



Draft Environmental Assessment

# University of Iowa Visual Arts Building

Iowa City, Iowa

FEMA DR-1763-IA

*November 11, 2011*

**Federal Emergency Management Agency**  
**Department of Homeland Security**  
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**Abbreviations and Acronyms**

ABW	Art Building West
AADT	Average Annual Daily Traffic
BMP	Best Management Practices
CFR	Code of Federal Regulations
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEQ	Council on Environmental Quality
ESA	Endangered Species Act
EA	Environmental Assessment
EO	Executive Order
FPPA	Farmland Protection Policy Act
FONSI	Finding of No Significant Impact
FIRM	Flood Insurance Rate Maps
IDNR	Iowa Department of Natural Resources
IDOT	Iowa Department of Transportation
JCCOG	Johnson County Council of Governments
LEED	Leadership in Energy and Environmental Design
MOA	Memorandum of Agreement
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
RCRA	Resource Conservation and Recovery Act
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
HUD	U.S. Department of Housing and Urban Development
USFWS	U.S. Fish and Wildlife Service
UIHL	University of Iowa Hygienic Laboratory
VAB	Visual Arts Building

# 1. INTRODUCTION

The University of Iowa (UI) is the largest university in Iowa. A member of the Big Ten conference, the University of Iowa was established by the State of Iowa in 1847 under the jurisdiction of the Iowa State Board of Regents. Located in Iowa City, Iowa, the University has facilities along both sides of the Iowa River in central Johnson County, Iowa.

Beginning on June 9th, 2008 facilities located near the Iowa River including the art building experienced extensive damage from the flooding of the Iowa River and its tributaries which flooded portions of Iowa City and the surrounding area. On May 27, 2008, President Bush declared a major disaster in the State of Iowa (DR-1763-IA) pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, 42 U.S.C. Section 5121-5206. The incident period began on May 25, 2008 and closed August 13, 2008.

The current flood damaged location of the art building is east of North Riverside Drive, on the west side of the Iowa River in north central Iowa City, Iowa. The art building directly served the students and faculty of the University of Iowa. It housed art studios for ceramics, sculpture, metalsmithing, printmaking, photography, 3D design, painting-drawing, and intermedia studios. As a teaching and studio facility, it housed the School of Art and Art History whose mission is the blending of art production with the historical study of art as a discipline.

In the spring of 2009, FEMA determined that the extent of flood damage would qualify the art building for replacement which the UI chose to pursue. A new art building will serve a vital function in advancement of art education and opportunity to practice for students interested in art and arts-related careers. The facility will serve the population of the State of Iowa by allowing the quality instructors and students of the University of Iowa to create and maintain a vibrant art education program to the benefit of the State and society as a whole.

The National Environmental Policy Act (NEPA) requires that Federal agencies evaluate the environmental effects of their proposed and alternative actions before deciding to fund an action. The President's Council on Environmental Quality (CEQ) has developed a series of regulations for implementing the NEPA. These regulations are included in Title 40 of the Code of Federal Regulations (CFR), Parts 1500-1508. They require the preparation of an Environmental Assessment (EA) that includes an evaluation of alternative means of addressing the problem and a discussion of the potential environmental impacts of a proposed Federal action. An EA provides the evidence and analysis to determine whether the proposed Federal action will have a significant adverse effect on human health and the environment. An EA, as it relates to the FEMA program, must be prepared according to the requirements of the Stafford Act and 44 CFR, Part 10. This section of the Federal Code requires that FEMA take environmental considerations into account when authorizing funding or approving actions. This EA was conducted in accordance with both CEQ and FEMA regulations for NEPA and will address the environmental issues associated with the FEMA grant funding as applied towards construction of a new art building at the proposed site (Appendix A, Figures 1 and 2). The UI hired Seneca Companies to prepare a draft of this EA which was then submitted to FEMA for final draft and posting for public comment.

Executive Order (EO) 11988 (Floodplain Management) requires that Federal Agencies assume a leadership role in avoiding direct or indirect support of development within the 100-year floodplain whenever there is a

practical alternative. At present, the damaged facility is located within the 100-year floodplain and subject to repetitive flooding (Appendix A, Figure 3). Rather than repair the facility at its current location, FEMA determined that the extent of damage would qualify the art building for replacement reimbursement. UI conducted a thorough review of the practicable alternatives for siting the new art building and chose a location to the northwest of the flood-damaged structure on a site above the 500-year floodplain (see 5.10.2 Floodplain), currently addressed as 109 River Drive (Appendix A, Figure 4). A primary goal in choosing a location for the new facility is to maintain a proximity to Art Building West (ABW) (Appendix A, Figure 2). ABW is used by students and faculty who traveled frequently between it and the flood-damaged art building. ABW is currently being restored from flood damage and mitigated to prevent future damage.

## 2. PURPOSE AND NEED

Pursuant to Section 406 of the Robert T. Stafford Disaster and Emergency Assistance Act of 1988, as amended, the University of Iowa has requested funding through FEMA Public Assistance Program. FEMA's Public Assistance Program provides supplemental Federal disaster grant assistance for the repair, replacement, or restoration of disaster damaged, publicly owned facilities.

The purpose of this project is to assist the citizens of Iowa in their recovery from the natural disaster by using the FEMA Public Assistance Program to contribute funding towards the construction of a new art building. The proposed site of the new visual arts building is located northwest of the existing recovered ABW. The need for the project is to protect the facility and function of art building from future flooding by relocating outside of the 500-year floodplain in response to a devastating flood that struck Iowa City beginning on June 9th, 2008.

Since the June 2008 floods, the functional use of the existing art building has been terminated and students, classes and studios have been temporarily relocated to a former retail store several miles off campus. In order to continue to meet the needs of the University and its students, to the benefit of all Iowans, the UI intends to relocate the art building as the current structures were extensively damaged by flood waters. The Visual Arts Building (VAB) provides essential services to the State of Iowa including the ability to offer art education in a quality, favorable environment. If the art building is not relocated and rebuilt, UI's ability to continue offering quality art education would be compromised.

### **3. ALTERNATIVES ANALYSIS**

NEPA requires the investigation and evaluation of reasonable project alternatives as part of the project environmental review process. EO 11988 requires the investigation of practicable alternatives prior to Federal agencies taking actions that provide direct or indirect support of floodplain development. Two alternatives are addressed in this EA: the No Action Alternative, where no FEMA grant funding is applied towards construction of a new art building, and the Proposed Action Alternative, where FEMA grant funding is applied towards construction of a new visual arts building in Iowa City at a location outside the 500-year floodplain.

FEMA determined that because the flood-damaged art building is located in the 100-year floodplain and was extensively damaged, the facility was eligible for relocation which the UI then requested. The decision to proceed with the 109 River Street site was based on a thorough and comprehensive evaluation process including preparation of a relocation study, an estimation of construction cost, stakeholder meetings with members of the School of Art and Art History and a public forum in the summer of 2009. It was determined that easy and quick pedestrian access from the existing ABW with a new facility is essential in order to maintain the principal of integration of studio art and art history in a single academic unit. Another positive reason toward selection of the 109 River Street site was the need for the replacement site to possess sufficient outdoor space to accommodate the needs of the sculpture and ceramic programs. By locating the new facility as proposed, the relocation site is on property owned by UI of a suitable size and shape to accommodate the new structure, and is reasonably adjacent to all necessary University utilities.

#### **3.1 No Action**

Inclusion of a No Action Alternative in the environmental analysis and documentation is required under NEPA. The No Action Alternative is defined as maintaining the status quo with no FEMA funding for an alternative action.

The No Action Alternative is used to evaluate the effects of not providing eligible assistance for the project, thus providing a benchmark against which “action alternatives” may be evaluated. For the purposes of this alternative, it is assumed that the University of Iowa would continue to use the temporary location and not be able to construct a new art building and provide the facilities to house the necessary services within a new facility. Therefore, no FEMA grant funding would be applied towards construction of a new art building and the art program would experience significant long-term costs of program dispersal, operational inefficiency, scheduling difficulty, loss of educational opportunities and unnecessary increased transportation costs that would burden the facility and the School of Art and Art History for the indeterminate future.

#### **3.2 Proposed Action**

This alternative provides FEMA grant funding towards construction of a new art building at the proposed site located at 109 River Street. This alternative was preferred because it best meets the purpose and need by providing the students with easy accessibility and maintains a close proximity to other art facilities and the rest of the campus; not all students taking art classes are art majors. A cost-benefit analysis conducted in 2010 concluded that the land-use benefits represent a critical beneficial result of locating the new art building at the

109 River Street site. The University of Iowa has contracted the design work for the proposed alternative to Berkebile Nelson Immenschuh McDowell. Photos of the proposed construction site are presented in Appendix B.

The project involves demolition of the existing 109 River Street structure and construction of an approximate 126,000 square-foot VAB. The flood-damaged art building encompassed approximately 95,000 square feet of administrative, exhibition and instructional space. This space, modified to meet current codes and UI Design Standards and Procedures, expands to approximately 116,000 square feet. Adding in the square footage lost by demolition of the existing structure at 109 River, the total approximates 126,000 square feet. After demolition of the existing structure, minor excavation and grading will be required in order to bring the site to construction grade. An adjacent open lot to the southeast currently occupied by lawn and sparse trees is scheduled for use as a construction staging area that may cause minor ground surface disruption. Utilities hookup work will also be necessary in the staging area with excavation of utility trenches 6 to 8 feet deep. The construction of a geothermal heating/cooling system which would involve the drilling of water withdrawal and injection wells in the staging area may also take place.

The proposed VAB site is designated by the National Flood Insurance Program (NFIP) as being located in an area determined to be above the 100-year floodplain and thus consistent with EO 11988. In addition, the proposed action provides a location outside of the 500-year floodplain which is consistent with the City of Iowa City's Floodplain Ordinance. Site development will be compatible with the surrounding neighborhood.

### **3.3 Alternatives Considered and Dismissed**

A number of alternatives were evaluated during the development of the proposed project. Alternative sites considered are located on both the east and west sides of the Iowa River. Sites considered on the east side of the Iowa River include the former water plant site behind Iowa Advanced Technology Laboratory on Madison Street, in the Seashore Hall block on Iowa Avenue, and behind the Lindquist Center on South Capitol Street. None of these sites are suitable because either they are exposed to 500-year flood inundation or are too far from ABW. The Seashore block site and the site near the Lindquist center are scheduled in the University Master Plan for other uses, in line with uses of adjacent sites. A site considered on the west side is an open area between Park Road and Grove Street west of Riverside Drive. This site was rejected because it is too distant from ABW and the undergraduate core area of the University, that being the Pentacrest/Old Capitol and immediately surrounding area.

## 4. SUMMARY OF IMPACTS AND MITIGATION

Two alternatives were evaluated in this EA:

- No Action Alternative
- Proposed Action

Table 4-1 summarizes the potential environmental impacts expected with each of the two alternatives. Additional information is located in Section 5.

As shown in table 4-1, the No Action Alternative could result in no environmental impacts on the environment.

As shown in table 4-1, the selection of Proposed Action could result in minor environmental impacts from the possible temporary increase in the production of fugitive dust and noise and sporadic, temporary impediment of vehicular traffic during demolition and construction.

*Table 4-1: Summary of Impact and Mitigation*

<b>Environmental Resource</b>	<b>No Action</b>	<b>Proposed Action</b>
Air Quality	Students cannot walk from the main campus to the temporary location at Studio Arts. Transportation by bus or auto affects air quality due to emissions.	No significant impact. Fugitive dust would result from demolition, expected to last 4 weeks, and construction activities, expected to last 33 months; Best management practices would be implemented.
Biological Resources	No impact	No impact. Rare species are not present in the project area.
Executive Order Wetlands	No impact	No impact. Wetlands are not present in the proposed construction area. A nearby wetland has been identified.
Executive Order 11988/Floodplain Mgmt	No impact	No impact. The proposed new site is located outside the 500-year floodplain and thus consistent with EO 11988 and the City's Floodplain Ordinance. The project will have no long-term adverse effects to the floodplain.
Threatened and Endangered Species	No Impact	No impact. Threatened or endangered species are not present in the project area.
Cultural Resources	Historic property, 109 River Street would not be demolished	Adverse impact. Demolition of 109 River Street would constitute an adverse effect. FEMA is currently in the process of developing a Memorandum of Agreement with its historic preservation partners to mitigate the loss of the historic property.
Geology and Soils	No impact	No significant impact. Construction activities would clear some minor existing vegetation and expose soil in the proposed construction area.

Land Use and Planning	No impact	No impact. Land use does not change. The land is currently Zoned RNS20, and may be rezoned to P2.
Hazardous Substances	No impact	No known or foreseeable impact. In the event that soil contamination is discovered during construction activities, the Iowa Department of Natural Resources (IDNR) should be contacted. Work within the discovered contaminated area should not resume until IDNR personnel indicates no further assessment is needed.
Noise	No impact	No significant impact. Construction activities may increase the noise levels in the immediate area of the construction project temporarily. Activities will take place during daylight hours and weekdays.
Socioeconomic/Executive Order 12898, Environmental Justice	No impact	No impact. Implementation of this alternative would have little likelihood of having disproportionate impacts on any low income or minority groups.
Transportation	No impact	No significant impact. Flagmen and possibly escort vehicles would be utilized for construction purposes which may temporarily disrupt traffic.
Water Quality/Water Resources	No impact	No impact. Contractor to implement construction best management practices. Install silt fences/straw bales to reduce soil erosion and sedimentation. Contractor to implement requirements of NPDES storm water discharge permit.
Cumulative Impacts	No Impact	No significant impact. The development of the site into the new VAB would not pose a significant cumulative impact from the Proposed Action Alternative or impact Iowa City and the surrounding area. Isolated negative impacts will have mitigation measures in place to minimize or resolve their effects.

## 5. AFFECTED ENVIRONMENT AND IMPACTS

Chapter 5 describes the existing environmental conditions that may be affected by the proposed FEMA grant funding being applied towards construction of a new VAB. The environmental impacts of the No Action Alternative are also analyzed.

This chapter also describes the potential environmental consequences of the proposed alternative by comparing them with the potentially affected environmental components. The proposed activity was also evaluated against existing environmental documentation on current and planned actions and information on anticipated future projects to determine the potential for cumulative impacts. The potential for significant environmental consequences was evaluated utilizing the context and intensity considerations as defined in CEQ regulations for implementing the procedural provisions of NEPA (40 CFR 1508.27).

### 5.1 Air Quality

The 1990 Clean Air Act, its amendments, and NEPA require that air quality impacts be addressed in the preparation of environmental assessments. The U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) for six “criteria” pollutants: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM), sulfur dioxide (SO<sub>2</sub>) and lead (Pb). These standards define the allowable concentrations that may be reached, but not exceeded, in a given time period to protect human health (primary standard) and welfare (secondary standard) with a reasonable margin of safety.

Primary and secondary standards for NAAQS have been established for most of the criteria pollutants. The EPA is authorized to designate those locations that have not met the NAAQS as non-attainment and to classify these non-attainment areas according to their degree of severity. To be classified “non-attainment” means one or more of the NAAQS for the six criteria pollutants is exceeded over a given period of time.

Each year, states are required to submit an annual monitoring network plan to EPA. The network plans provide for the creation and maintenance of monitoring stations, in accordance with EPA monitoring requirements specified in 40 CFR (Code of Federal Regulations) Part 58. The state of Iowa’s most recent Monitoring Network Plan was approved by EPA Region 7 in December 2010.

The Ambient Air Quality Division of the University of Iowa Hygienic Laboratory (UIHL) works in conjunction with the IDNR and the EPA to preserve the air quality of the state. The UIHL maintains a network of instruments and devices located throughout the state to monitor ambient air. A map of the air monitoring network and historical air quality monitoring data maintained by UIHL can be found at the following web address: <http://www.uhl.uiowa.edu/services/ambient/>. The nearest Air Quality Monitoring System location is located at Hoover School, 2200 East Court, in Iowa City.

#### 5.1.1 No Action

The No Action Alternative would not directly affect air quality. No demolition or construction activities would occur with the selection of the No Action Alternative. However the increased bus and vehicle traffic required for students accessing the dispersed functions of the VAB and the School of Art would marginally increase air-borne pollutants such as CO and PM. Such increases in pollutants are not expected to exceed federal or state air quality attainment levels.

## 5.1.2 Proposed Action

Under this alternative, the Proposed Action would require the demolition of the existing 109 River Street structure and excavation of soil for the construction of the VAB. Short-term emissions of criteria pollutants may occur during the demolition and construction phase. Construction equipment and personal vehicles of construction personnel would generate exhaust emissions. The operation of motor vehicles on unpaved surfaces and the use of earthmoving equipment may also generate particulate matter during dry periods. The moving and handling of soil during construction would increase the potential for emissions of fugitive dust; however, any deterioration of air quality would be a localized, short-term condition that would be discontinued when the project has been completed and disturbed soils have been stabilized or paved. The Proposed Action would require approximately 4 weeks of demolition and 33 months of construction. Heavy equipment including backhoes will likely be used for excavating the site. Demolition and construction activities would be required to minimize fugitive dust emissions through watering or other measures to reduce the entrainment of particulate matter. Increases in ambient concentrations of the criteria pollutants resulting from heavy equipment and additional traffic would be minimal, and federal or state air quality attainment levels would not be exceeded. The Proposed Action is expected to have no long-term adverse impacts on the air quality of the area.

### Mitigation

- Construction activities would be required to minimize fugitive dust emissions through watering, controlling entrainment of dust by vehicles, and/or other measures to reduce the disturbance of particulate matter.
- During site preparation and construction, the contractor would:
  - Minimize land disturbance;
  - Suppress dust on traveled paths that are not paved through wetting, use of watering trucks, chemical dust suppressants, or other reasonable precautions to prevent dust from entering ambient air;
  - Cover trucks when hauling soil;
  - Minimize soil track-out by washing or cleaning truck wheels before leaving the construction site;
  - Stabilize the surface of soil piles; and
  - Create wind breaks.
- During site restoration, the contractor would:
  - Revegetate any disturbed land not used with native species in accordance with Executive Order (EO) 13112
  - Remove unused material, and
  - Remove soil piles via covered trucks.

Operation of the proposed alternative will decrease the total emission of criteria pollutants in the long-term because modern energy-saving design and materials proposed for construction, not found in the current flood-damaged structure, will be utilized. More efficient use of energy for heating and cooling will require less demand for energy produced by the consumption of fossil fuels or other carbon-based energy sources.

LEED, Leadership in Energy and Environmental Design, is an internationally recognized green building certification system developed by the U.S. Green Building Council. LEED promotes sustainable building and development practices through a rating system. LEED rates building design on a 100 point scale: 40+ certified,

50+ silver, 60+ gold and 80+ platinum. The new VAB is designed to qualify at a minimum for a LEED rating of gold.

Also under this alternative, vehicle emissions will be reduced from current levels because travel to the temporary location currently in use will no longer be necessary. The temporary increase in vehicular emissions since the 2008 disaster will be eliminated.

## **5.2 Biological Resources**

Vegetation, wildlife, and the habitats in which they occur are collectively referred to as biological resources. Biological resources present at the Proposed Action construction site are detailed in a report produced by Graham Environmental Services, Inc. (Appendix C, Section 2). The biological resources study consists of reviews of aerial images, historical land use, and rare and declining species, and a site-specific field survey that was conducted on September 8, 2011.

### **5.2.1 Protected Species and Habitat**

The Endangered Species Act (ESA) of 1973 establishes a Federal program to conserve, protect, and restore threatened or endangered plants and animals and their habitats. The ESA specifically charges Federal agencies with the responsibility of using their authority to conserve threatened or endangered species. All Federal agencies must ensure any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction of critical habitat for these species.

Existing records on rare species and significant natural communities in the vicinity of the Proposed Action site were reviewed by the Iowa Department of Natural Resources (IDNR). IDNR found no site-specific records that indicate rare species or significant natural communities would be impacted (Appendix C, Section 1). A survey for rare plant species at the Proposed Action construction site are detailed in a report produced by Graham Environmental Services, Inc. (Appendix C, Section 3). No State or Federally listed species were found at the proposed VAB site. However there are known mussel species within the channel of the Iowa River.

### **5.2.2 No Action**

The No Action Alternative would not impact vegetation or wildlife in the project area. No demolition or construction activities would occur with the selection of the No Action Alternative.

### **5.2.3 Proposed Action**

FEMA has determined from documentation review and a field visit to the project area that rare species or significant natural communities were not present in the area and would not be impacted by the project. No State or Federally listed species were found at the proposed Art School site. The site has been utilized for development since at least the mid- to late-1800s. The structure that currently occupies the site was constructed in 1929. Sediment and erosion control appropriate to the site will be required under 5.4.2 Geology, Seismicity, and Soils which is expected to prevent impacts to the species in the channel of the river which is complimented by the distance of the proposed site from the river.

## 5.3 Cultural Resources

In addition to review under NEPA, consideration of impacts to cultural resources is mandated under Section 106 of the National Historic Preservation Act (NHPA), as amended and implemented by 36 CFR Part 800. Requirements include the identification of significant cultural resources that may be impacted by the undertaking. Cultural resources are prehistoric and historic sites, structures, districts, buildings, objects, artifacts, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or other reasons.

Only those cultural resources determined to be potentially significant under NHPA are subject to protection from adverse impacts resulting from an undertaking. To be considered significant, a cultural resource must meet one or more of the criteria established by the National Park Service that would make that resource eligible for inclusion in the National Register of Historic Places (NRHP). The term “eligible for inclusion in the NRHP” includes all properties that meet the NRHP listing criteria, which are specified in the Department of Interior regulations Title 36, Part 60.4 and NRHP Bulletin 15. Sites not yet evaluated may be considered potentially eligible for inclusion in the NRHP and, as such, are afforded the same regulatory consideration as nominate properties. Whether prehistoric, historic, or traditional, significant cultural resources are referred to as “historic properties.”

For the purposes of this analysis, the term “Area of Potential Effects” (APE) as defined under cultural resources legislation, defines all cultural resources at each alternative’s site and encompasses areas requiring ground disturbance (e.g. areas of grading, cut and fill, etc) associated with the proposed development of the Art Building.

FEMA has evaluated the potential for this undertaking to affect cultural resources. On January 30, 2009 Iowa Homeland Security and Emergency Management Division (IHSEMD) surveyors completed a survey titled *Historical and Architectural Reconnaissance Survey for 2008 Flood Properties at the University of Iowa, Iowa City, Johnson County*. The Iowa State Historic Preservation Office (SHPO) concurred with the surveyor’s NRHP eligibility recommendations for the properties in a letter to IHSEMD dated March 4, 2009. The survey report was revised July 2, 2009. The SHPO confirmed the previous concurrence, and concurred with the NRHP eligibility determination for the *University of Iowa River Valley Historic District* in a letter to IHSEMD dated July 14, 2009. Based on the surveyor’s opinions of NRHP eligibility stated in the report; and in accordance with 36 CFR Part 800.4 Identification of Historic Properties; FEMA determined that the *University of Iowa River Valley Historic District* meets the criteria for listing in the NRHP under Criteria A, B and C and the SHPO concurred in a letter dated April 9, 2010.

In January 2010 Marlys Svendsen of Svendsen Tyler, Inc. completed an NRHP Multiple Property Documentation Form (MPD) for the Manville Heights Neighborhood in Iowa City. This survey was funded by a Historical Resource Development Program (HRDP) grant awarded to the City of Iowa City. The results of which were submitted to the SHPO in September 2010. Within the MPD, three NRHP eligible districts were identified: *Manville Addition Historic District, Manville Heights Historic District and West Side Fraternity Historic District*.

A former fraternity house located at 109 River Street, now functioning as a temporary facility for University of Iowa studio arts is proposed to be demolished to clear the site for the relocation of Art Building as part of the Proposed Action. This Italian Renaissance Revival structure was evaluated in the *Manville Heights*

*Neighborhood in Iowa City* MPD, and identified individually eligible for listing in the NRHP and as a contributing resource to the *West Side Fraternity Historic District*.

The proposed site for the relocation of the Art Building is west of the existing University of Iowa ABW, along the south side of River Street, just west of Riverside Drive. FEMA has considered the potential for this undertaking to affect archaeological resources, as well as the potential for the site preparation and construction of the new facility to affect historic standing structures. See Appendix A and Appendix G for preliminary site plans and elevations for the proposed facility the results of which are outlined in the sections below.

### **5.3.1 Archaeological**

#### **5.3.1.1 No Action**

The No Action Alternative would not include any construction activities for a relocation facility, therefore no ground disturbing activities would occur, and no archaeological resources would be affected with the selection of the No Action Alternative.

#### **5.3.1.2 Proposed Action**

Various sources were checked to determine if any previously identified historic properties, including archaeological sites are located within the APE of this undertaking and to determine the potential for the APE to contain previously unidentified historic properties. This review included the National Register of Historic Places (NRHP) and National Historic Landmarks Databases, the Office of the State Archaeologist's (OSA) I-Sites GIS and Database, historic maps and aerial photographs available through the Iowa Geographic Map Server at Iowa State University and the University of Iowa Libraries' Iowa Digital Library. Through this initial review, it was determined that the proposed relocation site has the potential to contain pre-historic and/or historic period archaeological deposits. FEMA requested that a Phase I Archaeological Survey of the APE be undertaken.

On July 29, 2011, the Office of the State Archaeologist (OSA) submitted a Phase I Archeological Survey to the University of Iowa. The survey identified one archaeological site based on a single positive auger test, site 13JH1404 and recommended the site ineligible for listing in the NRHP. The survey also identified areas on the eastern portion of the lot, where utility lines were anticipated to be installed, where fill material was too deep to identify deeply buried deposits, and exploratory stratigraphic testing was recommended. In consultation with the SHPO the method and extent of trenching was identified, and the OSA proceeded with the investigation. On September 8, 2011 a revised Phase I Archeological Survey was submitted to the University of Iowa, including the findings of the supplemental trenching and testing. This additional investigation confirmed the presence of buried landforms with the potential to contain intact archaeological deposits; however the auger tests did not identify any cultural materials. The OSA has recommended no further archaeological investigation for this Undertaking. FEMA has reviewed the enclosed survey and is in agreement with the findings and recommendations. FEMA has determined and the SHPO has concurred that the Proposed Action will result no effect to historic or pre-historic archaeological deposits.

The Proposed Action replaces the functions of the original Art Building facility. The abandonment of the facility facilitates demolition; therefore the proposed action as defined will result in ground disturbing activities associated with the demolition of the original facility. FEMA determined and the SHPO consulted that the site of the original Art Building was previously profoundly disturbed by the construction of the original Art Building

and therefore no archaeological survey work or monitoring is required in advance of or during demolition of the original facility.

### **5.3.2 Historic**

#### **5.3.2.1 No Action**

The No Action Alternative would result in no construction of the replacement facility. FEMA has reviewed the MPD and Iowa Site Inventory Form for 109 River Street, and determined that the *West Side Fraternity Historic District* is eligible for listing in the NRHP under Criteria A and C, and that 109 River Street is both a contributing resource to the eligible district, and individually eligible for listing in the NRHP under Criterion C. the No Action Alternative would retain the NRHP eligible building in its existing location within the NRHP eligible district.

#### **5.3.2.2 Proposed Action**

The Proposed Action will require the demolition of 109 River Street. FEMA has evaluated the loss of 109 River Street to the eligible West Side Fraternity Historic District and determined that as 109 River Street is the only contributing resource on the south side of River Street and the only Italian Renaissance Revival style property in the district, the district will be significantly impacted, however, as ten other contributing resources will remain within the district, FEMA has determined that the *West Side Fraternity Historic District* will not be compromised by the loss of this resource.

In addition to the *West Side Fraternity Historic District*, the proposed facility will be adjacent to two other potentially eligible NRHP historic districts. The relocation site for the Art Building is outside of the boundaries of the NRHP eligible *University of Iowa River Valley Historic District*, however the new facility will be adjacent to the 2006 Steven Holl designed Art Building West, a contributing resource to the eligible district. The University has contracted with Steven Holl to design this replacement facility, and the design of the building will be sympathetic to the existing Art Building West, while differentiated in design and massing. FEMA has determined that the relocation of Art Building, located adjacent to the *University of Iowa River Valley Historic District* will not adversely affect the eligible district or any adjacent *University of Iowa River Valley Historic District* contributing resources. The relocation site is also adjacent to the *Manville Heights Historic District* identified in the above referenced MPD. FEMA has reviewed the district, and, for the purposes of Section 106 review, determined that the district as presented in the MPD, with two minor modifications is eligible for listing in the NRHP. The construction of the proposed facility would be adjacent to the south end of the district at Richards Street. Construction activities will only result in tree canopy clearing on the east side of a ravine, which separates the Historic District from the proposed facility, therefore, with a buffer of trees and non-contributing resources, FEMA, has determined that the construction of the Art Building will not adversely affect the *Manville Heights Historic District*.

The Proposed Action, to relocate the function of the Art Building to the site of 109 River Street, will require the demotion of a structure eligible for listing in the NRHP both individually and contributing to the *West Side Fraternity Historic District*. The demolition of this facility means that proposed action as defined will result in adverse effects to historic properties. FEMA has initiated the process to resolve adverse effects to historic properties, resulting from the demolition of 109 River Street, by working with the SHPO, the University and all interested parties and the public to develop a Memorandum of Agreement (MOA) to stipulate measures required to minimize or mitigate the adverse effects. FEMA posted a public notice regarding this undertaking in

the Iowa City Press Citizen on August 8, 2011. FEMA presented this undertaking at the Iowa City Historic Preservation Commission Meeting on August 11, 2011 and invited interested parties and the public to participate in the development of the MOA. A thirty-day comment period was open from August 11, 2011 through September 11, 2011 for FEMA to receive comments regarding the undertaking and suggested mitigation measures to be included in the development of an MOA. FEMA has taken into consideration the comments presented by the interested parties and the public and is currently in development of an MOA. This MOA is anticipated to be executed by the end of the calendar year 2011. The resultant MOA and successful completion of the mitigation measures stipulated in the agreement is evidence of FEMA's compliance with its statutory responsibilities under section 106 of the NHPA.

The Proposed Action replaces the functions of the original Art Building facility. The original facility has been determined eligible for listing in the NRHP both individually and contributing to the *University of Iowa River Valley Historic District*. The abandonment of the facility facilitates demolition; therefore the proposed action as defined will result in adverse effects to historic properties. FEMA has initiated a separate process to resolve adverse effects associated with the demolition of the original Art Building by working with the SHPO, and all interested parties and the public to develop a MOA to stipulate measures required to minimize or mitigate the adverse effects. FEMA posted a public notice regarding this undertaking in the Iowa City Press Citizen and Cedar Rapids Gazette on October 1, 2011. FEMA presented this undertaking at public meetings held on November 1, 2011 at the Iowa City Public Library and on the University of Iowa Campus. At these meetings, FEMA invited interested parties and the public to participate in the development of the MOA. A thirty-day comment period is currently open from November 1, 2011 through December 1, 2011 for FEMA to receive comments regarding the undertaking and suggested mitigation measures to be included in the development of an MOA. Upon conclusion of the comment period, FEMA will work with all interested parties to negotiate an MOA to resolve adverse effects. This MOA is currently in development and is anticipated to be executed by the spring 2012. The resultant MOA and successful completion of the mitigation measures stipulated in the agreement is evidence of FEMA's compliance with its statutory responsibilities under section 106 of the NHPA.

## **5.4 Geology, Seismicity and Soils**

Proposed construction for the new VAB is set on the upland glacial till plain, out of the flood plain of the Iowa River. The topography of the proposed site slopes to the east and south toward the Iowa River and a small ravine. Because the site has been previously developed, the original topography of the site has been modified by cut-and-fill activities. Variable amounts of fill material ranging from 6 to possibly 12 feet have been placed in select locations to level the site, particularly along the eastern side. A short distance past the southeast side of the proposed construction site there is a distinct change in the steepening of the slope of the ground that indicates the boundary of the 500-year floodplain.

Iowa is generally located in a zone of low seismic activity. Iowa City is located in the Uniform Building Code seismic zone classification area 0. The 0 classification is the lowest classification used, meaning the probability of an earthquake that may cause damage to buildings is minimal.

Information from the U.S. Department of Agriculture Natural Resources Conservation Service shows that one (1) soil type is present on or immediately adjacent to the site. Soils found at the proposed art building project area are Fayette silt loam, 5 to 9 percent slopes and 14 to 18 percent slopes. The project is located predominantly on the Fayette silt loam, 5 to 9 percent slopes soil classification (Appendix A, Figure 5). Fayette

silt loam consists of well drained soils. Fayette silt loam has a depth to water table of more than 80 inches and is not prone to frequent flooding or ponding.

The Farmland Protection Policy Act (FPPA) was enacted in 1981 (P.L. 98-98) to minimize the unnecessary conversion of farmland to nonagricultural uses as a result of Federal actions. In addition, the act seeks to ensure that Federal programs are administered in a manner that will be compatible with State and Local policies and programs that have been developed to protect farmland. The policy of the Natural Resources Conservation Service (NRCS) is to protect significant agricultural lands from conversions that are irreversible and that result in the loss of essential food and environmental resources. The U.S. Department of Agriculture states that proposed projects on land already in urban development or water storage are not subject to FPPA provisions (U.S. Department of Agriculture, 1986). This site of the Proposed Action is currently developed, located within the urban boundaries of the City of Iowa City and surrounded by urban development; therefore, the proposed site is not subject to FPPA provisions.

#### **5.4.1 No Action**

The No Action Alternative would have no significant effect on geology or soils. This alternative would not involve any construction, improvements, or ground disturbance to the project area.

#### **5.4.2 Proposed Action**

The construction of the art building would result in temporary disturbance of surface soils in the project area. Implementation of Best Management Practices (BMPs) identified in a Stormwater Pollution Prevention Plan (SWPPP) would minimize soil erosion and loss until construction is complete and the site is permanently stabilized. Therefore, the Proposed Action would have no significant impact to geology and soils. Non-structural BMPs may utilize the minimization of disturbance, preservation of natural vegetation and revegetation of exposed slopes and soils to minimize erosion and to stabilize slopes. Structural erosion control BMPs include the placement of mulch or grass and the covering of stockpiles. Structural sediment control BMPs include silt fencing and sediment traps.

### **5.5 Land Use and Planning**

The proposed site of the new VAB includes a developed parcel that is owned and in use by the University for the School of Art and Art History. The site is located along the western edge of the UI arts campus on the south side of River Street. River Street intersects with Riverside Drive approximately 300 feet southeast of the site. Riverside Drive is a designated arterial street. River Street is a residential collector.

To the northwest of the proposed site are apartment houses and residences; to the northeast is River Drive beyond which is a building currently in use by the UI for a portion of its music program and fraternity/sorority houses; to the southeast is an open area designated for staging during construction; and to the southwest is a ravine with residences beyond.

Land-use and zoning regulations are administered and enforced by the City of Iowa City, but the University of Iowa is exempt from the city building code and zoning regulations. The site is currently zoned RNS20. The purpose of the RNS20 zone is to stabilize and preserve the character of older neighborhoods that contain a mix of single-family housing, duplexes, single-family structures that have been converted to multi-family housing and properties that have been redeveloped with multi-family housing. The UI could apply to the City of

Iowa City for rezoning to P2, public/semipublic. The P2 zoning has some dimensional and site development guidelines, not regulations, that are intended to help create a constant transition between public and private uses.

### **5.5.1 No Action**

The No Action Alternative would have no significant effect on land use and planning. This alternative would not involve any demolition, construction, improvements, or ground disturbance to the project.

### **5.5.2 Proposed Action**

Land required for the Proposed Action is owned and in use by UI. Upon demolition of the existing structure and construction of the new VAB, there will be little or no change in land-use. By constructing the VAB at the proposed site, the benefits of positive land-use relationships will be achieved consistent with the UI Campus Master Plan and the instructional requirements of the School of Art and Art History.

## **5.6 Hazardous Substances**

Hazardous materials and wastes are regulated in Iowa by a combination of federal and state laws. Federal regulations governing the assessment and disposal of hazardous wastes include the Resource Conservation and Recovery Act (RCRA) and amendments, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Toxic Substances Control Act.

The potential for soil contamination is unknown; however, if contamination is present, the University will be required to coordinate with the Iowa Department of Natural Resources prior to proceeding with the project. The nearest DNR Field Office is #6 located in Washington, south of Iowa City.

### **5.6.1 No Action**

The No Action Alternative would have no significant effect on unidentified hazardous or contaminating substances. This alternative would not involve any construction, improvements, or ground disturbance at the project site.

### **5.6.2 Proposed Action**

The proposed location contains a multistory structure that will require demolition prior to construction of the new VAB. An asbestos inspection is required by law prior to demolition. There are no known underground storage tanks that contained heating oil or other petroleum-based fluids present in the area. Other sources of potential contamination are not known on the site.

In the event that soil and/or groundwater contamination is discovered during construction activities, the IDNR should be contacted at Field Office #6 (319) 653-2135. Work within the discovered contaminated area should not resume until IDNR personnel indicate no further assessment is necessary.

## 5.7 Noise

The Noise Control Act was enacted in 1972 (P.L. 92-574). EPA does not have regulatory authority governing noise in local communities. In 1982, the EPA shifted federal noise control policy and transferred the primary responsibility of regulating noise to state and local governments. The Noise Control Act of 1972 and the Quiet Communities Act of 1978, however, were not rescinded by Congress and remain in effect. Inadequately controlled noise presents a growing danger to the health and welfare of the nation's population. The major sources of noise include transportation vehicles and equipment, machinery, appliances, other products in commerce, climate, and recreation. Sounds, which disrupt normal activities or otherwise diminish the quality of the environment, are designated as noise. Noise can be stationary or transient, intermittent or continuous. Noise is considered unwanted sound and is typically measured in decibels (dB). The day-night average sound level (Ldn) is the 24-hour average sound level and is used by agencies for estimating sound impacts and establishing guidelines for compatible land uses. The U.S. Department of Housing and Urban Development (HUD) regulations set acceptable noise levels at 65 Ldn or less (24 CFR Part 51, Subpart B). Typical residential construction codes require a minimum exterior to interior insertion loss, or noise reduction, of 20 dBA. The EPA identifies a 24-hour exposure level of 70 decibels (dB) as the level of environmental noise which will prevent any measurable hearing loss over a lifetime.

Likewise, levels of 55 dB outdoors and 45 dB indoors are identified as preventing activity interference and annoyance (e.g., spoken conversation, sleeping, working, recreation). The levels represent averages of acoustic energy over long periods of time such as 8 hours or 24 hours rather than single events (<http://www.epa.gov/history/topics/noise/01.htm>). These noise levels are contained in the EPA document, "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety." According to the Iowa City Code, "any noise that interferes with the comfortable enjoyment of life or property of the neighborhood" is forbidden. The City of Iowa City does not authorize amplified sound in a residential area with the exception of events held at churches or schools.

### 5.7.1 No Action

The No Action Alternative would not affect noise levels within the proposed project area or the surrounding community. No construction activities would occur with the selection of the No Action Alternative.

### 5.7.2 Proposed Action

The Proposed Action would result in short-term increases in noise levels in the vicinity of the project area caused by construction. Construction activities would be generally limited to daylight hours and week days, and therefore would not affect ambient noise levels at night or on weekends in surrounding areas.

Short term increases in noise are anticipated during construction. The proposed project would require approximately 4 weeks of demolition activities and 33 months to construct. The use of some heavy equipment should be anticipated. Noise levels during certain short-term phases of construction, such as the advancement of pilings or drilled piers may be distracting in the immediate construction area, but are not anticipated to interfere or cause significant impact to receptors in neighboring areas. Because of the developed nature of the site and the anticipated project footprint, grading of soil with large scale heavy equipment will be minimal. Construction noise is not anticipated to cause significant impact.

Long term increases in noise are not anticipated. The Proposed Action will serve as a faculty/student administrative, exhibition, and instructional facility. Compared to current usage, vehicle traffic noise is not anticipated to increase significantly. Pedestrian and bicycle traffic are expected to increase, but attendant sound level increases are not. The Proposed Action is expected to not have long-term adverse impacts on the current noise quality of the area.

## 5.8 Socioeconomic Considerations

Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority and Low-Income Populations” directs federal agencies to focus on human health and environmental conditions in minority and low income communities. The executive order’s objectives are to achieve greater environmental justice, foster non-discrimination in federal programs with significant human health or environmental impacts, and to provide minority and low income communities opportunities for public participation in and access to public information on issues regarding human health and the environment. Disproportionately high and adverse health or environmental effects on minority and low income populations are to be identified and addressed, as appropriate.

The data used for this Environmental Justice analysis were taken from the 2010 Census (US Census Bureau, 2010) where available and from the 2000 Census (US Census Bureau, 2000) for census items which were not yet available from the 2010 Census at the time of this writing. The construction footprint for the Proposed Action falls at the edge of Census Tract 23, Block Group 2 and Census Tract 23, Block Group 1 of Johnson County, Iowa, so these block groups are considered the project area for purposes of socio-economic evaluation. As of the 2010 census there were 67,862 people and 27,657 households residing in Iowa City. The Proposed Action area consists of 4,510 people and 1,072 households.

Compared to Iowa City as a whole, this area has a slightly lower total proportion of racial minority residents with a smaller African-American proportion and a slightly larger Asian proportion. The proportion of the area population that is white is 87.4% followed by 7.3 % Asian and 2.0% African American compared to the city’s proportions of 82.5%, 6.9% and 5.8% respectively. Additionally, 3.9% of the area’s residents report Hispanic or Latino heritage compared to the city’s proportion of 4.8%. The presence of college student housing in this area is reflected by the larger proportion of residents aged 15-24 years in the area, 32.7%, as compared to the city’s proportion of 11.4%. Although this area has a larger proportion of working-age residents than the city, its median age of 20.5 is younger than the city’s median of 30.5. The area has a smaller proportion of residents over the age of 64 (5.7%) and under the age of 18 (6.9%) than the city as a whole (9.8% and 20.6% respectively). There are 1,072 households in the project area with a median household size of 2.11 compared to the average size of 2.35 for the city.

*Table 5-1: Total minority and below poverty level populations.*

Geography	Minority Status (SF1-2010 Census)			Poverty Status (SF3-2000 Census)		
	Total	Minority Pop.	Percentage	Total	Poverty Pop.	Percentage
Iowa City	67,862	11,858	17.5%	56,302	12,234	21.7%
Project Area	4,510	567	12.6%	2,470	572	23.2%

Median household income (from the 2000 Census) within the area was \$31,154 while the median for the city was \$34,977. A larger proportion of the area population (23.2%) was below the poverty threshold for the area than for the city as a whole. These lower income levels are likely associated with the presence of student populations.

*Table 5-2: Population per Jurisdiction*

<b>Jurisdiction</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>
Iowa	2,776,755	2,926,234	3,046,355
Johnson County	96,119	111,006	130,882
Iowa City	59,738	62,220	67,862

### **5.8.1 No Action**

The No Action Alternative would have no impact on the socioeconomics of the project area because no construction activity would occur.

### **5.8.2 Proposed Action**

Relocation of the VAB under this alternative would result in a positive impact with an influx of workers needed for the approximately two years of construction activities. Construction personnel would provide short-term benefits to local businesses through activities such as the purchase of food, gas and other services. The Proposed Action will also provide a valuable educational facility which will serve the public without displacing any nearby residents or minority populations during the construction phase. The current surrounding land uses of educational facilities and open space and the proposed alternative are likely to be mutually beneficial. The Proposed Action has little likelihood of disproportionate adverse impacts on any low-income or minority populations. The land-use changes would be beneficial to the area and would not cause adverse environmental or economic impacts specific to any groups or individuals.

## **5.9 Transportation**

The existing and proposed locations of the VAB are accessed primarily via North Riverside Drive which connects to Highway 6 to the south and Park Road to the north. Both of these roads are significant corridors for Iowa City and the University of Iowa. North Riverside Drive serves primarily as a connector between these two roads and provides vehicular access to the arts campus as well as access to one side of the Manville Heights neighborhood to the west. Average Annual Daily Traffic (AADT) counts are collected to provide numerical data to evaluate the level of traffic on roads where counts take place to aid in road planning efforts. AADT counts from the Iowa Department of Transportation (IDOT) indicate a significant decline in traffic on North Riverside Drive between Highway 6 and the Hancher Auditorium parking lot. The 2006 AADT map shows 7900 trips in the area whereas the 2010 AADT map shows merely 2110 trips. AADT counts are not currently available for North Riverside Drive or River Street through Johnson County Council of Governments (JCCOG), the area Metropolitan Planning Organization (MPO).

### **5.9.1 No Action**

With the No Action Alternative, the damaged art building would not be relocated and there would be no impact to the existing traffic and circulation in the area because there would not be any construction activities.

### **5.9.2 Proposed Action**

Under this alternative, the construction of the VAB at the proposed site may sporadically, temporarily disrupt the traffic flow on River Street and North Riverside Drive. Local traffic would need to slow down or stop to accommodate the mobilization of some heavy equipment such as backhoes and cranes used during construction. Flagmen and possibly escort vehicles, as appropriate, would be utilized to sustain traffic flow while maintaining safe working and traffic conditions. This activity may have a short-term effect on the level of service for these roads during the construction period. This level of service would, however, be expected to return to a comparable level upon completion of the project.

The proposed project may generate additional traffic in the area; however such increases are expected to be commensurate with the pre-flood traffic levels. One access road is planned for relocation. The access road leading to a parking lot to the west of the Proposed Action, Lot #42 will be relocated from its current location adjacent to the southeast border of the Proposed Action site to immediately north of ABW. Traffic into this access road will enter from North Riverside Drive, rather than River Street (Appendix A, Figure 2). Impact to traffic flow is expected to be negligible. A major factor in the University's selection of the proposed 109 River Street site was its accessibility to ABW for quick and easy pedestrian traffic between the two facilities.

## **5.10 Water Resources**

Executive Order (EO) 11990 (wetlands) requires federal agencies to avoid, to the extent possible, adverse impact of wetlands. EO 11988 (floodplain management) requires the federal government to minimize the occupancy and modification to floodplains. Specifically, EO 11988 prohibits federal agencies from funding new construction in the 100-year floodplain, or 500-year floodplain for a "critical action" (e.g. Hospital, Fire Station), unless there are no practical alternatives.

The U.S. Army Corps of Engineers (USACE) is responsible for permitting and enforcement functions dealing with building in U.S. waters and discharging dredged fill material into U.S. waters. USACE regulations for building or working in navigable waters of the United States are authorized by the Rivers and Harbors Act of 1899. These regulations coincide with Section 404 of the Clean Water Act, which establishes the USACE permit program for discharging dredged or fill material. The regulations are often used concurrently because building in navigable waters of the United States also constitutes discharging dredged or fill material into waters of the United States. In addition to regulating construction or work being done in navigable waters of the United States, USACE regulates discharging into wetlands through the Section 404 permit program.

### **5.10.1 Wetlands**

Wetlands are defined by the USACE as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." EO 11990, Protection of Wetlands, requires Federal agencies to

take action to minimize the destruction or modification of wetlands, by considering both direct and indirect impacts to wetlands that may result from federally funded actions.

Activities disturbing jurisdictional wetlands require a permit from the USACE. Two types of authorization are available from the USACE for activities regulated under Section 404 of the Clean Water Act: general permits, which are issued for a specific category of similar activities and include nationwide permits defined in 33 CFR Part 30, and individual permits issued after review of the project, project alternative, and proposed mitigation.

#### **5.10.1.1 No Action**

The No Action Alternative would not affect wetlands. No construction activities would occur with the selection of the No Action Alternative.

#### **5.10.1.2 Proposed Action**

The City's planning documents do not identify the area of the Proposed Action as a sensitive area. A review of the U.S Fish and Wildlife Service National Wetlands Inventory indicates no wetlands are located on the proposed project site. A small area located on the Art Building West site are the nearest mapped wetlands, approximately 500 feet away. This area is designated PUBFx, palustrine (swamp or marsh), unconsolidated bottom, semi permanently flooded, excavated. The channel and immediate shoreline of the Iowa River are located approximately 900 to 1000 feet from the site and are classified as R2UBH wetlands, Riverine, lower perennial, unconsolidated bottom, permanent.

A site visit was conducted on September 8, 2011 to assess the occurrence of wetlands and is detailed in a report by Graham Environmental Services, Art School Site – Wetland Delineation Report, Iowa City, Iowa (Appendix D). The site was assessed for wetlands using the on-site methods contained in the “Routine Determination” section of the USACE “Wetlands Delineation Manual” and “Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Midwest Region”. This is the methodology currently used to determine wetlands by the USACE for implementation of Section 404 of the CWA.

A small wetland was delineated in the narrow ravine near the southwestern boundary of the Proposed Action site. The wetland is bounded by steep slopes on either side and appears to receive storm water fairly regularly. Vegetative and soil profile evidence were used to delineate the wetland and is classified PFO1Cd, seasonally flooded, palustrine, deciduous forested, drained. The contractor would implement specific best management practices to reduce or eliminate runoff impacts during proposed construction activities of the Proposed Action and to reduce the potential for soil erosion after construction (see 5.4.2). The Proposed Action will not impact the delineated wetland or other nearby wetlands.

#### **5.10.2 Floodplain**

EO 11988 (Floodplain Management) requires that a Federal agency avoid direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative. FEMA uses Flood Insurance Rate Maps (FIRM) to identify the regulatory 100-year floodplain for the National Flood Insurance Program (NFIP). Johnson County, Iowa is a participant in the NFIP. While the Visual Arts Building is not considered a “critical action” according to 44 CFR Part 9 and thus not required to be evaluated against the 500-year floodplain, the City of Iowa City has established the 500-year floodplain as a higher standard than

FEMA's requirements. The UI has chosen to use the City's higher standard for its considerations on relocating the VAB.

FEMA's procedures for implementing EO 11998 (44 CFR Part 9, Section 9.6) include an eight-step review process that decision-makers must use when considering projects that have potential impacts to or within a floodplain. However, the proposed new location for the art building will not be within the 100-year floodplain and thereby not require an eight-step review process.

#### **5.10.2.1 No Action**

The No Action Alternative would not affect floodplains. Construction activities would not occur with the selection of the No Action Alternative.

#### **5.10.2.2 Proposed Action**

Consistent with EO 11988, FIRMs were examined during the preparation of this EA. According to FIRM Panel 19103C0195E, dated 2/16/2007, the proposed art building is located outside the 500-year floodplain (see Appendix A, Figure 4). The FIRM data indicates that much of the site adjacent to the southeast of the identified project location, to be used as a construction staging area, is located within the 500-year floodplain. Construction staging will be temporary and will not result in long-term impacts to the floodplain. The construction of the new VAB is not anticipated to have long-term impacts on the floodplain nor be impacted by the floodplain.

### **5.11 Demolition**

Land required for the Proposed Action is currently occupied by the former Alpha Sigma Phi fraternity house, 109 River Drive (Appendix B). Demolition of the former fraternity is planned. Potential impacts caused by demolition include impacts to air quality, cultural resources, hazardous substances, noise, transportation and water quality.

Air quality may be temporarily impacted by particulate matter, but mitigation measures carried out by the demolition contractor, such as wetting, would minimize or eliminate dust. The potential for asbestos becoming airborne and subject to inhalation during demolition is eliminated by required pre-demolition inspection, testing and abatement of asbestos containing materials. The IDNR considers whole-building demolition debris a non-hazardous waste with respect to lead. Sampling and analysis of painted components for lead is not required for disposal of whole-building debris as non-hazardous waste.

Hazardous substances other than asbestos that may possibly impact the environment during demolition have not been discovered nor are anticipated. If hazardous substances or petroleum contaminated soil are discovered during demolition, the University will be required to coordinate with the Iowa Department of Natural Resources prior to proceeding with the project.

#### **5.11.1 No Action**

With the No Action Alternative, the damaged art building would not be replaced and the 109 River Street building would not be demolished, so there would be no impact to the resources of the area.

### **5.11.2 Proposed Action**

Under this alternative, demolition of 109 River Street would occur to make the land available for construction of the new VAB. The demolition work must comply with all Federal, state, and local abatement and disposal requirements for materials containing asbestos and other hazardous materials.

Iowa DNR requires that structures be tested for asbestos containing material prior to demolition. If testing is not conducted, all debris or demolition material must be disposed of as if it contained asbestos. IDNR requires at least 10 days notice prior to renovation, repairs, or demolition. Call 515.281.6175 for details or visit <http://www.iowaworkforce.org/labor/asbestos.htm>.

The demolition activities should use best management practices to prevent erosion and release of sediment to the surrounding waterways. This includes equipment storage and staging of construction materials to prevent erosion and sedimentation to ensure that wetlands are not adversely affected per the Clean Water Act and Executive Order 11990 (see 5.4.2).

### **5.12 Cumulative Impacts**

The CEQ regulations for implementing NEPA require an assessment of cumulative effects during the decision-making process for federal projects. Cumulative effects are defined 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 non-federal) or person undertakes such other actions” (40 CFR Part 1508.7). Cumulative effects are considered for both the No Action and Proposed Action Alternatives. Cumulative effects were determined by combining the effects of the alternative with other past, present, and reasonably foreseeable future actions in the project vicinity.

There were no reasonably foreseeable actions identified in the project vicinity that would have the potential for a cumulative impact. If the UI VAB is not rebuilt outside of the 500-year floodplain, the building would remain vulnerable to future flooding and dispersal of VAB functions would continue to negatively impact the quality of education the UI provides to students. The development of the site into the new UI VAB does not pose a significant cumulative impact compared to the No Action Alternative. The project’s potential adverse effects were limited to the periods of demolition of the existing 109 River Street structure and construction of the new VAB. It was determined that there were no cumulative impacts as a result of these effects.

### **5.13 Coordination and Permits**

In the event that archaeological deposits (soils, features, artifacts), or other remnants of human activity are uncovered, or if archaeological deposits are discovered during construction of the project, activities would cease in the immediate area, and the Iowa SHPO and the FEMA Regional Environmental Officer would be notified before work would continue (section 5.3 Cultural Resources). Work in sensitive areas cannot resume until a qualified archaeologist determines the extent of the discovery, consultations between SHPO and FEMA are complete, and the applicant has been notified by SHPO and FEMA. As the selected site is currently occupied by a historic property that will be demolished for the new VAB, FEMA has initiated the MOA process with SHPO and interested parties to resolve the adverse effect. This process will continue concurrently with the public comment period for this EA.

Construction of the new VAB will not require a building permit from the Iowa City Building Department. The University of Iowa is required to obtain and comply with all required state and federal permits. A general NPDES Permit, or a waiver of the permit, will be required to be obtained from the Iowa Department of Natural Resources. A Section 404 permit will not need to be obtained unless dredged material is placed in a jurisdictional wetland. If hazardous materials or soil contamination is discovered, the UI is required to contact the Iowa Department of Natural Resources and comply with all State environmental and EPA requirements. The UI or the UI's contractors would need to prepare a SWPPP and apply for an NPDES permit if one or more acres of land are disturbed for construction activities.

## 6. CONCLUSION

This draft EA evaluated potentially significant resources that could be impacted. The evaluation resulted in identification of no significant impacts associated with the resources of air quality; geology and soils; floodplains; wetlands and water resources; vegetation; biological resources (endangered species); and socioeconomic and environmental justice issues. Obtaining and implementing permit requirements along with appropriate Best Management Practices and execution of the MOA will avoid or minimize any effects associated with the action. Should no significant impacts be identified during the public comment period, it is recommended that a Finding of No Significant Impact (FONSI) to the human or natural environment be issued for the Proposed Action Alternative.

# 7. PARTIES CONSULTED AND REFERENCES

## 7.1 Parties Consulted

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