must complete an annual refresher course and submit a renewal application each year.
- In order to be eligible to renew your certification, you must successfully complete a refresher course with a Missouri-accredited training provider within 12 months of the expiration date of your current training certificate. If you exceed this grace period, you will be required to retake a Missouri-accredited initial course in order to be eligible for Missouri certification.

To obtain a copy of the certification renewal application, or review regulations and requirements, please visit our website at http://dnr.mo.gov/env/apcp/asbestos/index.htm.

If you have any questions please call the Air Pollution Control Program at 573-751-4817.

AIR POLLUTION CONTROL PROGRAM

Director of Air Pollution Control Program

LIMITED LEAD-BASED PAINT TESTING

Missouri State University – Science Building Temple Hall

910 S John Q Hammons Pkwy Springfield, MO 65897

Prepared For:

gerken ENVIRONMENTAL

Greg Gerken

President

1528 West Mount Vernon

Springfield, MO 65802

Date: March 13, 2023

Project Number: 923112

Prepared By:

OCCU-TEC, Inc.

2604 NE Industrial Drive, Suite 230

North Kansas City, MO 64117

Phone: (816) 231-5580

Fax: (816) 231-5641

www.occutec.com

2604 NE Industrial Dr., Ste. 230
North Kansas City, MO 64117

CONTENTS

Executive summary 1
Key Terms and Acronyms 2
1.0 Introduction 3
2.0 Methodology 3
2.1 Lead-Based Paint 3
3.0 Investigation Results 3
3.2 Lead-Based Paint Results 3
4.0 Limitations of the Inspection 4
5.0 Recommendations 4
6.0 Signature(s) 4
7.0 References 4

Appendices

Appendix A – Inspector Qualifications
Appendix B – XRF Analysis Results

EXECUTIVE SUMMARY

OCCU-TEC, Inc. (OCCU-TEC) completed limited lead-based paint testing of the scheduled construction area within Temple Hall located at 910 South John Q Hammons Parkway Springfield, MO 65897 at the request of Mr. Greg Gerken of Gerken Environmental (Gerken). The limited testing was completed within the subject room in preparation of planned renovation within the space.

The testing was completed by Mr. Justin Arnold of OCCU-TEC on March 9th, 2023, in general accordance with the requirements set forth by the United States Environmental Protection Agency (EPA), Missouri Department of Health and Human Services (MDHHS), and local regulations as applicable.

OCCU-TEC utilized an X-ray Fluorescence (XRF) Analyzer to determine if lead-based paint was present within the subject area. OCCU-TEC analyzed painted and coated surfaces in general accordance with MDHSS requirements. The yellow handrail on the first floor was confirmed to be a lead-containing component, no other lead-containing painted building materials were identified within the subject area.

This executive summary has been prepared to provide a brief outline of the activities completed during the investigation and a general overview of the results of the investigation. Additional detail regarding the methodology and results of the investigation are included the subsequent report. The report should be read in its entirety for a complete understanding of the investigation and results.

KEY TERMS AND ACRONYMS

EPA – United States Environmental Protection Agency

MDHHS – Missouri Department of Health and Human Services

AIHA – American Industrial Hygiene Association

HUD – United States Department of Housing and Urban Development

LBP – Lead-based Paint

XRF – X-Ray Fluorescent Analyzer

OSHA – Occupational Safety and Health Administration

1.0 INTRODUCTION

On March 9th, 2023, Mr. Justin Arnold of OCCU-TEC completed a limited lead-based paint testing of the Temple Hall construction area (subject property) located at 910 South John Q Hammons Parkway Springfield, MO 65897. The testing was completed at the request of Mr. Greg Gerken of Gerken in preparation of planned renovation within the building and was limited to the exterior portions of the building noted on the attached drawings.

2.0 METHODOLOGY

2.1 Lead-Based Paint

The limited lead-based paint testing was conducted in general accordance with all applicable state and local regulations. OCCU-TEC utilized an X-ray Florescence (XRF) Analyzer to determine if lead-based paint was present within the building.

XRF testing was conducted using Viken Detection Model Pb200i XRF detector, Serial #01098, General License #53-0720, utilizing a Cobalt - 57 radioisotope source with an activity level of 5.0 millicuries (mCi). XRF results are classified as positive if they are greater than or equal to the stated threshold for the instrument (1.0 mg/cm^2), and *negative* if they are *less than* the threshold.

The state of Missouri defines lead-based paint as any paint or other surface coating materials that contain lead equal to or in excess of 1.0 mg/cm^2 or more than five-tenths percent by weight. The lead testing data (Appendix D-1) will show all components that were tested, components that were tested at or above 1.0 mg/cm^2 are indicated by bold type and highlighted. If components are identified during renovation activities that were not tested, they too must be considered lead containing.

3.0 INVESTIGATION RESULTS

3.2 Lead-Based Paint Results

A material description and material locations of the lead-based paint identified at the Subject Property have been summarized below. It should be noted that samples taken at the site are representative of the material samples within the subject area.

Table 3.2 Lead-Based Paint Results Summary

XRF Reading	Material	Material Location	Material Description	Reading (mg/cm^2)
16 & 17	Metal	1st Floor	Yellow Handrail	1.9 & 2.0

mg/cm2 = milligrams per centimeter squared·

4.0 LIMITATIONS OF THE INSPECTION

OCCU-TEC identified and tested painted surfaces from the survey area of the Subject Property that were accessible at the time of the inspection. Additionally, the lead-based paint testing was limited to only those areas of the building that would be impacted in the scheduled renovation as per the OSHA Lead in Construction Standard (29 CFR 1926.62). This report should not be interpreted as a full HUD Lead-Based Paint Inspection or Risk Assessment.

This report is provided for the sole reliance by Gerken. Any reliance by other parties is prohibited without OCCU-TECs express written consent. If other parties are granted reliance on this report by OCCU-TEC, said parties are bound by the terms and conditions set forth in the original proposal.

5.0 RECOMMENDATIONS

If any materials are noted that may be disturbed during renovation that were not included during this assessment, they should be presumed to contain lead-based paint until sampling results indicate they are not considered LBP.

6.0 SIGNATURE(S)

OCCU-TEC appreciates the opportunity to provide Gerken with the above referenced professional services. If you have any questions regarding the contents of this report, please contact us at (816) 231-5580. Thank you for choosing OCCU-TEC.

Respectfully,

Kevin Heriford
Director EH&S Departments

Justin Arnold, CIEC
Project Manager (QA/QC)

7.0 REFERENCES

-*Lead in Construction Standard* - OSHA – 29 CFR §1926.62

APPENDICES

APPENDIX A

INSPECTOR QUALIFICATIONS

STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES

LEAD OCCUPATION LICENSE REGISTRATION

Issued to:

Justin E. Arnold

The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

Lead Risk Assessor
Category of License

Issuance Date:	**6/11/2022**
Expiration Date:	**6/11/2024**
License Number:	**120611-300003622**

Paula F. Nickelson
Acting Director
Department of Health and Senior Services

Lead Licensing Program, PO Box 570, Jefferson City, MO 65102

APPENDIX B

XRF ANALYSIS RESULTS

Company	Viken
Model	Pb200i
Type	XRF Lead Paint Analyzer
Serial Num.	1098
App Version	Pb200i-REL-4.0-29

Lead Based Paint Inspection
Missouri State University - Springfield
910 S John Q Hammons Pkwy Springfield, MO 65897

OCCU-TEC
Proven Ingenuity for People, Planet and Profits

Job Id	Reading #	Concentration	Units	3 SD	Result	Action Level	Nom Sec	Date	Time	User	Mode	Analytic Mode	Floor	Room	Side	Component	Color	Substrate	Condition
923112	1	1	mg/cm2	0.2	Calibration	1	5	3/9/2023	9:54:22	Arnold	Action Level	Lead Paint							
923112	2	0.9	mg/cm2	0.2	Calibration	1	5	3/9/2023	9:54:46	Arnold	Action Level	Lead Paint							
923112	3	0.9	mg/cm2	0.2	Calibration	1	5	3/9/2023	9:55:11	Arnold	Action Level	Lead Paint							
923112	4	0	mg/cm2	0.3	Calibration	1	2	3/9/2023	9:55:36	Arnold	Action Level	Lead Paint							
923112	5	0	mg/cm2	0.3	Calibration	1	2	3/9/2023	9:55:46	Arnold	Action Level	Lead Paint							
923112	6	0	mg/cm2	0.3	Calibration	1	2	3/9/2023	9:55:56	Arnold	Action Level	Lead Paint							
923112	7	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:03:24	Arnold	Action Level	Lead Paint	1st	Entry	Room Center	Ceiling	White	Plaster	Intact
923112	8	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:04:08	Arnold	Action Level	Lead Paint	1st	Entry	Room Center	Ceiling	White	Metal	Intact
923112	9	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:04:58	Arnold	Action Level	Lead Paint	1st	Entry	North	Door	Black	Metal	Intact
923112	10	0.4	mg/cm2	0.3	Negative	1	2	3/9/2023	10:05:20	Arnold	Action Level	Lead Paint	1st	Entry	North	Door Casing	Black	Metal	Intact
923112	11	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:05:38	Arnold	Action Level	Lead Paint	1st	Entry	North	Door Jamb	Black	Metal	Intact
923112	12	0.1	mg/cm2	0.4	Negative	1	1	3/9/2023	10:05:59	Arnold	Action Level	Lead Paint	1st	Entry	North	Window Frame	Black	Metal	Intact
923112	13	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:06:14	Arnold	Action Level	Lead Paint	1st	Entry	North	Window Sill	Black	Metal	Intact
923112	14	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:06:31	Arnold	Action Level	Lead Paint	1st	Entry	North	Hand Rail	Black	Metal	Intact
923112	15	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:06:47	Arnold	Action Level	Lead Paint	1st	Entry	South	Hand Rail	Black	Metal	Intact
923112	16	2	mg/cm2	0.3	Positive	1	2	3/9/2023	10:07:05	Arnold	Action Level	Lead Paint	1st	Entry	South	Hand Rail	Yellow	Metal	Intact
923112	17	1.9	mg/cm2	0.3	Positive	1	2	3/9/2023	10:07:30	Arnold	Action Level	Lead Paint	1st	Entry	South	Hand Rail	Yellow	Metal	Intact
923112	18	0.2	mg/cm2	0.3	Negative	1	2	3/9/2023	10:09:44	Arnold	Action Level	Lead Paint	1st	112	South	Window Frame	Black	Metal	Intact
923112	19	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:10:01	Arnold	Action Level	Lead Paint	1st	112	South	Window Sill	Black	Metal	Intact
923112	20	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:10:49	Arnold	Action Level	Lead Paint	1st	112	North	Cabinet Frame	White	Wood	Intact
923112	21	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:11:06	Arnold	Action Level	Lead Paint	1st	112	North	Cabinet Door	White	Wood	Intact
923112	22	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:11:42	Arnold	Action Level	Lead Paint	1st	112	North	Ceiling	White	Wood	Intact
923112	23	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:12:03	Arnold	Action Level	Lead Paint	1st	112	North	Ceiling	White	Drywall	Intact
923112	24	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:12:34	Arnold	Action Level	Lead Paint	1st	112	East	Wall	White	Drywall	Intact
923112	25	0.2	mg/cm2	0.3	Negative	1	2	3/9/2023	10:13:16	Arnold	Action Level	Lead Paint	1st	110	East	Wall	Pink	Plaster	Intact
923112	26	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:13:38	Arnold	Action Level	Lead Paint	1st	110	East	Wall	Pink	Concrete	Intact
923112	27	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:13:53	Arnold	Action Level	Lead Paint	1st	110	West	Wall	Pink	Concrete	Intact
923112	28	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:14:09	Arnold	Action Level	Lead Paint	1st	110	West	Wall	Pink	Drywall	Intact
923112	29	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:14:43	Arnold	Action Level	Lead Paint	1st	110	West	Ceiling	White	Drywall	Intact
923112	30	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:15:03	Arnold	Action Level	Lead Paint	1st	110	West	Ceiling	White	Wood	Intact
923112	31	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:15:45	Arnold	Action Level	Lead Paint	1st	110	North	Cabinet Door	Purple	Wood	Intact
923112	32	0	mg/cm2	0.3	Negative	1	1	3/9/2023	10:15:59	Arnold	Action Level	Lead Paint	1st	110	North	Cabinet Frame	Purple	Wood	Intact
923112	33	0.3	mg/cm2	0.3	Negative	1	2	3/9/2023	10:16:32	Arnold	Action Level	Lead Paint	1st	110	North	Vent Cover	Purple	Metal	Intact
923112	34	0.2	mg/cm2	0.3	Negative	1	1	3/9/2023	10:17:06	Arnold	Action Level	Lead Paint	1st	108	North	Vent Cover	White	Metal	Intact
923112	35	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:17:31	Arnold	Action Level	Lead Paint	1st	108	North	Cabinet Door	White	Wood	Intact
923112	36	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:17:47	Arnold	Action Level	Lead Paint	1st	108	North	Cabinet Frame	White	Wood	Intact
923112	37	0.5	mg/cm2	0.3	Negative	1	2	3/9/2023	10:18:23	Arnold	Action Level	Lead Paint	1st	108	West	Wall	Purple	Plaster	Intact
923112	38	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:19:13	Arnold	Action Level	Lead Paint	1st	108	North	Ceiling	White	Wood	Intact
923112	39	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:19:33	Arnold	Action Level	Lead Paint	1st	108	North	Ceiling	White	Drywall	Intact
923112	40	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:20:10	Arnold	Action Level	Lead Paint	1st	108	North	Window Frame	Black	Metal	Intact
923112	41	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:20:26	Arnold	Action Level	Lead Paint	1st	108	North	Window Sill	Black	Metal	Intact
923112	42	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:20:58	Arnold	Action Level	Lead Paint	1st	106	North	Window Sill	Black	Metal	Intact
923112	43	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:21:19	Arnold	Action Level	Lead Paint	1st	106	North	Window Frame	Black	Metal	Intact
923112	44	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:21:49	Arnold	Action Level	Lead Paint	1st	106	North	Cabinet Door	White	Wood	Intact
923112	45	0	mg/cm2	0.3	Negative	1	1	3/9/2023	10:22:05	Arnold	Action Level	Lead Paint	1st	106	North	Cabinet Frame	White	Wood	Intact
923112	46	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:22:29	Arnold	Action Level	Lead Paint	1st	106	North	Vent Cover	White	Metal	Intact
923112	47	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:23:00	Arnold	Action Level	Lead Paint	1st	106	East	Wall	White	Plaster	Intact
923112	48	0.2	mg/cm2	0.3	Negative	1	2	3/9/2023	10:25:14	Arnold	Action Level	Lead Paint	1st	Lecture lobby	North	Window Frame	Black	Metal	Intact

Black = Negative
Blue = Calibration/Null
Red = Positive

Intact = Paint in good condition
Fair = below De minimis levels
Poor = Above De minimis levels

Company	Viken
Model	Pb200i
Type	XRF Lead Paint Analyzer
Serial Num.	1098
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Job Id	Reading #	Concentration	Units	3 SD	Result	Action Level	Nom Sec	Date	Time	User	Mode	Analytic Mode	Floor	Room	Side	Component	Color	Substrate	Condition
923112	49	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:25:33	Arnold	Action Level	Lead Paint	1st	Lecture lobby	North	Window Sill	Black	Metal	Intact
923112	50	0.3	mg/cm2	0.3	Negative	1	2	3/9/2023	10:25:54	Arnold	Action Level	Lead Paint	1st	Lecture lobby	North	Hand Rail	Black	Metal	Intact
923112	51	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:26:13	Arnold	Action Level	Lead Paint	1st	Lecture lobby	North	Door	Black	Metal	Intact
923112	52	0	mg/cm2	0.3	Negative	1	1	3/9/2023	10:26:32	Arnold	Action Level	Lead Paint	1st	Lecture lobby	North	Door Casing	Black	Metal	Intact
923112	53	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:26:47	Arnold	Action Level	Lead Paint	1st	Lecture lobby	North	Door Jamb	Black	Metal	Intact
923112	54	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:29:03	Arnold	Action Level	Lead Paint	2nd	stairwell	West	Wall	Green	Concrete	Intact
923112	55	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:30:38	Arnold	Action Level	Lead Paint	2nd	204	East	Wall	White	Drywall	Intact
923112	56	0.7	mg/cm2	0.2	Negative	1	5	3/9/2023	10:31:05	Arnold	Action Level	Lead Paint	2nd	204	West	Wall	Purple	Drywall	Intact
923112	57	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:32:12	Arnold	Action Level	Lead Paint	2nd	204	North	Cabinet Door	White	Wood	Intact
923112	58	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:32:29	Arnold	Action Level	Lead Paint	2nd	204	North	Cabinet Frame	White	Wood	Intact
923112	59	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:33:10	Arnold	Action Level	Lead Paint	2nd	204	North	Ceiling	White	Wood	Intact
923112	60	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:33:31	Arnold	Action Level	Lead Paint	2nd	204	North	Ceiling	White	Drywall	Intact
923112	61	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:35:03	Arnold	Action Level	Lead Paint	2nd	202	North	Ceiling	White	Drywall	Intact
923112	62	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:35:22	Arnold	Action Level	Lead Paint	2nd	202	North	Ceiling	White	Wood	Intact
923112	63	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:35:50	Arnold	Action Level	Lead Paint	2nd	202	North	Cabinet Door	White	Wood	Intact
923112	64	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:36:05	Arnold	Action Level	Lead Paint	2nd	202	North	Cabinet Frame	White	Wood	Intact
923112	65	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:36:31	Arnold	Action Level	Lead Paint	2nd	202	North	Vent Cover	White	Metal	Intact
923112	66	0.2	mg/cm2	0.3	Negative	1	2	3/9/2023	10:36:55	Arnold	Action Level	Lead Paint	2nd	202	North	Window Frame	Black	Metal	Intact
923112	67	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:37:14	Arnold	Action Level	Lead Paint	2nd	202	North	Window Sill	Black	Metal	Intact
923112	68	0.9	mg/cm2	0.2	Negative	1	5	3/9/2023	10:37:44	Arnold	Action Level	Lead Paint	2nd	202	East	Wall	Yellow	Drywall	Intact
923112	69	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:39:31	Arnold	Action Level	Lead Paint	2nd	men's rr	East	Wall	White	Drywall	Intact
923112	70	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:39:41	Arnold	Action Level	Lead Paint	2nd	men's rr	East	Wall	White	Drywall	Intact
923112	71	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:40:03	Arnold	Action Level	Lead Paint	2nd	men's rr	East	Ceiling	White	Drywall	Intact
923112	72	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:40:25	Arnold	Action Level	Lead Paint	2nd	men's rr	South	Wall	White	Drywall	Intact
923112	73	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:40:46	Arnold	Action Level	Lead Paint	2nd	men's rr	North	Wall	White	Drywall	Intact
923112	74	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:41:29	Arnold	Action Level	Lead Paint	2nd	men's rr	South	Door	White	Metal	Intact
923112	75	0.5	mg/cm2	0.3	Negative	1	2	3/9/2023	10:41:44	Arnold	Action Level	Lead Paint	2nd	men's rr	South	Door Casing	White	Metal	Intact
923112	76	0.5	mg/cm2	0.3	Negative	1	2	3/9/2023	10:41:58	Arnold	Action Level	Lead Paint	2nd	men's rr	South	Door Jamb	White	Metal	Intact
923112	77	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:45:17	Arnold	Action Level	Lead Paint	3rd	a11ad504	East	Window Frame	Black	Metal	Intact
923112	78	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:45:36	Arnold	Action Level	Lead Paint	3rd	a11ad504	East	Window Sill	Black	Metal	Intact
923112	79	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:46:51	Arnold	Action Level	Lead Paint	3rd	a11ad504	East	Door	Black	Metal	Intact
923112	80	0.5	mg/cm2	0.3	Negative	1	2	3/9/2023	10:47:06	Arnold	Action Level	Lead Paint	3rd	a11ad504	East	Door Casing	Black	Metal	Intact
923112	81	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:47:27	Arnold	Action Level	Lead Paint	3rd	a11ad504	East	Door Jamb	Black	Metal	Intact
923112	82	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:48:45	Arnold	Action Level	Lead Paint	3rd	312	North	Cabinet Door	Green	Wood	Intact
923112	83	0	mg/cm2	0.4	Negative	1	1	3/9/2023	10:49:05	Arnold	Action Level	Lead Paint	3rd	312	North	Cabinet Frame	Green	Wood	Intact
923112	84	0.3	mg/cm2	0.3	Negative	1	2	3/9/2023	10:49:36	Arnold	Action Level	Lead Paint	3rd	312	North	Vent Cover	Green	Metal	Intact
923112	85	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:50:24	Arnold	Action Level	Lead Paint	3rd	312	East	Wall	Green	Drywall	Intact
923112	86	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:50:52	Arnold	Action Level	Lead Paint	3rd	312	East	Ceiling	White	Drywall	Intact
923112	87	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:52:12	Arnold	Action Level	Lead Paint	3rd	310	East	Ceiling	White	Drywall	Intact
923112	88	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:52:39	Arnold	Action Level	Lead Paint	3rd	310	West	Wall	White	Drywall	Intact
923112	89	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:53:23	Arnold	Action Level	Lead Paint	3rd	310	North	Cabinet Door	White	Wood	Intact
923112	90	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:53:38	Arnold	Action Level	Lead Paint	3rd	310	North	Cabinet Frame	White	Wood	Intact
923112	91	0.2	mg/cm2	0.3	Negative	1	2	3/9/2023	10:54:15	Arnold	Action Level	Lead Paint	3rd	310	North	Vent Cover	White	Metal	Intact
923112	92	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:54:42	Arnold	Action Level	Lead Paint	3rd	310	North	Window Frame	Black	Metal	Intact
923112	93	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:55:01	Arnold	Action Level	Lead Paint	3rd	310	North	Window Sill	Black	Metal	Intact
923112	94	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	10:56:51	Arnold	Action Level	Lead Paint	3rd	300	North	Window Sill	Black	Metal	Intact
923112	95	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:57:08	Arnold	Action Level	Lead Paint	3rd	300	North	Window Frame	Black	Metal	Intact
923112	96	0	mg/cm2	0.3	Negative	1	2	3/9/2023	10:57:39	Arnold	Action Level	Lead Paint	3rd	300	West	Wall	White	Drywall	Intact

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Blue = Calibration/Null
Red = Positive

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Poor = Above De minimis levels

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Job Id	Reading #	Concentration	Units	3 SD	Result	Action Level	Nom Sec	Date	Time	User	Mode	Analytic Mode	Floor	Room	Side	Component	Color	Substrate	Condition
923112	97	0	mg/cm2	0.3	Negative	1	2	3/9/2023	11:01:24	Arnold	Action Level	Lead Paint	4th	men's rr	East	Wall	White	Drywall	Intact
923112	98	0	mg/cm2	0.3	Negative	1	2	3/9/2023	11:01:42	Arnold	Action Level	Lead Paint	4th	men's rr	South	Wall	White	Drywall	Intact
923112	99	0.1	mg/cm2	0.3	Negative	1	2	3/9/2023	11:02:00	Arnold	Action Level	Lead Paint	4th	men's rr	North	Wall	White	Drywall	Intact
923112	100	0.2	mg/cm2	0.3	Negative	1	2	3/9/2023	11:02:22	Arnold	Action Level	Lead Paint	4th	men's rr	East	Ceiling	White	Drywall	Intact
923112	101	0.9	mg/cm2	0.2	Calibration	1	5	3/9/2023	11:07:18	Arnold	Action Level	Lead Paint							Intact
923112	102	1	mg/cm2	0.2	Calibration	1	5	3/9/2023	11:07:47	Arnold	Action Level	Lead Paint							Intact
923112	103	0.9	mg/cm2	0.2	Calibration	1	5	3/9/2023	11:08:09	Arnold	Action Level	Lead Paint							Intact
923112	104	0	mg/cm2	0.3	Calibration	1	2	3/9/2023	11:08:41	Arnold	Action Level	Lead Paint							Intact
923112	105	0	mg/cm2	0.3	Calibration	1	2	3/9/2023	11:08:54	Arnold	Action Level	Lead Paint							Intact
923112	106	0	mg/cm2	0.3	Calibration	1	2	3/9/2023	11:09:05	Arnold	Action Level	Lead Paint							Intact

Black = Negative
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Intact = Paint in good condition
Fair = below De minimis levels
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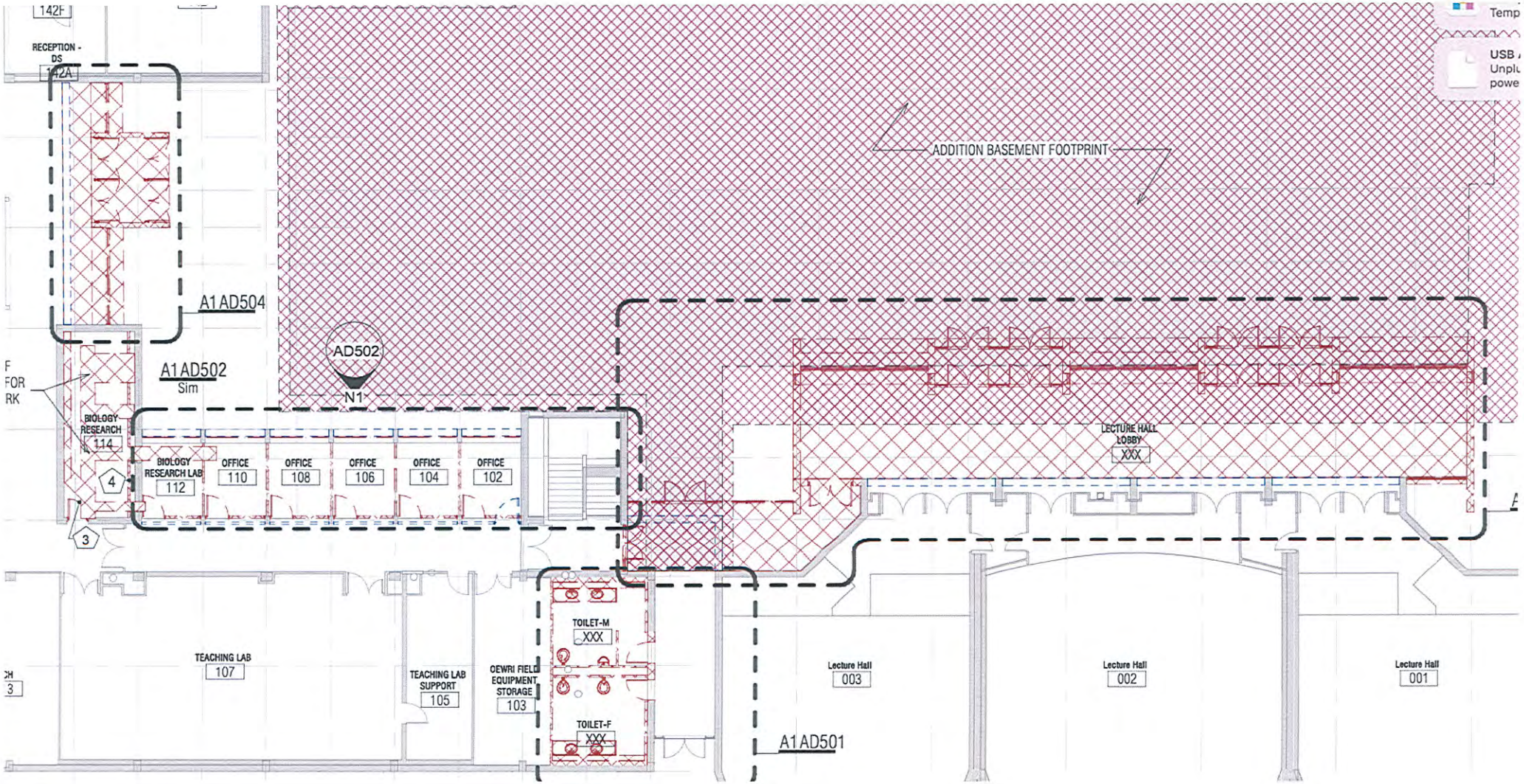
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142A
ADDITION BASEMENT FOOTPRINT
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A1AD502
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AD502
N1
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112
OFFICE
110
OFFICE
108
OFFICE
106
OFFICE
104
OFFICE
102
LECTURE HALL LOBBY
XXX
4
3
TOILET-M
XXX
TOILET-F
XXX
TEACHING LAB
107
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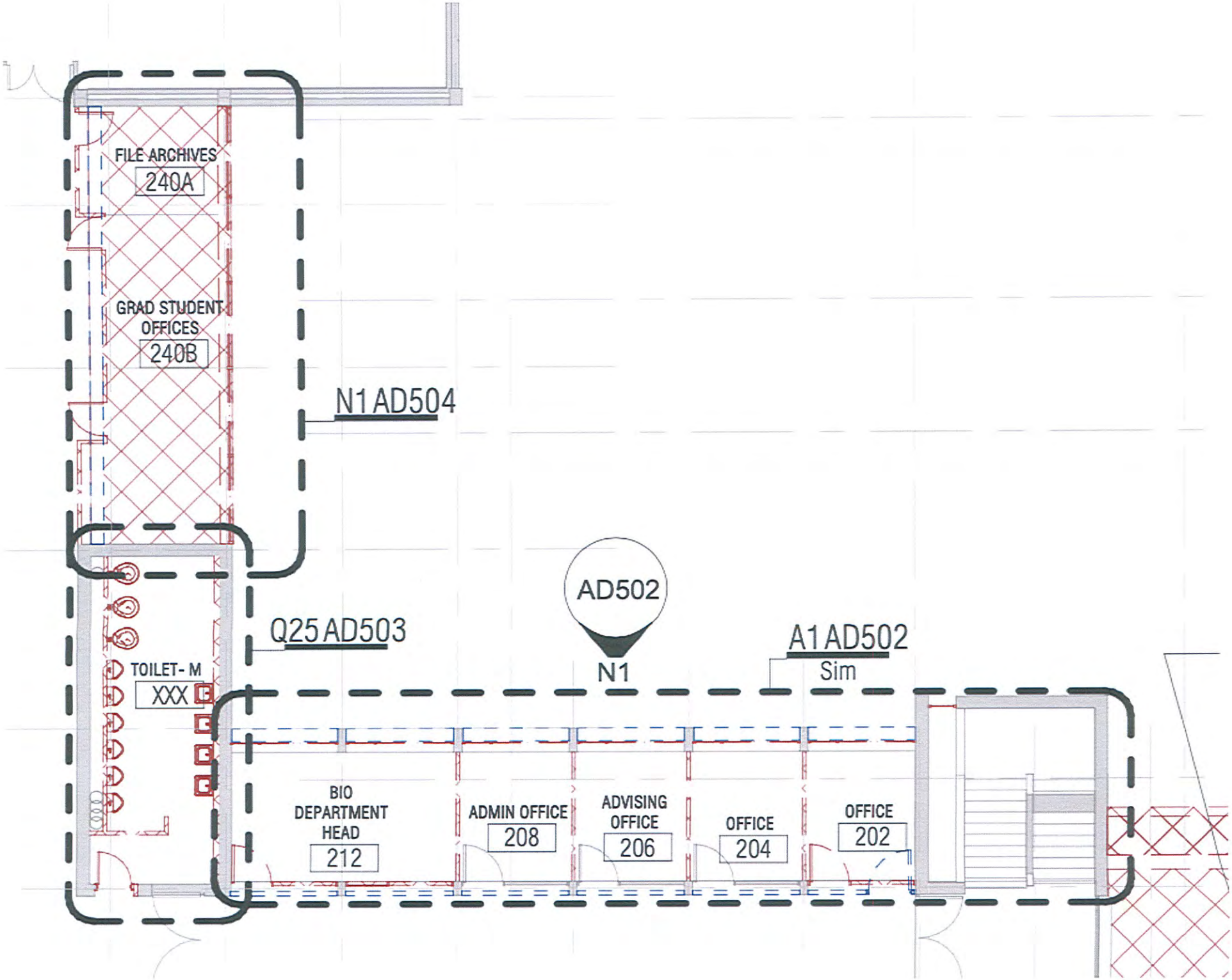
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240B
N1 AD504
AD502
N1
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BIO DEPARTMENT HEAD
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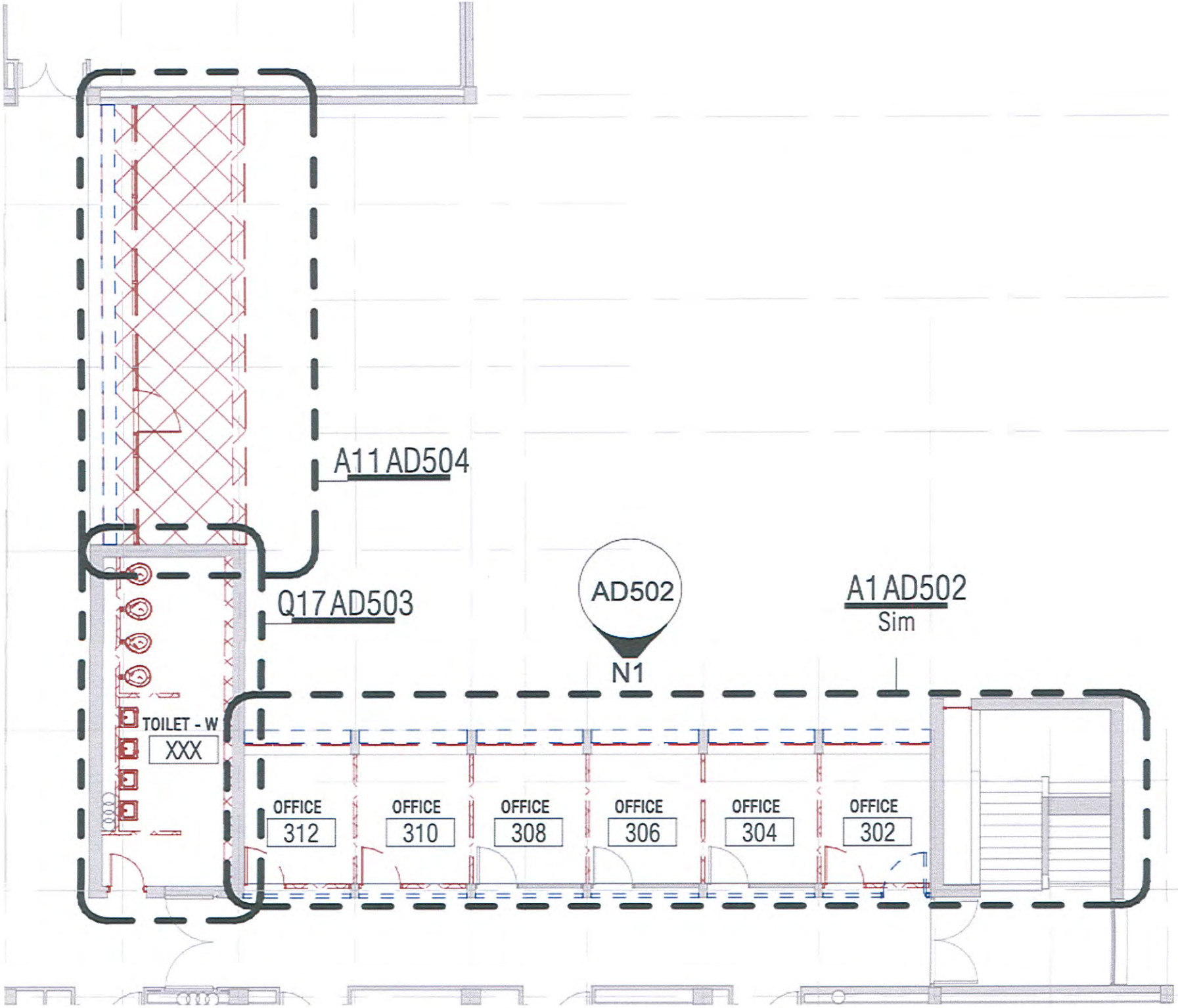
ADMIN OFFICE
208
ADVISING OFFICE
206
OFFICE
204
OFFICE
202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Q17AD503
AD502
N1
A1AD502
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TOILET - W
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OFFICE
312
OFFICE
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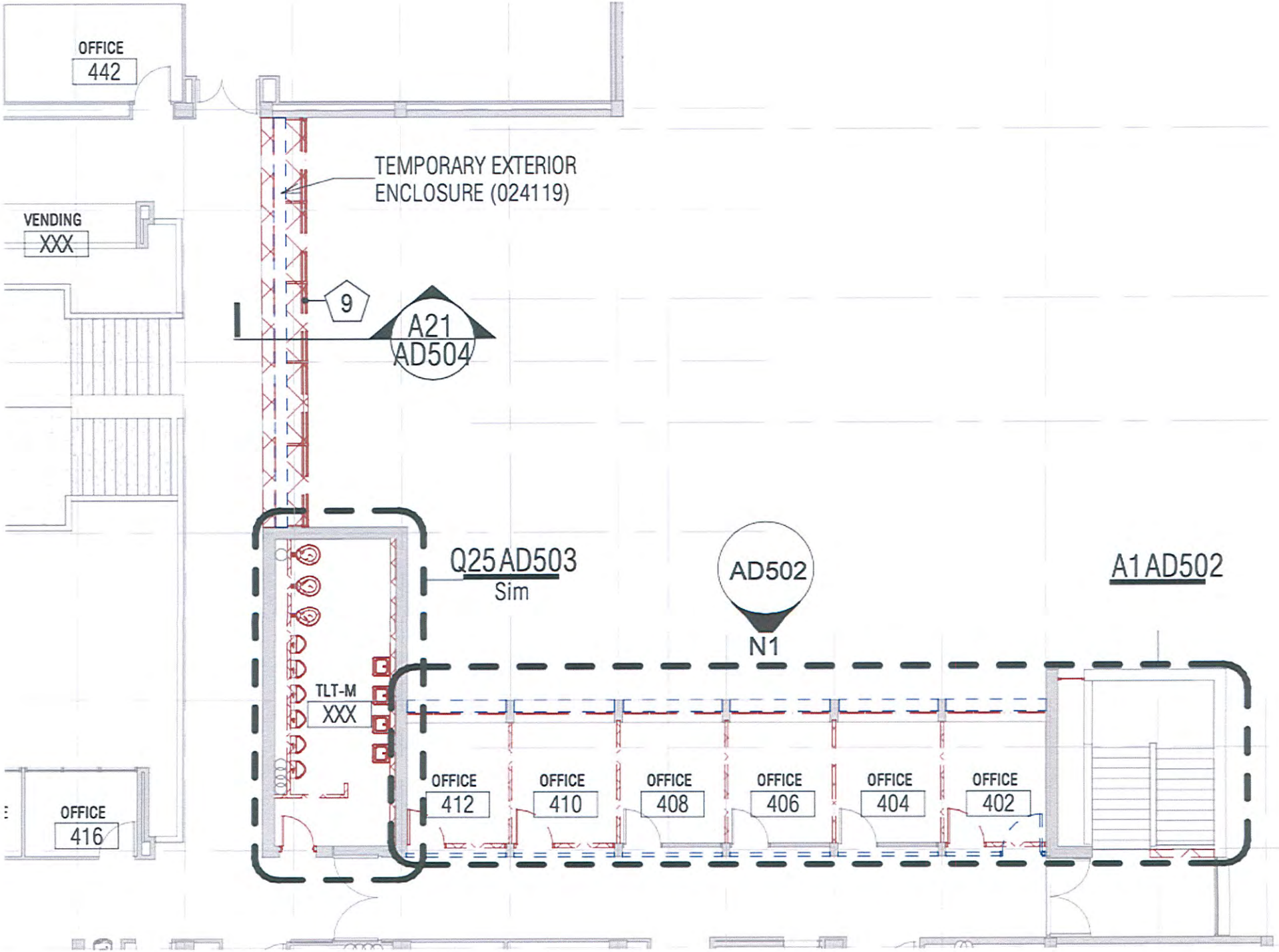
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APPENDIX E

Section 106 Documents:

Memorandum of Agreement which include:

Map of Defined Project Area

Letter from NIST dated 2/3/2023 determining eligibility and adverse affect

Letter from SHPO dated 2/7/2023 concurring eligibility and adverse affect

Correspondence from ACHP dated 3/9/23 declining participation

Correspondence from Springfield Landmarks Board dated 3/2/23 acknowledging receipt of notice

Correspondence from the Delaware Tribe Historic Preservation Office dated 3/31/23 language clarification

Correspondence from the Kickapoo Tribe of Oklahoma dated 3/31/23 declining participation and notification request

MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY,
HEALTH RESOURCES AND SERVICES ADMINISTRATION, THE MISSOURI STATE
HISTORIC PRESERVATION OFFICER, AND MISSOURI STATE UNIVERSITY
REGARDING THE ADDITION TO TEMPLE HALL – MISSOURI STATE UNIVERSITY
910 SOUTH JOHN Q. HAMMONS PARKWAY
SPRINGFIELD, GREENE COUNTY, MISSOURI

WHEREAS, the National Institute of Standards and Technology (NIST) and the Health Resources and Services Administration (HRSA) intend to provide Congressionally delegated construction grants to fund the Addition to Temple Hall (undertaking) at Missouri State University (MSU); and

WHEREAS, the undertaking was identified for funding under the Congressionally mandated NIST and HRSA Construction Grants Program, which sought applications from Congressionally identified entities for "NIST Extramural Construction" projects to be funded by NIST that have been identified in the Joint Explanatory Statement accompanying the Consolidated Appropriations Act, 2022, P.L. 117-103; and

WHEREAS, NIST will serve as the lead agency, acting on behalf of the Health Resources and Services Administration (HRSA) [pursuant to 36 CFR § 800.2(a)(2)], which also intends to provide a Congressionally delegated construction grant to fund the undertaking, whereby funding is limited to the named entities and for the purposes identified in the Consolidated Appropriations Act, 2022, P.L. 117-103, for congressionally directed spending projects that relate to the construction and renovation (including equipment) of health care and other facilities; and

WHEREAS, the undertaking consists of the construction of an addition to the northeast corner of Temple Hall (910 S. John Q. Hammons Parkway), to provide additional laboratory, office, and support space in the existing science building, whereby the addition would obscure the original east entrance and require demolition of portions of the north and east facades and removal of the original landscape features at the northeast corner of the building. The project provides interior renovations at the juncture with the addition and site work including underground site utilities, associated walks and landscaping, and exterior building repairs/modifications to existing building to facilitate the addition;
and

WHEREAS, NIST has defined the Area of Potential Effect (APE) for direct effects as the historic site boundary of the building, which is the West Mall (formerly Lombard Street) on the north, the vacated Kings Avenue on the east, Belmont Street on the south, and John Q. Hammons Parkway (formerly Dollison Street) on the west (identified as Project Area on Appendix A); and

WHEREAS, NIST has determined that the undertaking will have an adverse effect on Temple Hall, which is eligible for listing in the National Register of Historic Places under **Criterion C** in the area of Architecture, through the demolition of portions of the north and east facades at the northeast corner of the building, as well as the demolition of the landscape features at the northeast plaza to accommodate a new addition in that location (Appendix B); and

WHEREAS, NIST has consulted with the Missouri State Historic Preservation Officer (SHPO) and prepared this Memorandum of Agreement (MOA) pursuant to 36 CFR § 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); and

WHEREAS, in a letter dated 7 February 2023 (Appendix C), SHPO concurred that the undertaking will have an adverse effect on a historic resource (Temple Hall); and

WHEREAS, NIST has consulted with Missouri State University (MSU) regarding the effects of the undertaking on historic properties and has invited them to sign this MOA as an invited signatory; and

WHEREAS, the Vice President for Administrative Services or the University Architect and Director of Planning, Design and Construction be authorized to sign the agreement and perform those acts necessary to carry out and perform the terms of the agreement associated with the undertaking. With approval of the project budget, authorization is also provided to further sign agreements or amendments to existing agreements directly related to this project as long as the approved project budget is not exceeded; and

WHEREAS, in an electronic submittal dated 3 February 2023, NIST notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect in accordance with 36 CFR § 800.6(a)(1); and in a letter dated 9 March 2023 (Appendix D), the ACHP chose *not to* participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

WHEREAS, MSU has posted a public notice of the undertaking on its website 7 March 2023; and

WHEREAS, in a letter dated 1 March 2023, NIST notified the Landmarks Board of the City of Springfield, Missouri, a Certified Local Government, of the adverse effect and inviting the Landmarks Board to participate as a consulting party in the preparation of this Memorandum of Agreement (MOA) in accordance with 36 CFR § 800; and in an email dated 2 March 2023 (Appendix E), the Landmarks Board of the City of Springfield, Missouri has chosen to participate in the consultation; and

WHEREAS, NIST has identified the Cherokee Nation, Delaware Nation, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Kickapoo Tribe in Kansas, Kickapoo Tribe of Oklahoma, Osage Nation, Shawnee Tribe, and United Keetoowah Band of Cherokee Indians in Oklahoma as federally recognized tribes with potential interest in Springfield, Missouri and pursuant to 36 CFR § 800.3, sent a letter on 1 March 2023, inviting all to participate as a consulting parties in the preparation of this Memorandum of Agreement (MOA); and

WHEREAS, the Delaware Tribe of Indians participated in the consultation and proposed the revision of Stipulation I.3 to incorporate the perspective of the American Indian peoples who frequented the area prior to MSU's acquisition of the site (Appendix F); and

WHEREAS, in a letter dated 31 March 2023, the Kickapoo Tribe of Oklahoma did not object to the undertaking (Appendix F); and

WHEREAS, the following tribes, the Cherokee Nation, Delaware Nation, Eastern Shawnee Tribe of Oklahoma, Kickapoo Tribe in Kansas, Osage Nation, Shawnee Tribe, and United Keetoowah Band of Cherokee Indians in Oklahoma, did not respond to the notice nor participate in the Consulting Parties meeting; and

NOW, THEREFORE, NIST, HRSA, SHPO and MSU agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

NIST shall ensure that the following measures are carried out to mitigate the adverse effects:

I. Documentation

1. Prior to initiation of demolition and renovation activities, MSU will contract with a 36CFR61 qualified Historian or Architectural Historian (consultant) who will complete the recordation report which will include the following:

    a. At least ten (10) 8" x 10" black and white photographs of the building. These will be exterior and interior photographs including views of each façade and significant architectural details. Photographs should include representative views of architectural details, and other significant features of the property including interior features listed as significant in the third whereas clause. The photo submission will include photographs printed on archival-stable paper, labeled on the back with soft lead pencil, an archival CD with the original color .TIF images, and photo key and map documenting the location and direction of each photo all of which meet the National Register Photo Policy Standards;

    b. A legible scale archival copy of the historic plans;

    c. A sketch site plan;

    d. A narrative description of the building; and

    e. A narrative report detailing the history of the building, its designer/builder, and use. This report shall establish the significance of the building and place it in context with the history and development of the university as appropriate. The research shall utilize historic source material including but not limited to maps, drawings, newspapers, and oral history if available.

f. The recordation report shall be submitted in draft form to the SHPO for review and comment. The SHPO will comment on the adequacy of the report within thirty (30) days of receipt or will be seen as accepting the report.

g. Once comments, if any, are received from the SHPO, MSU will produce three physical and digital copies of the narrative building description and report, photographs, and floor and site plans. One copy will be provided to the SHPO and the others will be provided to the MSU Archives and the State Historical Society of Missouri.

2. MSU may submit the physical documentation in a digital format (photographs, floor plans, and site plans) for acceptance in advance of the narrative report (Stipulations I.a. to c.); selective demolition may proceed upon written notification by the SHPO after physical documentation has been reviewed. The SHPO will have thirty (30) days from receipt to review and comment on the physical documentation or will be seen as accepting it and demolition/removal may proceed.

3. In consultation with MSU, its federal partners, and SHPO, the Consultant shall develop an interpretive history display regarding the history of the historic property that will be installed in the property by MSU once renovations are complete. The history shall present the perspectives of the American Indian peoples who frequented the area prior to the founding of the State, City, and University, the development and history of the building and its connection to the university and the brutalist architectural movement; and describe what events occurred through photographs and other visual interpretation. The display shall include, but not be limited to, text, images, and historic photographs. MSU shall submit a draft of the proposed display to SHPO for review and comment prior to its installation in Temple Hall. The SHPO shall have thirty (30) days from receipt to review and comment on the draft display.

II. Duration – This MOA will expire if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, NIST may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation V (Amendments) below.

III. Unanticipated Discoveries – In the event that archeological materials are encountered, work shall be halted and NIST and SHPO shall consult on procedures to follow to determine the Register eligibility of archaeological resources and to evaluate the adverse effects of the Project on such resources. For sites of Native American origin, this consultation shall include the Cherokee Nation, Delaware Nation, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Kickapoo Tribe in Kansas, Kickapoo Tribe of Oklahoma, Osage Nation, Shawnee Tribe, and United Keetoowah Band of Cherokee Indians in Oklahoma.

1. NIST shall consult with the SHPO to develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize or mitigate project adverse effects on archaeological sites eligible for the National Register.

2. NIST shall ensure that a determination, finding, or agreement is supported by sufficient documentation to enable any reviewing parties to understand its basis.

3. If human remains are discovered at any time during the implementation of this Project, the university shall follow the provisions of the Native American Graves Protection and Repatriation Act (25 USC Section 3001) and Missouri Unmarked Human Burial Sites Act, §194.400 - 194.410, RSMo as appropriate.

IV. Dispute Resolution – Should any signatory to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, NIST shall consult with such party to resolve the objection. If NIST determines such objection cannot be resolved, NIST will:

1. Forward all documentation relevant to the dispute, including NIST's proposed resolution, to the ACHP. The ACHP shall provide NIST with its advice on the resolution within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, NIST shall prepare a written response that takes into account any timely advice or comments regarding the dispute from ACHP, signatories, and consulting parties, and provide them with a copy of this written response. NIST will then proceed according to its final decision.

2. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, NIST may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, NIST shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

3. NIST's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

V. Amendments – This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

VI. Termination – If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation V, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, NIST must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and

respond to the comments of the ACHP under 36 CFR § 800.7. NIST shall notify the signatories as to the course of action it will pursue.

VII. ELECTRONIC SIGNATURE

Each party agrees a person may execute this document by electronic symbol or process attached to or logically associated with the document, with an intent to sign the document and by a method that must include a feature to verify the identity of the signer and the authenticity of the document, commonly referred to as verified electronic signature. Each party further agrees to accept in-person signature with ink for such party who agrees, but does not wish to or have access to adequate technology to sign electronically.

VIII. COUNTERPARTS

This document may be signed in two or more counterparts, each of which shall be deemed an original for all purposes, and all of which when taken together shall be considered one and the same agreement.

IX. EXECUTION

NIST shall submit an executed copy of this Memorandum of Agreement and supporting documentation, pursuant to 36 CFR 800.11(f), to the ACHP and all signatories prior to approving the undertaking.

Execution of this MOA by NIST and SHPO and implementation of its terms evidence that NIST has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY,
HEALTH RESOURCES AND SERVICES ADMINISTRATION, THE MISSOURI STATE
HISTORIC PRESERVATION OFFICER, AND MISSOURI STATE UNIVERSITY
REGARDING THE ADDITION TO TEMPLE HALL – MISSOURI STATE UNIVERSITY
910 SOUTH JOHN Q. HAMMONS PARKWAY
SPRINGFIELD, GREENE COUNTY, MISSOURI

Signed:

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

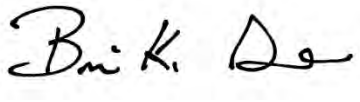
Phillip W. Neuberg April 5, 2023

By: Phillip W. Neuberg, FAIA Date:
NIST Federal Preservation Officer

MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY,
HEALTH RESOURCES AND SERVICES ADMINISTRATION, THE MISSOURI STATE
HISTORIC PRESERVATION OFFICER, AND MISSOURI STATE UNIVERSITY
REGARDING THE ADDITION TO TEMPLE HALL – MISSOURI STATE UNIVERSITY
910 SOUTH JOHN Q. HAMMONS PARKWAY
SPRINGFIELD, GREENE COUNTY, MISSOURI

Signed:

MISSOURI STATE HISTORIC PRESERVATION OFFICER



04/07/2023

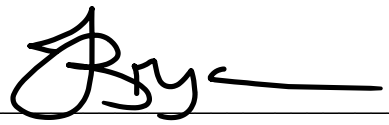
By: Brian Stith
Deputy Director Division of State Parks and
Deputy Missouri State Historic Preservation Officer

Date:

MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY,
HEALTH RESOURCES AND SERVICES ADMINISTRATION, THE MISSOURI STATE
HISTORIC PRESERVATION OFFICER, AND MISSOURI STATE UNIVERSITY
REGARDING THE ADDITION TO TEMPLE HALL – MISSOURI STATE UNIVERSITY
910 SOUTH JOHN Q. HAMMONS PARKWAY
SPRINGFIELD, GREENE COUNTY, MISSOURI

Signed:

HEALTH RESOURCES AND SERVICES ADMINISTRATION (HRSA)



4/7/2023

By: Julia H. Bryan, DPA, MPH, CHES
Captain, U.S. Public Health Service
Director, Office of Special Activities
Office of Federal Assistance Management
Health Resources and Services Administration

Date:

MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY,
HEALTH RESOURCES AND SERVICES ADMINISTRATION, THE MISSOURI STATE
HISTORIC PRESERVATION OFFICER, AND MISSOURI STATE UNIVERSITY
REGARDING THE ADDITION TO TEMPLE HALL – MISSOURI STATE UNIVERSITY
910 SOUTH JOHN Q. HAMMONS PARKWAY
SPRINGFIELD, GREENE COUNTY, MISSOURI

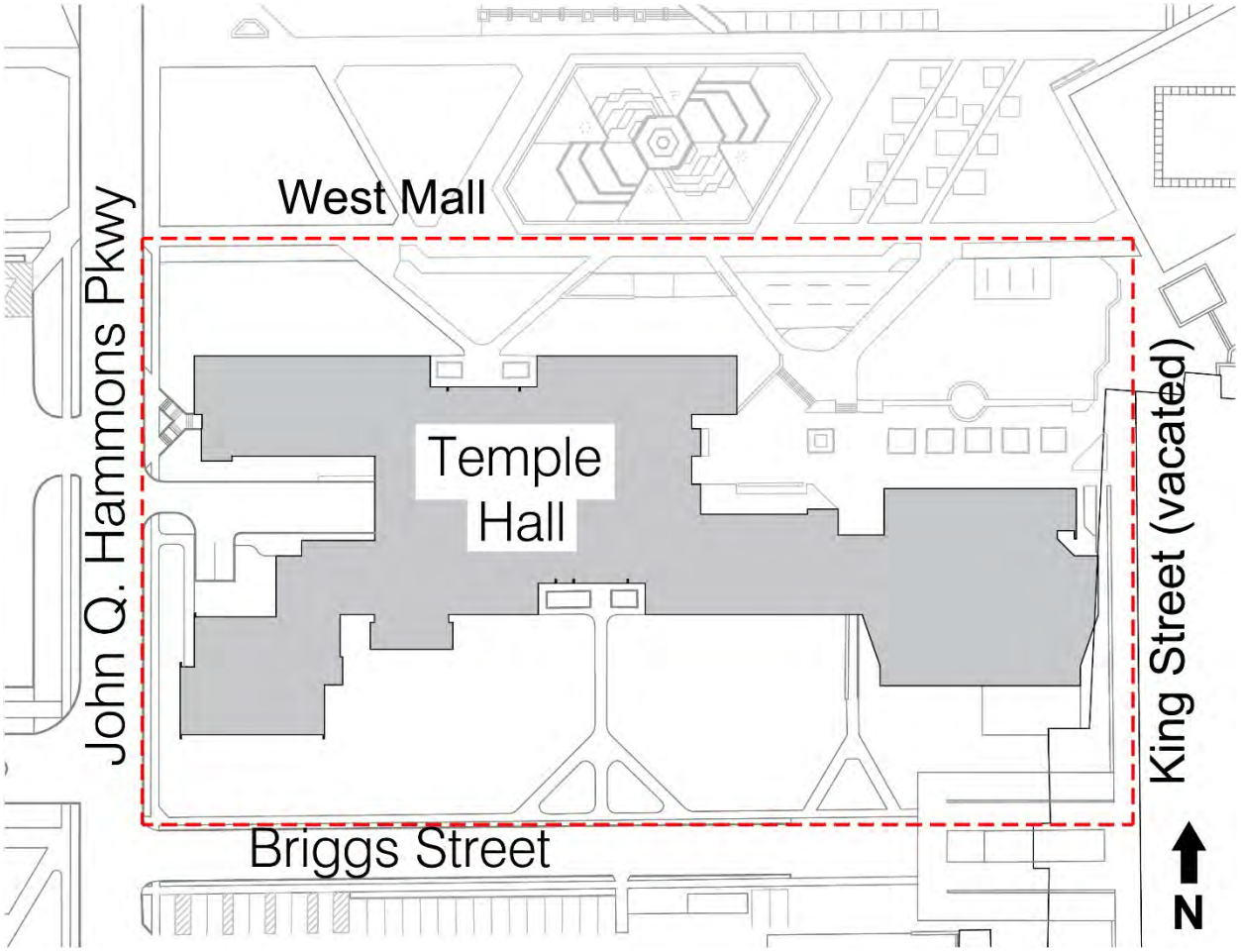
Signed:

MISSOURI STATE UNIVERSITY

Matthew D. Morris 4/6/23

By: Matthew D. Morris Date:
Vice President of Administrative Services
Missouri State University

Appendix A – Project Area



Appendix B – NIST Letter to SHPO
3 February 2023

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE

3 February 2023

Dr. Toni Prawl
State Historic Preservation Officer
Missouri Department of Natural Resources
Post Office Box 176
Jefferson City, MO 65102-0176

Re: Addition to Temple Hall at Missouri State University – SHPO project #008-GR-23

Dear Dr. Prawl,

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the National Institute of Standards and Technology (NIST) is providing information for your review regarding the above-referenced project that involves congressionally mandated federal funding to be provided by NIST and by the Health Resources and Services Administration (HRSA) for an addition to Temple Hall, a Brutalist styled structure built in 1971 and recently determined eligible for listing in the National Register of Historic Places for local significance under Criterion C (See attached communication from NIST to MSU and from SHPO to MSU). For the purpose of this Undertaking, NIST shall serve as the lead Federal Agency [36 CFR 800.2(2)]. Based upon our documentary research and our joint on-site evaluation of the property on 30 January 2023, the Area of Potential Effect (APE) or boundary of the project undertaking has been defined as that depicted on the original Planting Plan by the architects Kivett & Myers (see attached drawing). As such, and in accordance with the implementing regulations for Section 106 found at 36 CFR Part 800, we are seeking your comments on our APE delineation and your concurrence on our finding of **Adverse Effect**

Project Summary

The proposed Undertaking involves an addition to the northeast of the original building perimeter and within the existing exterior plaza which serves as a transitional, sunken entry plaza to the scientific research facility. The project will be located vicinity of 901 South National, Springfield MO, 65897 at Temple Hall, 910 South John Q. Hammons Parkway, Springfield 65897. Sensitively designed to provide a much needed additional 72,000 (approximate) square feet of scientific research space by BNIM Architects, and in consultation Tom Nelson, Temple Hall's original architect at Kivett & Myers, the proposed design expresses a sophisticated understanding of the stylistic motifs that characterize the original design. Nonetheless, in order to integrate the avoid subsurface utility chases located to the south placement of the four story addition to the north and east demolishes the original landscaped entry plaza as well as an original lecture hall lobby and limited elements of the façade. Despite the fact that the overall design of the new addition comports otherwise with

principles of the Secretary of the of the Interior's Standards for the Treatment of Historic Structures (SOI Stds), the unavoidable removal of the original landscape entry plaza as well as the lecture hall lobby and elements of the facades in this location collectively constitute alterations to character defining features. Because these character defining features are being so affected, NIST believes that the Undertaking has the potential to have an **Adverse Effect** as defined in 36 CFR 800.5(a)

We request your concurrence or non-concurrence with the assessment of **Adverse Effect** within 30 days. If you concur with the assessment NIST, in consultation with our grant federal partner at HRSA and the MSU shall prepare a Draft Memorandum of Agreement (MOA) that more specifically details the terms of the mitigation measure and the corresponding time frame for discussion with NIST, HRSA, MSU, and your office. By copy of this correspondence to Mr. Chris Wilson, we are informing the ACHP of our Adverse Effect determination and inviting them to participate in the forthcoming MOA

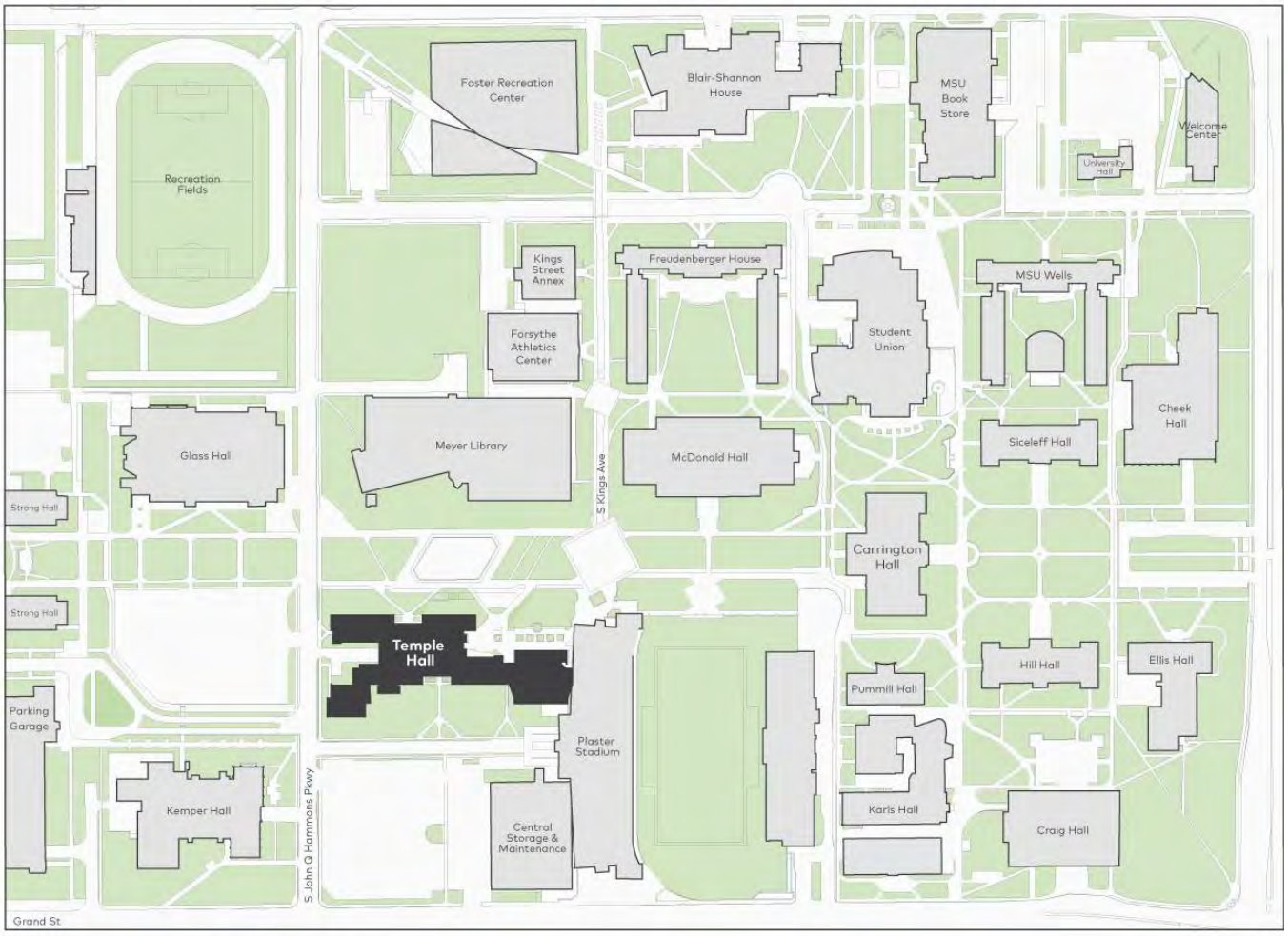
If you have any questions or would like to discuss the project further, please contact me at phillip.neuberg@nist.gov or Mr. Robert Slocum at Robert.slocum@nist.gov

Sincerely,

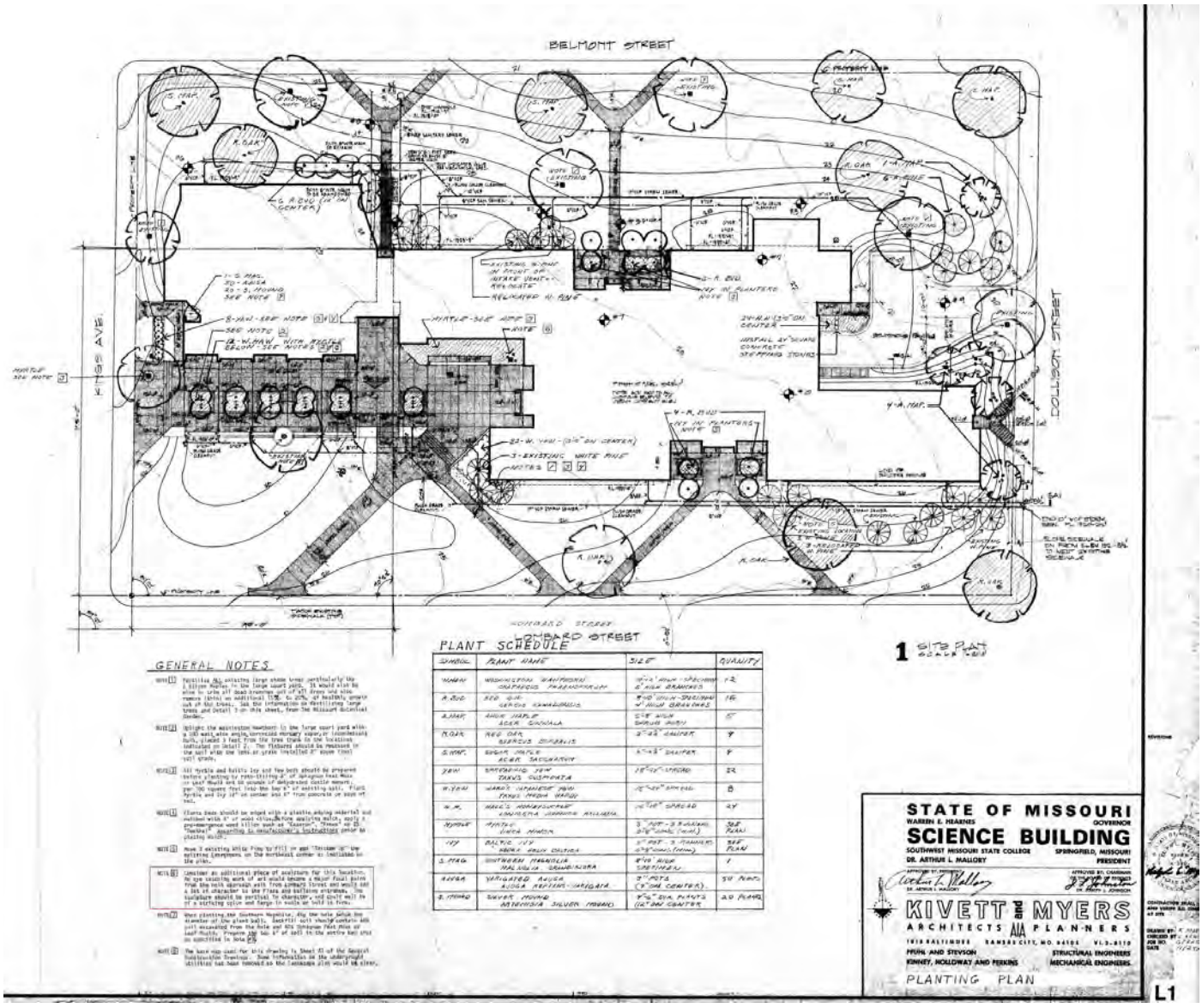
Phillip W. Neuberg, FAIA
Federal Historic Preservation Officer
Office of Facilities and Property Management

Enclosures: 1) SHPO Section 106 **Project Review Form;** 2) Campus Map showing Temple Hall, 3) Site Plan from original drawing, 4) photos of the existing Tempe Hall and renderings of the proposed Northeast Addition

Cc: all via email and with enclosures: Mr. Chris Wilson, Advisory Council on Historic Preservation, Robert Slocum, NIST; Keith Kizzie, and Julia Bryan, HRSA; Mark White, Laura Jean Derrick, and Matt Morris all of MSU; Mike Sutherland, MO DNR



Campus Map showing Temple Hall in Context



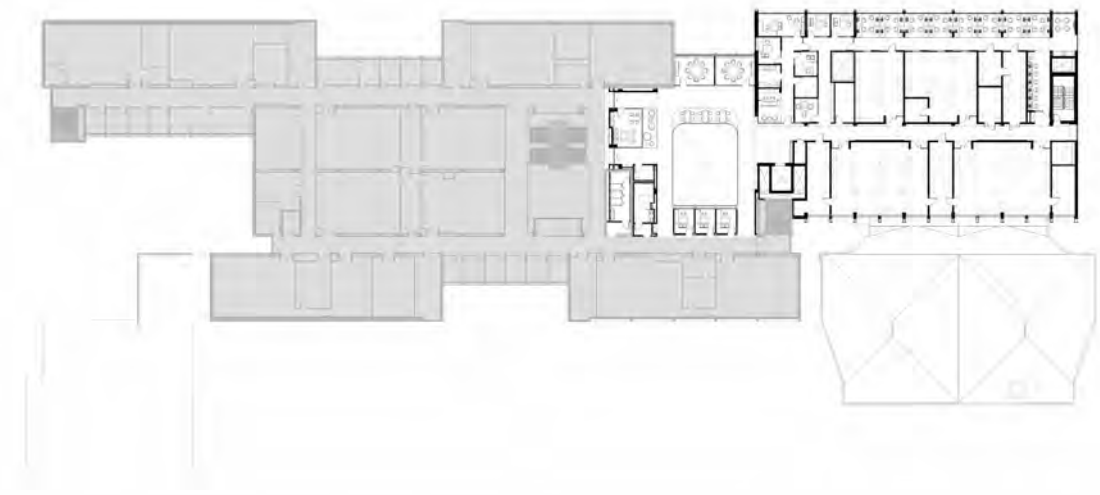
Site Plan from Original Drawings

Existing condition from Northeast

Existing condition from Northwest

Rendering of Proposed Addition from Northeast

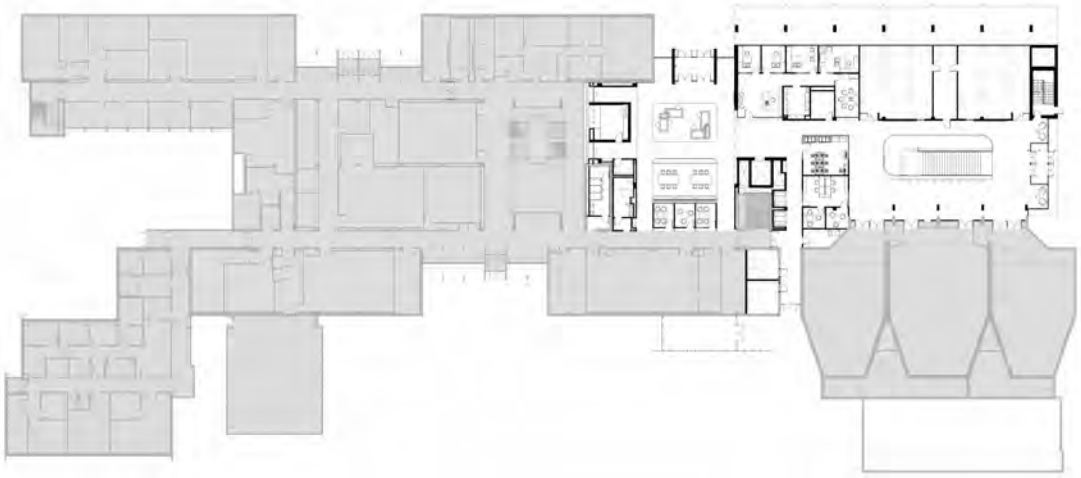
Rendering of Proposed Addition from Northwest



Missouri State University Temple Hall Addition & Renovation Phase One

Overall Plan | DD-002

bnim 2460 East Pershing Road Suite 100 Kansas City MO 64108



Missouri State University Temple Hall Addition & Renovation Phase One

Overall Plan | DD-001

bnim 2460 East Pershing Road Suite 100 Kansas City MO 64108

Existing view from northeast

Existing view from north

Appendix C – SHPO letter to NIST
7 February 2023

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Michael L. Parson
Governor

Dru Buntin
Director

February 7, 2023

Phillip Neuberg
Federal Historic Preservation Officer
National Institute of Standards and Technology

Re: **SHPO Project Number: 008-GR-23** – Addition and Renovation, Temple Hall- Missouri State University – 910 South John Q. Hammons Parkway, Springfield, Greene County, Missouri (NIST, HRSA)

Dear Phillip Neuberg:

Thank you for submitting information to the State Historic Preservation Office (SHPO) regarding the above-referenced project for review pursuant to Section 106 of the National Historic Preservation Act, P.L. 89-665, as amended (NHPA), and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which require identification and evaluation of historic properties.

We have reviewed the information regarding the above-referenced project and have included our comments on the following page(s). Please retain this documentation as evidence of consultation with the Missouri SHPO under Section 106 of the NHPA. SHPO concurrence does not complete the Section 106 process as federal agencies will need to conduct consultation with all interested parties. **Please be advised that, if the current project area or scope of work changes, such as a borrow area being added, or cultural materials are encountered during construction, appropriate information must be provided to this office for further review and comment.**

If you have questions please contact the SHPO at (573) 751-7858 or call/email Amy Rubingh, (573) 751-4589, amy.rubingh@dnr.mo.gov. If additional information is required please submit the information via email to MOSection106@dnr.mo.gov.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

Brian Stith
Deputy Director Division of State Parks and
Deputy Missouri State Historic Preservation Officer

CC: Robert Slocum, NIST
Keith Kizzie, HRSA
Julia Bryan, HRSA
Mark White, MSU
Laura Jean Derrick, MSU
Chris Wilson, ACHP
Mike Sutherland, MO DNR
Matt Morris, MSU

SHPO Project Number: 008-GR-23 – Addition and Renovation, Temple Hall- Missouri State University – 910 South John Q. Hammons Parkway, Springfield, Greene County, Missouri (NIST, HRSA)

COMMENTS:

We have reviewed the information provided concerning the above referenced project and concur with your determination that Temple Hall, at 910 South John Q. Hammons Parkway, Springfield, MO 65897, should be considered eligible for inclusion in the National Register of Historic Places, and the proposed project will have an **adverse effect** on the historic property. A Memorandum of Agreement (MOA) that outlines the steps needed to mitigate the adverse effect for this project will need to be drafted. Final stipulations in the MOA should be determined in consultation with the NIST, HRSA, MSU, our office, the Advisory Council (if participating) and any other interested parties.

The National Institute of Standards and Technology should forward the necessary adequate documentation as described to the Executive Director, Advisory Council on Historic Preservation, the Pension Building, 401 F Street NW, Suite 308, Washington, DC 20001-2637. Pending receipt of the Council's decision on whether it will participate in consultation, no action shall be taken which would foreclose Council consideration of alternatives to avoid or satisfactorily mitigate any adverse effect on the property in question. Please be sure to copy us on any correspondence to the ACHP.

SHPO Reviewer: Amy Rubingh, (573) 751-4589, amy.rubingh@dnr.mo.gov

Appendix D – Correspondence from ACHP
9 March 2023

From:	Neuberg, Phillip W. (Fed)
To:	Rachel Consolloy; Derrick, Laura J
Cc:	Slocum, Robert J. Mr. (Fed)
Subject:	FW: [External] FW: Section 106 - Final MOA Draft
Date:	Thursday, March 9, 2023 9:54:46 AM
Attachments:	image001.png

Rachel,
Please take a copy of the email below as the insert for Appendix D on the MOA

Phillip W. Neuberg, FAIA
Architect & Federal Preservation Officer
301-975-6940 desk
202-309-4287 cell
Phillip.neuberg@nist.gov

NIST OFFICE OF FACILITIES & PROPERTY MANAGEMENT

From: Christopher Wilson <cwilson@achp.gov>
Sent: Thursday, March 9, 2023 10:51 AM
To: Neuberg, Phillip W. (Fed) <phillip.neuberg@nist.gov>
Subject: Re: [External] FW: Section 106 - Final MOA Draft

Phillip:

The ACHP will not be participating in this Temple Hall, Missouri MOA Section 106 case as it does not appear to trigger our appendix A criteria in our regulations.

If you need any further clarification, please contact me directly.

Thank you,

Chris Wilson
NIST Case Manager
Advisory Council on Historic Preservation

Appendix E – Correspondence from Landmarks Board
2 March 2023

From: Sparlin, Michael
To: Rachel Consolloy; Phillip.neuberg@nist.gov
Subject: RE: Consulting Parties Notification Letter
Date: Thursday, March 2, 2023 2:11:00 PM
Attachments: image001.png
image002.png

Hi Phillip and Rachel,

Thank you for sending this. I'd like to attend the meeting as the staff liaison for the Landmarks Board. I'll forward your letter to the Board and reply with any members that would like to attend.

I have a personal connection to Temple Hall, as I spent many hours at Temple earning my degree!

Michael Sparlin, Senior City Planner
City of Springfield, Missouri
Planning & Development Department
Development Review Office
417.864.1091

From: Rachel Consolloy <rachel@rosinpreservation.com>
Sent: Wednesday, March 1, 2023 5:38 PM
To: Sparlin, Michael <msparlin@springfieldmo.gov>
Cc: Slocum, Robert J. (Fed) <robert.slocum@nist.gov>; Blackmon, James Michael (Fed) <mike.blackmon@nist.gov>; Kizzie, Keith (HRSA) <KKizzie@hrsa.gov>; Bryan, Julia (HRSA) <JBryan@hrsa.gov>; Rubingh, Amy <amy.rubingh@dnr.mo.gov>; Stith, Brian <brian.stith@dnr.mo.gov>; Prawl, Toni <toni.prawl@dnr.mo.gov>; Hackworth, Michel K <MHackworth@MissouriState.edu>; Wheeler, Mark S <MarkWheeler@MissouriState.edu>; Morris, Matthew D <MattMorris@MissouriState.edu>; Derrick, Laura J <ljderrick@missouristate.edu>; Alyssa Parsons <aparsons@bnim.com>; Josh Harrold <jharrold@bnim.com>; Laura Lesniewski <LLesniewski@bnim.com>
Subject: Consulting Parties Notification Letter

Dear Mr. Sparlin,

As the federal preservation officer of the National Institute of Standards and Technology, I have delegated Ms. Rachel Consolloy to send this email on my behalf because of your interest in historic preservation.

Please find attached an invitation to participate in the development of the above referenced Section 106 Consultation for Temple Hall located at the Missouri State University in Springfield, MO. The attached letter includes details of the consultation, particular determination of effects for the

proposed Undertaking, proposed Memorandum of Agreement, and Consulting Parties Meeting scheduled for later this month. Should you have any questions or require further information, email me at the address shown below.

Sincerely,

Phillip W. Neuberg, FAIA
Architect & Federal Preservation Officer
301-975-6940 desk
202-309-4287 cell
Phillip.neuberg@nist.gov

NIST OFFICE OF FACILITIES & PROPERTY MANAGEMENT

Rachel Consolloy

1712 Holmes Street
Kansas City, Missouri 64108
816.472.4950 | D: 816.800.0473
rosinpreservation.com

Appendix F – Correspondence from Tribes

From: Rachel Consolloy
To: Rachel Consolloy
Subject: FW: Dleaware Tribe Comments
Date: Friday, March 31, 2023 4:35:10 PM
Attachments: image001.png
image713464.png

Rachel Consolloy

1712 Holmes Street
Kansas City, Missouri 64108
816.472.4950 | D: 816.800.0473
rosinpreservation.com

From: Susan Bachor <sbachor@DelawareTribe.onmicrosoft.com>
Sent: Friday, March 31, 2023 12:57 PM
To: Neuberg, Phillip W. (Fed) <phillip.neuberg@nist.gov>; Derrick, Laura J <LJDerrick@MissouriState.edu>; Kizzie, Keith (HRSA) <KKizzie@hrsa.gov>; Rubingh, Amy <Amy.Rubingh@dnr.mo.gov>; Slocum, Robert J. Mr. (Fed) <robert.slocum@nist.gov>; Bush, Crystal (HRSA) <CBush@hrsa.gov>
Cc: Hackworth, Michel K <MHackworth@MissouriState.edu>; Jeremy Johnson <jeremyjohnson@delawaretribe.org>
Subject: Re: Dleaware Tribe Comments

. The history shall present ~~themes~~ ~~such as~~ ~~stories~~ the perspectives of the ~~Native~~ American Indian peoples who frequented the area prior to the State, City and University's founding,

Some further edits.

Susan Bachor, M.A.
Deputy THPO & Archaeologist
Delaware Tribe Historic Preservation
126 University Circle
Stroud Hall, Rm. 437
East Stroudsburg PA 18301
cell-1.539.529.1671
sbachor@delawaretribe.org- electronic submissions preferred
Please call for appointment.

From: Neuberg, Phillip W. (Fed) <phillip.neuberg@nist.gov>
Sent: Friday, March 31, 2023 1:19 PM
To: Derrick, Laura J <LJDerrick@MissouriState.edu>; Susan Bachor <sbachor@DelawareTribe.onmicrosoft.com>; Kizzie, Keith (HRSA) <KKizzie@hrsa.gov>; Rubingh, Amy <Amy.Rubingh@dnr.mo.gov>; Slocum, Robert J. Mr. (Fed) <robert.slocum@nist.gov>; Bush, Crystal (HRSA) <CBush@hrsa.gov>
Cc: Hackworth, Michel K <MHackworth@MissouriState.edu>
Subject: RE: Dleaware Tribe Comments

Please note I have slightly revised the wording, while keeping the intent of Susan's request -- as shown below

> "In consultation with MSU, its federal partners, and SHPO, the Consultant shall develop an interpretive history display regarding the history of the historic property that will be installed in the property by MSU once renovations are complete. The history shall present themes such as stories of the Native American peoples who frequented the area prior to the State, City and University's founding, the development and history of the building and its connection to the university and the brutalist architectural movement; and describe what . . ."

Phillip W. Neuberg, FAIA
Architect & Federal Preservation Officer
301-975-6940 desk
202-309-4287 cell
Phillip.neuberg@nist.gov

NIST | OFFICE OF FACILITIES & PROPERTY MANAGEMENT

From: Derrick, Laura J <LJDerrick@MissouriState.edu>
Sent: Friday, March 31, 2023 11:43 AM
To: Neuberg, Phillip W. (Fed) <phillip.neuberg@nist.gov>; Susan Bachor <sbachor@DelawareTribe.onmicrosoft.com>; Kizzie, Keith (HRSA) <KKizzie@hrsa.gov>; Rubingh, Amy <Amy.Rubingh@dnr.mo.gov>; Slocum, Robert J. Mr. (Fed) <robert.slocum@nist.gov>; Bush, Crystal (HRSA) <CBush@hrsa.gov>
Cc: Hackworth, Michel K <MHackworth@MissouriState.edu>
Subject: RE: Dleaware Tribe Comments

Susan,
I agree with Phillip, this is a great suggestion!

Below is the suggested language we will include in the MOA.
Please let us know if this is adequate.

Also, would your or someone from the Delaware Tribe be interested in working with us on this piece of the interpretive display?

Thank you!
Laura

> In consultation with MSU, its federal partners, and SHPO, the Consultant shall develop an interpretive history display regarding the history of the historic property that will be installed in the property by MSU once renovations are complete. The history shall present themes such as the stories of the Native American peoples who frequented the area prior to their 1830 removal, subsequent development and history of the building and its connection to the university and the brutalist architectural movement; and describe what events occurred through photographs and other visual interpretation. The display shall include, but not be limited to, text, images, and historic photographs. MSU shall submit a draft of the proposed display to SHPO for review and comment prior to its instillation in Temple Hall. The SHPO shall have thirty (30) days from receipt to review and comment on the draft display.

Laura Jean Derrick, csi, aia
Project Manager - Architect
Planning, Design & Construction
Missouri State University
901 S. National Ave.
Springfield, MO 65897
Phone: 417-836-7625 | Fax: 417-836-6884
ljderrick@missouristate.edu | www.missouristate.edu
Missouri State University | MAKE YOUR MISSOURI STATEMENT.

From: Neuberg, Phillip W. (Fed) <phillip.neuberg@nist.gov>
Sent: Thursday, March 30, 2023 2:48 PM
To: Susan Bachor <sbachor@DelawareTribe.onmicrosoft.com>; Derrick, Laura J <LJDerrick@MissouriState.edu>; Kizzie, Keith (HRSA) <KKizzie@hrsa.gov>; Rubingh, Amy <Amy.Rubingh@dnr.mo.gov>; Slocum, Robert J. Mr. (Fed) <robert.slocum@nist.gov>; Bush, Crystal (HRSA) <CBush@hrsa.gov>
Subject: Re: Dleaware Tribe Comments

That is an excellent suggestion. Let me pass that on to the university and others involved in the MOA development. There could be an acknowledgement of the region's original inhabitants and/or peoples who frequented the area where Temple Hall now sits. Thank you so much Susan.

Phil Neuberg

From: Susan Bachor <sbachor@DelawareTribe.onmicrosoft.com>
Sent: Thursday, March 30, 2023 2:30:27 PM
To: Neuberg, Phillip W. (Fed) <phillip.neuberg@nist.gov>
Subject: Dleaware Tribe Comments

Hè (hi) Phillip.
In the interpretation of the new space and its history is their a thought to the tribal nations that were here before?

Susan Bachor, M.A.
Deputy THPO & Archaeologist
Delaware Tribe Historic Preservation
126 University Circle
Stroud Hall, Rm. 437
East Stroudsburg PA 18301
cell-1.539.529.1671
sbachor@delawaretribe.org- electronic submissions preferred
Please call for appointment.

Kickapoo Tribe of Oklahoma

P.O. Box 70
McLoud, Oklahoma 74851

Administration Department
Phone: 405-964-7053 Fax: 405-964-7065

March 31, 2023

Phillip W. Neuburg
Architect and Federal Preservation Officer
Phillip W. Neuburg <Phillip.neuberg@nist.gov>

RE: Section 106- Temple Hall- Missouri State University 910 South John Q. Hammons Parkway Springfield, Greene County, Missouri

To Whom It May Concern,

Thank you for consulting with the Kickapoo Tribe of Oklahoma regarding the above referenced project. Currently, the Kickapoo Tribe of Oklahoma has no objection to the construction addition of Temple Hall at Missouri State University 910 South John Q. Hammons Parkway Springfield, Greene County, Missouri. However, in the event burial remains and/or artifacts are discovered during the development or construction process, the Kickapoo Tribe of Oklahoma would ask for immediate notification of such findings.

Should I be of any further assistance, please contact me at (405) 964-4227, ext.2306.

Sincerely,

Susan Tiger

Susan Tiger, Self-Governance, Transportation, NAGPRA Admin. Assistant
Kickapoo Tribe of Oklahoma
A: 105365 OK 102
P: (405) 964-4227 ex. 2306 **M:** (405) 434-2866
E: susan.tiger@okkt.net

cc: NAGPRA Consulting File