DRAFT ENVIRONMENTAL ASSESSMENT (EA) AND FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR

CONSTRUCT MISSION SUPPORT GROUP FACILITY MINNEAPOLIS-SAINT PAUL IAP ARS, MINNESOTA



PREPARED BY:

Department of the Air Force 934th Airlift Wing U.S. Air Force Reserve

May 2019

Letters or other written comments provided may be published in the Final EA. As required by law, substantive comments will be addressed in the Final EA and made available to the public. Any personal information provided will be kept confidential. Private addresses will be compiled to develop a mailing list for those requesting copies of the Final EA. However, only the names of the individuals making comments and their specific comments will be disclosed. Home addresses, private email addresses, and private phone numbers will not be published in the Final EA.

DRAFT FINDING OF NO SIGNIFICANT IMPACT (FONSI)

CONSTRUCT MISSION SUPPORT GROUP FACILITY MINNEAPOLIS-ST. PAUL IAP ARS, MINNESOTA

Pursuant to provisions of the National Environmental Policy Act (NEPA), Title 42 United States Code Sections 4321 to 4347, implemented by Council on Environmental Quality (CEQ) Regulations, Title 40 Code of Federal Regulations (CFR) §1500-1508, and Title 32 CFR §989, Environmental Impact Analysis Process, the U.S. Air Force assessed the potential environmental impacts associated with construction of a new "Mission Support Group Facility", and associated demolition of four sub-standard facilities, at Minneapolis-St. Paul (MSP) International Airport (IAP) Air Reserve Station (ARS), Hennepin County, Minnesota.

The purpose of the project/action is to provide the 934th Airlift Wing (934 AW) with a modern, state-of-the-art facility (institutional building) to house administrative functions of the 934th Mission Support Group (934 MSG), its subordinate organizations, and other 934 AW direct-reporting staff agencies. This project/action is needed because these various administrative functions are currently housed within four existing sub-standard facilities originally constructed in 1942-1946, which are no longer suitable for meeting the operational needs of the 934 MSG.

The Environmental Assessment (EA), incorporated by reference into this finding, analyzed the potential environmental impacts of activities associated with "Construct Mission Support Group Facility". The EA considered all potential impacts of the following two alternatives, along with the No-Action Alternative. The EA also considered cumulative environmental impacts in relation to other projects in the Region of Influence.

ALTERNATIVE 1 (Preferred Alternative)

Alternative 1 includes constructing a new two-story MSG facility immediately west of Building 760. Site currently consists of parking lot. Demolish Buildings 852, 725, 727, and 729.

ALTERNATIVE 2

Alternative 2 includes constructing a new two-story MSG facility immediately west of Building 852 (current MSG facility), between two other existing facilities (760 and 840). Site currently consists of parking lot and open lawn. Demolish Buildings 852, 725, 727, and 729.

NO-ACTION ALTERNATIVE

Under the No-Action Alternative, no construction would occur and no demolition would occur. The various organizations and personnel currently occupying Buildings 852, 725, 727, and 729 would all continue to occupy currently assigned space within those existing facilities.

SUMMARY OF FINDINGS

The analysis of the affected environment and environmental impacts of implementing either Alternative 1 (Preferred Alternative) or Alternative 2, as well as the No Action Alternative, concluded that no significant adverse effects to the following resources would result:

Land Use / Noise / Air Installation Compatible Use Zone Air Quality Water Resources Safety and Occupational Health Hazardous Materials / Waste Biological / Natural Resources Cultural Resources Geology / Soils / Topography Socioeconomic Resources / Environmental Justice Transportation Resources

No significant adverse cumulative impacts would result from activities associated with Alternative 1 (Preferred Alternative) or Alternative 2, as well as the No Action Alternative, when considered in relation to past, present, or reasonably foreseeable future projects within the region of influence.

This proposed action has been reviewed in accordance with the requirements of 40 CFR, Part 93, Subpart B - Determining Conformity of General Federal Actions to State or Federal Implementation Plans. The review concluded that a conformity determination is not required for this action because the maximum annual total direct and indirect emissions of this action are estimated as less than the applicable rates specified in 40 CFR 93.153(b). Estimated annual air emissions increases from the proposed action would not be considered regionally significant

FINDING OF NO SIGNIFICANT IMPACT

Based on my review of the facts and analysis contained in the attached EA, conducted under the provisions of NEPA, CEQ Regulations, and 32 CFR §989, I conclude that the Preferred Alternative (Construct a new MSG facility immediately west of Building 760; Demolish Buildings

852, 725, 727, and 729) would not have a significumulatively with other known projects. According required. The signing of this Finding of No Significationallysis process.	lly, an Environmental Impact Statement is not
ANTHONY G. POLASHEK, Colonel, USAF Commander	Date

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1.0 PROPOSED ACTION AND ALTERNATIVES

1.1 IDENTIFICATION OF PROPOSED ACTION

The U.S Air Force Reserve's 934th Airlift Wing (934 AW) has proposed Air Force project QJKL090004, Mission Support Group Facility, which includes constructing a new two-story administrative building, with finished usable gross floor space totaling 22,575 square feet, and subsequent demolition of four substandard buildings (Facilities 725, 727, 729, 852) at Minneapolis-St. Paul (MSP) International Airport (IAP) Air Reserve Station (ARS), Hennepin County, Minnesota.

1.2 PROPOSED ACTION (PROJECT) LOCATION:

County: Hennepin

City/Township: Fort Snelling Unorganized Territory

City of Minneapolis

PLS Location: NW ¼ of SE ¼ of Section 19, Township 28N, Range 23W

Watershed (81 major watershed scale): Mississippi River – Twin Cities

Tax Parcel Number(s): 19-028-23-31-0009

19-028-23-31-0002

GPS Coordinates:

Construction Site Alternative 1: 44.895808, -93.217379. Construction Site Alternative 2: 44.895386, -93.216428. Facility 725 Demolition Site: 44.897761, -93.214311. Facility 729 Demolition Site: 44.897763, -93.213219. Facility 852 Demolition Site: 44.895242, -93.215697.

Project location and specific sites are depicted on maps provided in Appendix A.

1.3 REGULATORY REQUIREMENTS FOR ASSESSMENT

Pursuant to National Environmental Policy Act (NEPA) requirements as implemented by the Council on Environmental Quality (CEQ) Regulations in Title 40, Code of Federal Regulations (CFR) §1500-1508, and Air Force Regulations in 32 CFR §989, Environmental Impact Analysis Process, the Air Force must consider and document environmental effects of proposed Air Force actions. The proposed action does not qualify for any of the Air Force-approved Categorical Exclusions listed in 32 CFR §989. As the "proponent" for the proposed action, the 934 AW is therefore responsible for preparing an Environmental Assessment (EA) documenting analysis of potential environmental impacts associated with a proposed federal action.

The proposed action is exempt from state environmental review requirements under Minnesota Rules Chapter 4410, Environmental Quality Board Environmental Review. The specific exemption applicable is listed at chapter 4410.4600, Subpart 10.A.(3) (Construction of a new institutional facility of less 100,000 square feet gross floor space, within a first class city, if no part of the development is within a shoreland area, delineated flood plain, state or federally designated wild and scenic rivers district, the Minnesota River Project Riverbend area, or the Mississippi headwaters area).

1.4 BACKGROUND

The 934 AW occupies and operates the MSP IAP ARS. The primary cantonment for the 934 AW is an 88-acre tract designated as "Area N", adjacent to the northern perimeter of the international airport. Area N is predominantly within the municipal boundary of the City of Minneapolis, but also includes some area that extends into Fort Snelling Unorganized Territory. The property has a military history dating back to 1928, when the U.S. Navy established "Naval Reserve Air Base Minneapolis" at the site. During World War II, the Navy expanded the base and re-designated it as "Naval Air Station Minneapolis". In 1970, the Navy vacated most of the property and transferred it to the Air Force. The 934 AW moved onto the property and into the facilities present at that time, most of which had been constructed for the Navy between 1941 and 1946.

1.5 PURPOSE AND NEED FOR PROPOSED ACTION

Although the 934 AW has periodically replaced facilities and redeveloped portions of the property to meet its needs over the past 49 years, more than half of the facilities still in use within Area N date back to the period of Navy ownership. Since 2007, one of the 934 AW's long-term priorities has been to secure funding and authorization for construction of a new "Mission Support Group Facility", which would be an institutional building housing various key administrative functions.

The purpose of the proposed action is to provide the 934 AW with a modern, state-of-the-art facility, within the secure setting of a controlled-access military installation, to house administrative functions of the 934th Mission Support Group (934 MSG) and other select 934 AW direct-reporting staff agencies; and to then eliminate aging and outdated facilities that would no longer be needed to house those administrative organizations.

The need for the Proposed Action is to address deficiencies of usable space (i.e., facilities) available to house administrative functions of the 934 MSG, subordinate organizations, and other select 934 AW direct-reporting staff agencies. (Throughout the remainder of this document, these organizations are collectively referred to as simply "934 MSG"). Existing facilities currently in use were originally constructed in 1942-1946, and are no longer suitable for meeting the operational needs of the 934 MSG. The primary facility currently being used to house 934 MSG was categorized by the Air Force as "substandard" as long ago as 1990, and all four facilities proposed for demolition were categorized by the Air Force as "semi-permanent" as long ago as 1996.

1.6 DETAILED DESCRIPTION OF THE PROPOSED ACTION

Air Force project QJKL090004 includes one facility construction component and four facility demolition components:

- Construction of a new two-story administrative building, with finished usable gross floor space totaling 22,575 square feet, on developed land on a military installation, in a setting similar to an industrial/business park. Actual building footprint will most likely be less than 13,000 square feet.
- Demolition of existing Facility 852, a two-story building which totals 17,967 gross square feet (GSF) (footprint of 9,221 square feet) and which currently serves as administrative office space for 934 MSG. This facility was originally constructed in 1942 and was used by the Navy as an "Instruction Building". It has been used for administrative office space by the 934 AW since 1970.
- Demolition of existing Facility 725, a two-story building which totals 2,389 GSF (footprint of 810 square feet), and which currently serves as the wing's chapel; administrative office

space; and office/storage space. This facility was originally constructed in 1946 and was used by the Navy as a single-family housing unit until 2000.

- Demolition of existing Facility 727, a two-story building which totals 2,980 GSF (footprint
 of 1,128 square feet), and which currently serves as administrative office space. This
 facility was originally constructed in 1946 and was used by the Navy as a single-family
 housing unit until 2000.
- Demolition of existing Facility 729, a two-story building which totals 6,745 GSF (footprint
 of 3,260 square feet), and which currently serves as administrative office space. This
 facility was originally constructed in 1946 and was used by the Navy as a four-plex
 apartment housing unit until 2000.

1.7 ALTERNATIVES SELECTION STANDARDS

NEPA and CEQ regulations mandate the consideration of reasonable alternatives for the proposed action. "Reasonable alternatives" are those that also could be utilized to meet the purpose and need for the proposed action. Per the requirements of 32 CFR §989 (the U.S. Air Force Environmental Impact Analysis Process regulations), selection standards are used to identify alternatives for meeting the purpose and need for the Air Force action.

The proposed action alternatives must meet the following selection standards:

- 1) Sites considered for construction must be within the secure/fenced perimeter of the MSP IAP ARS in order to be operationally efficient on a day-to-day basis.
- 2) Sites considered for construction must meet applicable Department of Defense (DoD) force protection/anti-terrorism facility siting criteria.
- 3) Sites considered for construction must not be designated as the location for other critical future development priorities.
- 4) Sites considered for construction must be outside any zones/areas subject to applicable development restrictions/constraints (e.g., building restriction zones related to MSP runway proximity).
- 5) Action alternative must not require displacing other 934 AW organizations/operations.

1.8 SCREENING OF ALTERNATIVES

The following potential alternatives could conceivably be pursued to provide administrative space for 934 MSG:

- 1) Alternative 1 Construct new MSG facility immediately west of Building 760. Site currently consists of parking lot. Demolish Buildings 852, 725, 727, and 729.
- 2) Alternative 2 Construct new MSG facility immediately west of Building 852 (current MSG facility), between two other existing facilities (760 and 840). Site currently consists of parking lot and open lawn. Demolish Buildings 852, 725, 727, and 729.
- 3) Alternative 3 Construct new MSG facility northwest of Building 707 and 2nd Street. Site currently consists of open recreational/athletic field. Demolish Buildings 852, 725, 727, and 729.
- 4) Alternative 4 Demolish Buildings 725 and 727. Construct new MSG facility in the area currently occupied by these facilities. Demolish Buildings 729 and 852.

5) Alternative 5 – Lease administrative space in existing facilities outside the installation.

The selection standards described previously were applied to these alternatives to determine which alternative(s) could meet the desired outcome of the project and fulfill the purpose and need for the action. The comparison between the alternatives with regard to the selection standards is presented in the following table.

Table 1. Comparison of Alternatives and Selection Standards

	Selection Standards				
Alternative Descriptions	Site within secure confines of MSP IAP ARS	Site meets applicable DoD force protection / anti-terrorism criteria	Site not designated for other critical future development priorities	Site outside zones/areas subject to development restrictions / constraints	Does not require displacing other 934 AW organizations / operations
4 0 4 4400 6 1111	(1)	(2)	(3)	(4)	(5)
1 – Construct MSG facility west of Building 760. Demolish 852, 725, 727, 729.	Yes	Yes	Yes	Yes	Yes
2 – Construct MSG facility west of Building 852. Demolish 852, 725, 727, 729.	Yes	Yes	Yes	Yes	Yes
3 – Construct MSG facility northwest of Building 707. Demolish 852, 725, 727, 729.	Yes	Yes	No	Yes	Yes
Alternative 4 – Demolish 725, 727. Construct MSG facility in that area. Demolish 729, 852.	Yes	Yes	Yes	Yes	Partially
Alternative 5 – Lease administrative space outside the installation.	No	No	Yes	Yes	Yes

1.9 ALTERNATIVES TO BE ANALYZED

Three alternatives (Alternative 1, Alternative 2, and "No-Action") were selected for analysis.

1.9.1 Alternative 1

Construct MSG facility west of Building 760. Demolish existing Buildings 852, 725, 727, 729. This alternative would involve construction of a new two-story administrative building, with finished usable space totaling 22,575 square feet, on previously developed land on a military installation, within a setting similar to an industrial/business park. The specific site for this alternative is located on an existing asphalt parking lot of approximately 30,000 square feet, with base streets on all

four sides. Existing administrative facilities are located across the street from the site on three side (north, east, and south). The construction period, from groundbreaking to beneficial occupancy, is estimated to be approximately nine to twelve months duration.

This alternative assumes that future occupants of the new facility would continue to use their existing space until the new facility is completed. At that time, the various personnel and office functions would move into the new facility. A period of approximately one month for relocations is assumed. Subsequent to completion of the relocations, a demolition phase would occur. Demolishing all four existing Buildings 852, 725, 727, and 729, with all associated debris removal and site restoration, would take approximately one to three months.

1.9.2 Alternative 2

Construct MSG facility west of Building 852. Demolish existing Buildings 852, 725, 727, 729. This alternative differs from Alternative 1 only in the specific site that would be used for construction of the new two-story administrative building. The specific site for this alternative is located in the midst of four other existing administrative facilities, on an area of approximately 26,000 square feet, with one base street located along the west side of the site. Approximately 62% of this area is currently lawn, walkways, and landscaping. An asphalt parking lot currently occupies the remaining 38% of the site. All assumptions regarding sequence of actions and estimated duration of project phases for Alternative 2 are the same as in Alternative 1.

1.9.3 No Action Alternative

As mandated by 32 CFR Part 989.8, the Air Force must analyze the "no action" alternative in all environmental assessments. For this assessment, "No action" means that no construction would occur and no demolition would occur. The various organizations and personnel would all continue to occupy currently assigned space within existing Buildings 852, 725, 727, and 729.

1.10 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

The other alternatives did not fully satisfy all of the selection standards. Therefore, these alternatives have been eliminated from further consideration and are not carried forward for analysis in this EA:

- Alternative 3 Construct new MSG facility northwest of Building 707 and 2nd Street. Site
 currently consists of open recreational/athletic field. Demolish Buildings 852, 725, 727,
 and 729.
- Alternative 4 Demolish Buildings 725 and 727. Construct new MSG facility in the area currently occupied by these facilities. Demolish Buildings 729 and 852.
- Alternative 5 Lease administrative space in existing facilities outside the installation.

1.11 DETERMINATION TO BE MADE

40 CFR 1508.9 defines an EA as a concise public document, for which a Federal agency is responsible, that serves to briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.

2.0 COORDINATION / CONSULTATION AND PUBLIC REVIEW

2.1 INTERAGENCY COORDINATION AND CONSULTATION

Federal, state, and local agencies with jurisdiction that could be affected by the proposed action, or alternatives, were consulted and/or provided opportunity to review and comment on environmental impacts.

Natural Heritage Information System (NHIS) data and review of potential effects to rare features was requested and received from the Minnesota Department of Natural Resources (DNR), Division of Ecological and Water Resources.

Informal Consultation with the U.S. Fish & Wildlife Service (USFWS) was conducted in accordance with Section 7(a)(2) of the Endangered Species Act.

A search of the Minnesota Statewide Inventory Database of historic properties and archeological sites was requested and received from the Minnesota State Historic Preservation Office (SHPO) Survey and Inventory Coordinator. Consultation with SHPO was also conducted in accordance with Section 106 of the National Historic Preservation Act.

Although the proposed project is exempt from the state of Minnesota's environmental review procedures under Minnesota Rules Chapter 4410, a copy of the draft version of this EA was provided to most of the agencies identified in the state Environmental Quality Board's most recent distribution list of agencies required to be sent a copy of environmental review documents. Due to the location of the proposed action (adjacent to MSP IAP), the Metropolitan Airports Commission (MAC) and Federal Aviation Administration were both provided with an opportunity to review and comment. Refer to Section 6.0 for the list of agencies consulted and/or provided opportunity to review and comment.

2.2 GOVERNMENT TO GOVERNMENT CONSULTATION

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, directs federal agencies to coordinate and consult with Native American tribal governments whose interests might be directly and substantially affected by activities on federally administered lands. Additionally, the National Historic Preservation Act requires that a federal agency carrying out its responsibilities under section 106 of the Act shall consult with any Indian tribe that attaches religious or cultural significance to properties of traditional religious and cultural importance that have been determined to be eligible for inclusion on the National Register of Historic Places.

Eight (8) federally recognized tribes historically affiliated with the geographic locale of MSP IAP ARS were previously consulted by the 934 AW during an assessment to determine the traditional significance, integrity, and National Register eligibility of a local landform (hill) known historically as "Taku Wakan Tipi / Morgan's Mound." Tribes consulted in that effort included:

Prairie Island Mdewakanton Community (Minnesota)
Shakopee Mdewakanton Sioux Community (Minnesota)
Upper Sioux Community (Minnesota)
Lower Sioux Community (Minnesota
Spirit Lake Tribe (North Dakota)
Flandreau Santee Sioux Tribe (South Dakota)
Sisseton-Wahpeton Oyate (South Dakota)
Santee Sioux Tribe (Nebraska)

None of these tribal governments communicated any comment, concern, or identification of Traditional Cultural Properties, traditional cultural places, or sacred sites on or in close proximity to MSP IAP ARS. The landform (Taku Wakan Tipi / Morgan's Mound) was determined to not meet criteria for National Register eligibility.

Based on that consultation and determination, there are no National Register-eligible properties of Native American traditional religious and cultural importance on or adjacent to MSP IAP ARS. There are also no protected tribal resources, tribal rights, Indian lands, or sacred sites (as defined by Executive Order 13007) on or adjacent to MSP IAP ARS. Given the absence of any such rights, resources, or land interests, the proposed action does not have any potential to significantly affect any federally recognized tribes. Consultation with Native American tribal governments is therefore not applicable for this proposed action.

2.3 PUBLIC AND EXTERNAL AGENCY REVIEW

A Notice of Availability (NOA) of the Draft EA and FONSI was published in the Star Tribune newspaper of Minneapolis, Minnesota. The NOA invited the public to review and comment on the Draft EA during a 30-day period. A NOA was also published in the State *EQB Monitor*.

The NOA, as published in the Star Tribune and in the EQB Monitor, are provided in Appendix B. (To be inserted into Final document)

Copies of the Draft EA and FONSI were made available for review at the following locations:

Environmental Conservation Library Hennepin County Library – Minneapolis Central Government Documents – 2nd Floor 300 Nicollet Mall Minneapolis, MN 54401-1992

Official Public Web Site of the 934th Airlift Wing Minneapolis-St. Paul International Airport Air Reserve Station www.minneapolis.afrc.af.mil.

The public and agency review period began May 20, 2019 and ended June 19, 2019.

External agency consultation correspondence and written comments received from the public (if any) are provided in Appendix C. (*To be inserted into Final document*)

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

3.1 SCOPE OF ANALYSIS

The "Region of Influence" for the Proposed Action is the Area N property of MSP IAP ARS, unless otherwise specified for a particular resource area which may have a different Region of Influence.

The following sections identify current conditions of the environmental resources, either manmade or natural, that could be affected by implementing Alternative 1, Alternative 2, or the No Action Alternative. Each section then describes the potential environmental impacts that are likely to occur as a result of implementation of all alternatives that are being considered and analyzed. Impacts are evaluated in terms of type (positive/beneficial or adverse), context (setting or location), intensity (none, negligible, minor, moderate, severe), and duration (short-term/temporary or long-term/permanent). The type, context, and intensity of an impact on a resource are explained within each resource area. Unless otherwise noted, short-term impacts are those that would result from the activities associated with the project's construction and/or demolition phase, and that would end upon the completion of those phases. Long-term impacts are generally those resulting from operations/activities occurring after completion of construction and demolition phases.

This EA also considers the effects of cumulative impacts as required in 40 CFR 1508.7 and concurrent actions as required in 40 CFR 1508.25. A cumulative impact, as defined by the CEQ (40 CFR 1508.7) is 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 which agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

Other proposed actions announced for the region of influence for this project that could potentially occur during the same time period as the proposed action are:

- Air Force project QJKL 100004, Aerial Port Facility, MSP IAP ARS
- Metropolitan Airports Commission 2019-2025 Capital Improvements Program, Minneapolis-St. Paul International Airport
- Navy project P143, Joint Reserve Intelligence Center, Minneapolis Navy Operational Support Center

For this EA analysis, these announced actions are analyzed from a cumulative perspective within each resource area. These announced future actions would be (or already have been) evaluated under separate NEPA actions conducted by the appropriate involved federal agency. The cumulative impact analysis considers the impacts of these proposals by others based on the best available information.

3.2 LAND USE / NOISE / AIR INSTALLATION COMPATIBLE USE ZONE

3.2.1 Affected Environment

Land use immediately surrounding the construction site locations for both alternatives consists of military facilities predominantly categorized as administrative, and roadways. Beyond the installation to the south and west are airfield areas of the commercial airport. Minnesota State Highway 62 is directly north of the installation, approximately 820 feet from the construction site locations. Residential areas within the "Morris Park" neighborhood of the City of Minneapolis are located adjacent to the installation to the northeast, and on the north side of Highway 62. The

closest residential properties are approximately 150 feet east the Building 729 proposed demolition site, and 930 feet northeast of the construction site locations. The nearest park is Bossen Field Park, 0.5 miles to the northwest within the residential areas of Minneapolis. The City of Minneapolis categorizes the current land use of the Air Force property as "Transportation/Communication/Utilities", and future land use as "Public and Institutional".

The construction site for both alternatives are located between the 65 decibel Day-Night Average Sound Level (dB DNL) and 70 dB DNL actual noise contours, as reported by MAC for calendar year 2018.

Air Installation Compatible Use Zone (AICUZ) is an Air Force term that refers to land use compatibility considerations related to proximity to runway protection zones, object free areas, and noise from aircraft operations and/or other Air Force activities.

The airfield at MSP IAP is owned and controlled by MAC, and is regulated by the Federal Aviation Administration (FAA). As such, FAA Advisory Circular 150/5300-13A, *Airport Design*, contains guidance applicable to zones with development restrictions at this installation, and FAA Advisory Circular 150/5370-2G, "Operational Safety on Airports During Construction", contains requirements applicable when construction equipment may exceed heights that could affect air traffic control operations. The two airport runways in closest proximity to the installation are Runway 12L – 30R, oriented southeast to northwest, and Runway 04 – 22, oriented southwest to northeast. The following table identifies the approximate smallest distance between the potential building construction sites under either Alternative 1 or Alternative 2 and the Runway Protection Zones (RPZ), Object Free Areas (OFA), and Building Restriction Lines (BRL) associated with the two runways.

Alternative 1 Alternative 2 Restriction Construction Site Construction Site 12L - 30R BRL 500 feet 520 feet 12L – 30R runway OFA 850 feet 830 feet 12L – 30R RPZ 820 feet 990 feet 04 - 22 BRL 1385 feet 1110 feet 04 – 22 runway OFA 1590 feet 1315 feet 04 – 22 RPZ 2240 feet 1960 feet

670 feet

690 feet

Table 2. Distance from Restricted Zones

3.2.2 Environmental Impacts

Taxiway OFA

Alternative 1.

A long-term minor adverse impact is likely with regard to land use within Area N, if the proposed construction is implemented. Available parking would be reduced by up to 66 spaces.

A long-term positive impact is likely with regard to land use within Area N, if the proposed demolitions are implemented. The sites currently occupied by the four existing facilities would become available for other uses in the long-term (such as parking areas or future construction). No impacts, either positive or adverse, are likely with regard to land use outside area N. Implementing the proposed construction and demolitions would not create any impetus for altering the surrounding airport, highway, or residential land uses.

A short-term adverse negligible impact is likely with regard to noise generated by the proposed demolitions. Due to the proximity of the Building 729 site to a residential neighborhood, the use

of heavy equipment and vehicles during demolition and site restoration activities would likely generate intermittent nuisance noise levels for approximately 14 residential properties during daytime working hours, for a period of one to two weeks. Long-term impacts are highly unlikely.

No impacts, either positive or adverse, are likely with regard to zones of development restriction (RPZ, OFA, BRL). The locations of the proposed construction and demolitions are not close enough to such zones to generate any impact. Any construction or demolition work involving potential obstructions, such as tall equipment (cranes, concrete pumps, other), requires prior review by FAA Minneapolis Airports Division Office for issuance of an aeronautical study number/determination, as well as coordination with the Airport Traffic Control Tower during times when a crane mast will be raised. Use of tall equipment would likely create a short-term negative impact due to the need for FAA issuance of "Notices to Airmen" to adjust aircraft operating minimums at the airport to a safe level during periods of the mast being raised. This impact is considered negligible because use of such procedures is a common temporary occurrence.

Based on the context and intensity of the likely impacts described above, no significant impacts to land use, noise, or AICUZ would result from implementing Alternative 1.

Alternative 2.

Impacts from implementing Alternative 2 would be the same as from Alternative 1, with one exception. If Alternative 2 is implemented, the proposed construction could reduce available parking in Area N to a lesser extent (by only up to 24 spaces). This impact would still be rated as a long-term minor adverse impact.

Based on the context and intensity of the likely impacts described above, no significant impacts to land use, noise, or AICUZ would result from implementing Alternative 2.

No Action Alternative.

No impacts, either positive or adverse, would occur with regard to land use, noise, or AICUZ if no action is taken.

3.2.3 Cumulative Impact Analysis

Alternative 1.

Based on the context and intensity of the likely impacts described previously, no significant cumulative impacts to land use, noise, or AICUZ would result from implementing Alternative 1. The previous assessment of the Air Force Aerial Port Facility project, as part of a long-term development plan, identified insignificant levels of noise generated during construction activities. MAC's assessment of its 2019-2025 Capital Improvements Program determined that although some of the its projects may have temporary environmental effects during construction, such effects would be minimized using typical mitigation measures and best management practices, and would not constitute long-term cumulative potential effects when combined with other projects at MSP. Similar findings can be anticipated for the Navy project, due to nature of these projects and the shared location within or adjacent to the airport complex. The impacts, even when taken cumulatively, will remain insignificant.

Alternative 2.

There would be no difference between Alternatives 1 and 2 with regard to cumulative impacts.

No Action Alternative.

Since no action taken would result in no impacts, there could be no cumulative impacts.

3.3 AIR QUALITY

3.3.1 Affected Environment

Location of the proposed action is within Hennepin County, which is part of the federally defined Minneapolis-St. Paul Intrastate Air Quality Control Region (AQCR 131) in Minnesota. The attainment status designations listed in 40 CFR 81.324 for National Ambient Air Quality Standard "Criteria Pollutants" in the Hennepin County portion of AQCR 131 are:

Sulfur Dioxide (SO²): Better than national standards

Carbon Monoxide (CO): Attainment

Particulate Matter (PM-10): Unclassifiable/Attainment
Particulate Matter (Annual PM^{2.5}): Unclassifiable/Attainment
Particulate Matter (24-hour PM^{2.5}): Unclassifiable/Attainment

Nitrogen Dioxide (Annual NO²): Cannot be classified or better than national standards Cannot be classified or better than national standards

Ozone (O³) 8-Hour Standard: Unclassifiable/Attainment Lead: Unclassifiable/Attainment

During the 1990s, the Hennepin County portion of AQCR 131 was included in area designated as non-attainment for both SO² and CO. The Hennepin County portion of AQCR 131 was redesignated to attainment for SO² in July 1995, and to attainment for CO in November 1999. It is therefore considered to be a "maintenance area" for those two pollutants.

The 934 AW is characterized as a "minor source" or air pollutants, with annual potential air emissions below any state or federal thresholds that would require regulatory permitting.

3.3.2 Environmental Impacts

Alternative 1.

The proposed new MSG facility would be used as administrative/office space. There would be no industrial operations within it. The types of air emissions units present would be natural gas-fired heating systems, and an emergency generator that would operate on diesel fuel. Since the proposed action includes demolition of four existing older facilities with individual natural gas-fired heating, one of which has an existing emergency generator, any change (whether increase or decrease) in the overall long-term air emissions profile for the installation would be negligible.

A short-term adverse negligible impact is likely due to generation of air emissions during construction and demolition activities. The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impacts associated with the action. The ACAM report output is included as Appendix D. ACAM-estimated emissions in the initial year (i.e., construction/demolition phases) and steady-state (i.e., occupancy and on-going use/operation of the facility after construction) were compared to the most recent available Hennepin County aggregate air emissions data within USEPA's National Emissions Inventory database. The comparison is presented in the following table.

0.000

0.0000%

Pollutant	County 2014 Aggregate Emissions (tons/year)	Initial Year Action Emissions (ton/year)	Initial Year % Increase from Proposed Action	Steady State Action Emissions (ton/year)	Steady State % Increase from Proposed Action
VOC	33,283	0.673	0.0020%	0.021	0.0001%
NOx	30,487	2.563	0.0084%	0.148	0.0005%
CO	178,314	2.490	0.0014%	0.113	0.0001%
SOx	1,076	0.005	0.0005%	0.015	0.0014%
PM 10	12,856	1.509	0.0117%	0.021	0.0002%
PM 2.5	5,222	0.125	0.0024%	0.021	0.0004%
Pb	0.6	0.000	0.0000%	0.000	0.0000%

Table 3. Comparison of County Aggregate Air Emissions to Project Emissions

0.002

1,098

As shown, estimated annual air emissions increases from the proposed action would be very small fractions of county annual aggregate emissions, and would therefore not be considered regionally significant.

0.0002%

Greenhouse gas emissions associated with the proposed action, expressed as tons carbon dioxide equivalent (CO2e), are included in the estimates calculated in the ACAM report. These estimates totaled 516.5 tons CO2e emissions in the annual period during which construction and demolition operations would occur, followed by annual estimated emissions of 103.3 tons CO2e when the proposed new facility is occupied and in use. While there is no data available that directly quantifies current annual estimated emissions of tons CO2e from occupancy and use of just the existing four facilities that would be demolished, the 934 AW assumes that replacement of the four separate 1940s-era facilities with a single modern facility would result in an overall reduction in heating and cooling costs, which are the dominant factor in CO2e emissions after construction/demolition activities are complete. For calendar year 2016, MPCA reported Minnesota's total GHG emissions as 154.2 million CO2e tons. Within that context, even the temporary increase in CO2e tons during the year in which construction/demolition activities take place would be less than 0.0003% of statewide greenhouse gas emissions.

Based on the context and intensity of the likely impacts described above, no significant impacts to air quality would result from implementing Alternative 1.

Alternative 2.

NH3

Impacts from implementing Alternative 2 would be the same as from Alternative 1. Based on the context and intensity of the likely impacts described above, no significant impacts to air quality would result from implementing Alternative 2.

No Action Alternative.

No impacts to air quality, either positive or adverse, would occur if no action is taken.

3.3.3 Cumulative Impact Analysis

Alternative 1.

Based on the context and intensity of the likely impacts described previously, no significant impacts to air quality would result from implementing Alternative 1. The previous assessment of the Air Force Aerial Port Facility project identified only insignificant air quality impacts generated during construction activities. MAC's assessment of its 2019-2025 Capital Improvements Program determined that although some of the its projects may have temporary environmental effects during construction, such effects would be minimized using typical mitigation measures and best management practices, and would not constitute long-term cumulative potential effects when combined with other projects at MSP. Similar findings can be anticipated for the Navy project, due to nature of these projects and the shared location within or adjacent to the airport complex. The impacts, even when taken cumulatively, will remain insignificant.

Alternative 2.

There would be no difference between Alternatives 1 and 2 with regard to cumulative impacts.

No Action Alternative.

Since no action taken would result in no impacts, there could be no cumulative impacts.

3.4 WATER RESOURCES

3.4.1 Affected Environment

There are no water bodies, either natural or manmade, within the Area N property of MSP IAP ARS. No portion of Area N lies within a 100-year floodplain. Three water bodies are within one mile of Area N:

Mississippi River (approximately 0.85 mile east)
 Mother Lake (approximately 0.85 mile west)

Minnehaha Creek (approximately 0.90 mile north)

Area N contains no wetlands. Wetlands identified in the USFWS National Wetland Inventory in closest proximity to Area N are:

- 1.90 acre Freshwater Emergent Wetland habitat, classified as Palustrine Emergent Persistent Seasonally Flooded (PEM1C); 0.45 mile west, on the north side of Highway 62
- 0.98 acre Freshwater Emergent Wetland habitat, classified as Palustrine Emergent Persistent Temporary Flooded (PEM1A); 0.45 mile west, on the south side of Highway 62
- 1.15 acre Freshwater Emergent Wetland habitat, classified as Palustrine Emergent Persistent Temporary Flooded Excavated (PEM1Ax); 0.58 mile east, on the south side of Highway 62

These wetlands are depicted on a map included in Appendix A.

Storm water runoff from the proposed construction and demolition sites in Area N is conveyed through storm sewers that flow through a hydrodynamic separator (for reduction of total suspended solids) prior to connecting to a City of Minneapolis storm sewer at South Frontage Road, immediately north of Area N. Storm flow conveyed through the city's storm sewer system ultimately discharges to the Mississippi River at city Outfall 10-720, located near the junction of Minnehaha Creek and the Mississippi River. The 934 AW operates under National Pollutant

Discharge Elimination System Permit 0052141, issued by the Minnesota Pollution Control Agency (MPCA), which includes a requirement to maintain a Stormwater Pollution Prevention Plan.

The reach of the Mississippi River that includes city Outfall 10-720 is assigned "Assessment Unit Identification" (AUID) number 07010206-514. This 3.58-mile long reach, from Lock & Dam #1 to the Minnesota River, is part of the Mississippi River – Twin Cities watershed in Hennepin County. Minnesota's 2018 Impaired Waters List includes this AUID within Hydrologic Unit 07010206, which is listed as affected for aquatic consumption due to concentrations of mercury and PCB in fish tissue. Impaired waters in the area surrounding the project locations are depicted on a map included in Appendix A.

All wastewater from Area N is discharged through existing sanitary sewers into the Metropolitan Disposal System, and is conveyed to the Metropolitan Council's Metro Wastewater Treatment Plant located on the Mississippi River in St. Paul. The 934 AW operates under Permit 1315, issued by Metropolitan Council Environmental Services (MCES). A Capacity Demand Review conducted by MCES in 2017 determined that the 934 AW is well below its assigned Sewer Availability Charge baseline.

The system of bedrock aquifers underlying Hennepin County includes the St. Peter aquifer (a source of water for domestic and low-capacity use locally, but not considered a major source of ground water), and the Prairie du Chien Group and Jordan Sandstone, which together form the most heavily used aquifer in the county. Ground water generally flows from the highest water levels in central Hennepin County toward the Mississippi and Minnesota Rivers. According to the Minnesota Geological Survey's County Well Index database, there are no potable water supply wells present between Area N and the Mississippi and Minnesota Rivers. There are also currently no wells of any kind present within Area N.

All potable water for Area N is provided through connection to the City of Minneapolis Public Works Water Treatment & Distribution Service.

3.4.2 Environmental Impacts

Alternative 1.

No impacts, either positive or adverse, are likely with regard to floodplains or wetlands, since neither are present in Area N and there is no discharge from Area N to any wetland. No impacts, either positive or adverse, are likely with regard to groundwater, since commercial construction/demolition activities on the scale proposed do not normally involve operations that would be expected to introduce contaminants to groundwater.

A short-term adverse negligible impact is likely due to exposure of a construction site to precipitation. Construction Activity occurring as part of the proposed action would not result in land disturbance of equal to or greater than one acre. Standard erosion and sediment controls for a commercial construction site would be expected to minimize discharge of sediment in site runoff. Storm water runoff from this portion of Area N does flow through a permanent hydrodynamic separator prior to connection to the City of Minneapolis storm sewer system, which would also minimize discharge of sediment in storm flows.

Implementing the proposed action is unlikely to impact the impairment status of AUID 07010206-514 of the Mississippi River in any quantifiable measure.

A long-term beneficial minor impact is likely due to a net gain in pervious surfaces from the combined proposed construction and demolition actions. Construction on the Alternative 1 site would be unlikely to reduce existing pervious surfaces (turfed areas), because it is currently an

asphalt parking lot. Demolition actions would create approximately 18,500 square feet of pervious surface where impervious surface currently exists, for a net gain of approximately 18,500 square feet of pervious surface.

Based on the context and intensity of the likely impacts described above, no significant impacts to water resources would result from implementing Alternative 1.

Alternative 2.

Impacts from implementing Alternative 2 would be the same as from Alternative 1, except that there would be a smaller net gain in pervious surface. Construction on the Alternative 2 site would likely eliminate approximately 14,500 square feet of existing pervious surfaces (turfed areas), while the demolition actions would create approximately 18,500 square feet of pervious surface where impervious surface currently exists, for a net gain of approximately 4,000 square feet. Based on the context and intensity of the likely impacts described above, no significant impacts to water resources would result from implementing Alternative 2.

No Action Alternative.

No impacts to water resources, either positive or adverse, would occur if no action is taken.

3.4.3 Cumulative Impact Analysis

Alternative 1.

Based on the context and intensity of the likely impacts described previously, no significant impacts to water quality would result from implementing Alternative 1. The previous assessment of the Air Force Aerial Port Facility project identified only negligible water quality impacts generated during construction activities. MAC's assessment of its 2019-2025 Capital Improvements Program determined that although some of the its projects may have temporary environmental effects during construction, such effects would be minimized using typical mitigation measures and best management practices, and would not constitute long-term cumulative potential effects when combined with other projects at MSP. Similar findings can be anticipated for the Navy project, due to nature of these projects and the shared location within or adjacent to the airport complex. The impacts, even when taken cumulatively, will remain insignificant.

Alternative 2.

There would be no difference between Alternatives 1 and 2 with regard to cumulative impacts.

No Action Alternative.

Since no action taken would result in no impacts, there could be no cumulative impacts.

3.5 SAFETY AND OCCUPATIONAL HEALTH

3.5.1 Affected Environment

Asbestos-containing building materials are present within three of the existing buildings proposed for demolition (725, 727, and 852). These materials are all currently categorized as non-friable.

Hennepin County is categorized by U.S. Environmental Protection Agency as "Radon Zone 1", which indicates predicted average indoor radon screening levels greater than 4 picocuries/liter.

3.5.2 Environmental Impacts

Alternative 1.

A long-term beneficial negligible impact would occur with regard to asbestos-containing building materials. Transition of administrative personnel from existing facilities proposed for demolition into a newly constructed facility without any asbestos-containing building materials present would eliminate any future potential for occupational exposures to such materials. As a regulatory condition prior to facility demolition, asbestos-containing building materials present in Buildings 725, 727, and 852 would be abated.

No impacts, either positive or adverse, are likely with regard to indoor radon exposure.

No impacts, either positive or adverse, are likely with regard to any other safety or occupational health concerns, because the proposed new facility would house administrative functions, and would not include any industrial operations.

Based on the context and intensity of the likely impacts described above, no significant impacts to safety and occupational health would result from implementing Alternative 1.

Alternative 2.

Impacts from implementing Alternative 2 would be the same as from Alternative 1. Based on the context and intensity of the likely impacts described above, no significant impacts to safety and occupational health would result from implementing Alternative 2.

No Action Alternative.

A long-term adverse negligible impact could occur with regard to asbestos-containing building materials if no action is taken. Administrative personnel continuing to work in Buildings 725, 727, and 852 would have the potential for occupational exposures to asbestos-containing building materials, if such materials were degraded or damaged in the future. A more likely adverse impact would be a short-term disruption of workplace availability due to abatement operations that would become necessary in the event of the asbestos-containing building materials becoming degraded. Based on the context and intensity of the likely impacts described above, no significant impacts would occur if no action occurs.

3.5.3 Cumulative Impact Analysis

Alternative 1.

Based on the context and intensity of the likely impacts described previously, long-term beneficial negligible safety impacts would result from implementing Alternative 1. The previous assessment of the Air Force Aerial Port Facility project identified no potential safety or occupational health impacts. MAC's assessment of its 2019-2025 Capital Improvements Program determined that temporary environmental effects during construction would not constitute long-term cumulative potential effects when combined with other projects at MSP. Similar findings can be anticipated for the Navy project, due to nature of these projects and the shared location within or adjacent to the airport complex. The impacts, even when taken cumulatively, will remain insignificant.

Alternative 2.

There would be no difference between Alternatives 1 and 2 with regard to cumulative impacts.

No Action Alternative.

Only negligible long-term adverse impacts were identified for "no action." Based on the absence of identified negative impacts for the other listed projects in the region of influence, there could be no cumulative impacts.

3.6 HAZARDOUS MATERIALS / WASTE

3.6.1 Affected Environment

The existing buildings proposed for demolition do not currently house any industrial operations or work functions that involve use of hazardous/toxic chemicals, nor are hazardous materials stored within them. Such operations and functions are also not known to have been conducted in any of them in the past. There are no existing or abandoned storage tanks present at or within these buildings, and no record of such tanks ever being present at or within them in the past. Active fuel storage tanks in relative proximity to the construction or demolition sites are as follows:

- MPCA Tank Site 12985, Tank 001: 550-gallon underground waste oil tank, 250 feet southwest of Building 729 demolition site.
- MPCA Tank Site 12987, Tank 004: 10,000-gallon underground gasoline tank, 250 feet north of Construction Site Alternative 1.
- MPCA Tank Site 12987, Tank 029: 5,000-gallon underground gasoline tank, 250 feet north of Construction Site Alternative 1.

The following Petroleum leaks have been identified, investigated, and remediated as necessary in nearby proximity (within 500 feet) of the proposed construction and demolition sites.

- MPCA Leak #LS0004790: 480 feet northeast of Construction Site Alternative 1. Petroleum contaminated soil encountered during removal of a 500-gallon underground storage tank that had stored diesel fuel. MPCA closed the release site file on 23 December 1993.
- MPCA Leak #LS0005652: 250 feet north of Construction Site Alternative 1. Petroleum contaminated soil encountered during removal of two 10,000-gallon underground storage tanks storing gasoline and diesel fuel. MPCA closed the release site file on 7 October 1993.
- MPCA Leak #LS0008347: 250 feet north of Construction Site Alternative 1. Failed leak detection test investigated and determined to be equipment failure, with no actual petroleum release. MPCA closed the release site file on 21 August 1995.
- MPCA Leak #LS0008081: 450 feet south of Construction Site Alternative 2. Petroleum release occurred during removal of an oil-water separator tank. MPCA closed the release site file on 18 August 1995.
- MPCA Leak #LS0016729: 250 feet southwest of Building 729 demolition site. Diesel Range Organics detected in a groundwater sample collected during investigation of an in-ground hydraulic lift system inside a building. MPCA closed the release site file on 16 February 2007.

Hazardous waste has not been generated or accumulated in any of the buildings proposed for demolition. The functions of the organizations that would be relocated to a proposed new facility would remain administrative in nature. Industrial/hazardous waste investigation or remediation has not been required on the sites proposed for construction and demolition.

3.6.2 Environmental Impacts

Alternative 1.

The existing facilities proposed for demolition have no current or past industrial operations or work functions involving hazardous/toxic chemicals, no hazardous waste generation or accumulation, and no active industrial/hazardous waste investigation or remediation sites in close proximity. The proposed new facility would have the same characteristics.

Waste construction and demolition (C&D) materials are generated when new structures are built and when existing structures are demolished. USEPA estimates of C&D amounts indicate that non-residential construction generates an average of 4.34 pounds per square foot, while non-residential demolition generates an average of 158 pounds per square foot. Using these values, the construction element of the proposed action can be expected to generate approximately 49 tons of construction waste, and the demolition element of the proposed action can be expected to generate approximately 2,376 tons of demolition waste. Studies conducted on the composition and management of C&D waste in Minnesota found that C&D waste contains an average of 33.9% materials that are typically recycled/reused (asphalt shingles/roofing materials; concrete; metals; carpet/textiles). It can therefore be expected that the proposed action would result in approximately 1,603 tons of C&D wastes disposed into properly permitted landfills and 822 tons of C&D waste recycled.

Data published by Hennepin County on the tonnage of C&D waste as reported to MPCA from 24 permitted facilities in the Twin Cities Metro Area during 2013 indicated that 568,400 tons of C&D waste was disposed and 242,400 tons of C&D waste was recycled. Assuming these values represent typical annual tonnages, then the estimated C&D waste that may be generated from the proposed project would constitute less than 0.3% of C&D wastes delivered to facilities in the Twin Cities Metro Area during the project period.

During construction and operation of the project, vehicles and construction equipment containing petroleum-based fuels and operational fluids will be present. On-site storage of diesel fuel could potentially occur, in a temporary storage tank of up to 250 gallons, for refueling construction equipment. Such storage and refueling would only be allowed by the 934 AW if adequate secondary containment is provided by the construction contractor. Leaks or spills from equipment breakdowns, such as a broken hydraulic line, could potentially occur and would introduce contaminants into soil during construction. Any such spills would be reported to MPCA and would be cleaned up by the construction contractor.

Hazardous waste potentially generated during the construction activities would include typical construction materials (adhesives, architectural paints), and would be generated in minimal amounts (i.e., quantities below the threshold for "Minimal Quantity Generator" status). Hazardous waste would not be generated from demolition operations. Small quantities of universal waste (fluorescent lamps) and electronic waste (fire/smoke detectors, heating/cooling control boards, emergency lighting systems, etc.) and any obsolete stand-alone appliances present in the facilities would be removed and recycled prior to demolition commencing. Additionally, cooling system refrigerants would be removed and reused or reclaimed prior to demolition.

An emergency generator for the new building would include an integral double-wall belly tank holding up to 425 gallons of diesel fuel. Fuel deliveries and transfers to the tank would typically occur less frequently than once per year.

Based on these factors and analysis, impacts related to hazardous materials/waste that would result from implementing Alternative 1 are negligible, and impacts related to C&D waste generation and disposal would also be negligible.

Alternative 2.

Based on the same factors stated for Alternative 1, impacts related to hazardous materials/waste that would result from implementing Alternative 2, would be negligible, and impacts related to C&D waste generation and disposal would be negligible.

No Action Alternative.

Based on the factors for the existing facilities as stated above for Alternative 1, no impacts to hazardous materials/waste, either positive or adverse, would result if no action occurs. Additionally, there would be no generation of C&D waste if no action occurs.

3.6.3 Cumulative Impact Analysis

Alternative 1.

Based on the context and intensity of the likely impacts described previously, only negligible impacts related to hazardous materials/waste or C&D waste would result from implementing Alternative 1. The previous assessment of the Air Force Aerial Port Facility project identified only negligible waste impacts generated during construction activities. MAC's assessment of its 2019-2025 Capital Improvements Program determined that although some of the its projects may have temporary environmental effects during construction, such effects would be minimized using typical mitigation measures and best management practices, and would not constitute long-term cumulative potential effects when combined with other projects at MSP. Similar findings can be anticipated for the Navy project, due to nature of these projects and the shared location within or adjacent to the airport complex. The impacts, even when taken cumulatively, will remain insignificant

Alternative 2.

There would be no difference between Alternatives 1 and 2 with regard to cumulative impacts.

No Action Alternative.

Since no action taken would result in no impacts, there could be no cumulative impacts.

3.7 BIOLOGICAL / NATURAL RESOURCES

3.7.1 Affected Environment

Area N is a fully developed property, similar to an industrial/business park or commercial campus. Since 1992, the MSP IAP ARS installation has been categorized by the Air Force as "Category II", which means that significant natural resources are absent. There is no hunting, fishing or other natural resource-based outdoor recreation activity in Area N. There are no unimproved lands or forest lands present. There are no important or unique biological resources present, such as habitats that provide essential loafing, nesting, or foraging areas for migratory birds, bats, or other wildlife protected by state or federal law. Flora present at the sites proposed for construction and

demolition consists of turfed areas maintained as lawns; a minimal amount of landscaped shrubs around building perimeters, and various individual common deciduous and coniferous trees. The only type of fauna present on or near the sites at any time are occasional common species that may be found throughout most, if not all, Twin Cities urban/suburban areas (such as gray squirrel, cottontail rabbit, thirteen-lined ground squirrel, common unprotected birds).

The USFWS "Information for Planning and Consultation" (IPaC) online tool was used to generate a list of "trust resources" (species and resources such as critical habitat under USFWS jurisdiction) that are known or expected to be on or near the project area. No critical habitats were identified in the IPaC report. Three Threatened and Endangered Species were reported as potentially present in the area of the proposed project site:

Northern Long-eared Bat *Myotis septentrionalis* Rusty Patched Bumble Bee *Bombus affinis* Higgins Eye (pearlymussel) *Lampsilis higginsii*

Fourteen species of migratory birds were identified in the IPaC report, either because they appear on the USFWS Birds of Conservation Concern list or warrant special attention in the area of the proposed project.

A "Natural Heritage Review" was requested from DNR, to identify any known occurrences of rare species or other significant natural features within an approximate one-mile radius of the proposed project. DNR's review process employs the state NHIS, a collection of databases that contains information about Minnesota's rare natural features, maintained by DNR's Division of Ecological and Water Resources. The NHIS is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. DNR's response did not identify any rare species or significant natural features.

DNR's Minnesota County Biological Survey geospatial data on "Native Plant Communities" and "Sites of Biodiversity Significance" was used to determine the proximity of such features to the project site. The closest such features consist of a small (approximately 2-acre) isolated upland prairie system/mesic prairie along the north side of Minnesota Highway 62, 0.3 to 0.5 miles from the project site; and an approximately 6-acre tract identified as an area of "moderate biodiversity significance", located along the south side of Minnesota Highway 62 near the Hiawatha Avenue exit, also 0.3 to 0.5 miles from the project site. This feature appears to include the 1.15-acre PEM1Ax wetland described in the water resources section. Maps depicting native plant communities and areas of biodiversity significance within one mile of Area N are provided in Appendix A.

Natural resource inventory reports published by Hennepin County document land cover types as categorized under the Minnesota Land Cover Classification System. Area N and the nearby surrounding areas of Minneapolis and Fort Snelling/MSP Airport are categorized as predominantly "Artificial Surfaces and Associated Areas", interspersed with tracts of "Planted or Cultivated Vegetation".

3.7.2 Environmental Impacts

Alternative 1.

DNR Natural Heritage Review correspondence #ERDB 20190289 reported that the proposed project is not believed to negatively affect any known occurrences of rare features.

Determinations were made by the 934 AW that the proposed action is "not likely to adversely affect" each of the three Threatened and Endangered Species identified in the USFWS' IPaC report. Informal Consultation with the USFWS Minnesota-Wisconsin Ecological Services Field

Office was then conducted, as required by Section 7(a)(2) of the Endangered Species Act. The USFWS response indicated that "no effect" determinations were appropriate for both Rusty Patched Bumble Bee and Higgins Eye (pearlymussel). Additionally, as recommended by USFWS, the "Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency Determination Key" within IPaC was used as the basis for the determination for that species. The species determination generated in IPaC was that the project is "not likely to adversely affect" Northern Long-eared Bat. USFWS noted that the 4(d) Rule for this species provides an exemption for tree related activities (i.e., tree removal) if they occur outside of 150-feet from a known roost tree, or 0.25 miles from a known hibernacula. This project is outside of both criteria, therefore, impacts to the species can be documented as "may affect", but incidental take of the species is not prohibited.

Regarding the fourteen species of migratory birds identified in the IPaC report as either Birds of Conservation Concern or warranting special attention in the area of the proposed project, a review of habitat and nesting preferences for each species was performed using online resources recommended in the IPaC report. Habitat and nesting site preferences described for each species are inconsistent with conditions present at the proposed project site. None of the fourteen species is likely to breed, nest, or forage on or in close proximity to the site. Construction/demolition activities conducted as part of the proposed action are therefore very unlikely to have any impact on any of these bird species.

Eleven (11) mature trees in close proximity to Buildings 725, 729 and 852 may need to be removed for demolition of those facilities. Tree species include Red Cedar (6); Norway Maple (3); and Scotch Pine (2). Removal of these trees would be a negligible impact.

Based on the context and intensity of the likely impacts described above, no significant impacts to biological/natural resources would result from implementing Alternative 1.

Alternative 2.

Impacts from implementing Alternative 2 would be nearly identical to Alternative 1, except that construction on the Alternative 2 site would likely eliminate approximately 14,500 square feet of turfed area, and removal of additional mature trees is also likely to be necessary. Five (5) flowering crab apple trees would be removed from the construction site. Four (4) other mature trees may need to be removed from the site perimeter, including Honey Locust (1) and Marshall Ash (3). Area N is within the current State Formal Quarantined Area for Emerald Ash Borer (EAB), as declared by the Minnesota Department of Agriculture (MDA). Although EAB infestations have not been found in Area N, infestations have been identified at locations in the City of Minneapolis within 0.2 miles of the proposed project sites. If removed, all parts of the Ash trees would be subject to the state quarantine prohibition on movement out of the quarantined area. This circumstance would represent a negligible impact, as MDA has identified multiple Ash Tree waste disposal sites within Hennepin County. Removal of the other trees and elimination of the turfed area would also be negligible impacts.

Based on the context and intensity of the likely impacts described above, no significant impacts to biological/natural resources would result from implementing Alternative 2.

No Action Alternative.

No impacts to biological/natural resources, either positive or adverse, would result if no action occurs.

3.7.3 Cumulative Impact Analysis

Alternative 1.

Based on the context and intensity of the likely impacts described previously, only negligible impacts to biological/natural resources would result from implementing Alternative 1. The previous assessment of the Air Force Aerial Port Facility project identified no negative impacts to biological/natural resources. MAC's assessment of its 2019-2025 Capital Improvements Program determined that although some of the its projects may have temporary environmental effects during construction, such effects would be minimized using typical mitigation measures and best management practices, and would not constitute long-term cumulative potential effects when combined with other projects at MSP. Similar findings can be anticipated for the Navy project, due to nature of these projects and the shared location within or adjacent to the airport complex. The impacts, even when taken cumulatively, will remain insignificant.

Alternative 2.

There would be no difference between Alternatives 1 and 2 with regard to cumulative impacts.

No Action Alternative.

Since no action taken would result in no impacts, there could be no cumulative impacts.

3.8 CULTURAL RESOURCES

3.8.1 Affected Environment

There are no districts, sites, buildings, structures, or objects present within Area N that meet criteria to be eligible for the National Register of Historic Places. All buildings within Area N that are 50 or more years old were previously evaluated and determined not to meet National Register criteria, including the specific buildings proposed for demolition (725, 727, 729, and 852). Concurrence from the SHPO is documented.

No known prehistoric or historic archaeological sites lie within Area N, nor are there any Native American burial sites, traditional cultural properties, or sacred sites present or in close proximity to MSP IAP ARS. A landform (hill), known as Taku Wakan Tipi/Morgan's Mound, which extends from the City of Minneapolis onto a portion of Area N, was previously assessed and determined to not meet criteria for National Register eligibility as a Traditional Cultural Property. Due to prior development of the specific sites proposed for construction and demolition, the potential for encountering human remains is negligible.

The nearest National Register properties are the Fort Snelling Historic District / National Historic Landmark, located approximately 0.75 mile to the east/southeast of the project location, and the Minnesota Soldiers' Home Historic District, approximately 1.0 mile to the north/northeast of the project location. The Old Fort Snelling State Historic District generally coincides with the Fort Snelling Historic District. Additionally, although not National Register listed, the SHPO's Minnesota Statewide Inventory Database identifies Morris Park Elementary School in Minneapolis as a "Considered Eligible Finding", indicating that "a federal agency has recommended that a property is eligible for listing in the National Register and MN SHPO has accepted the recommendation for the purposes of the Environmental Review Process. These properties need to be further assessed before they are officially listed in the National Register." This school is approximately 0.3 miles north of the project location.

Based on characteristics of the proposed action, the distance to these cultural resources, and the nature of the existing land use / human activity between the project site and the National Register

properties, state districts, and Morris Park Elementary School, they are all not considered to be within the proposed action's "Area of Potential Effect".

3.8.2 Environmental Impacts

Alternative 1.

Since Area N contains no historic properties, no archeological resources, and no cultural resources related to Native American heritage, and since the nearest National Register properties are at least 0.75 miles from Area N with considerable development existing between, no impacts, either positive or adverse, would result from implementing Alternative 1.

Alternative 2.

Based on the same factors stated for Alternative 1, no impacts with regard to cultural resources, either positive or adverse, would result from implementing Alternative 2.

No Action Alternative.

Based on the same factors stated for Alternative 1, no impacts with regard to cultural resources, either positive or adverse, would result if no action occurs.

3.8.3 Cumulative Impact Analysis

Alternative 1.

As described previously, no impacts to cultural resources would result from implementing Alternative 1. Therefore, there could be no cumulative impacts.

Alternative 2.

There would be no difference between Alternatives 1 and 2 with regard to cumulative impacts.

No Action Alternative.

Since no action taken would result in no impacts, there could be no cumulative impacts.

3.9 GEOLOGY/ SOILS / TOPOGRAPHY

3.9.1 Affected Environment

Surficial Geology for Area N consists of Middle and Upper Terrace deposits of sand, gravelly sand, loamy sand, with underlying bedrock. Bedrock Geology consists of Platteville and Glenwood Formations and St. Peter Sandstone. Depth to bedrock is categorized in the 0-50 and 51-100 foot ranges

Soils for most of Area N (including the proposed construction sites and the locations of Buildings 725, 727, and 852) are classified as U4A—Urban land-Udipsamments (cut and fill land). The general description for this class is "urban land, consisting mainly of industrial parks, office buildings, warehouses, and railroad yards and covered by impervious surfaces". The portion of Area N where Building 729 is located is classified as D34B—Urban land-Hubbard complex. The general description for this class is "urban land that consists mainly of residential areas, covered by impervious surfaces, mostly disturbed to some degree by construction activity".

The topography of Area N is generally flat, with an area of higher elevation to its northeast extent. Elevation ranges from 820 to 830 feet above mean sea level.

3.9.2 Environmental Impacts

Alternative 1.

Geology, soil types, and topography would not change if Alternative 1 is implemented. No impacts, either positive or adverse, would result from implementing Alternative 1.

Alternative 2.

Geology, soil types, and topography would not change if Alternative 2 is implemented. No impacts, either positive or adverse, would result from implementing Alternative 2.

No Action Alternative.

Geology, soil types, and topography would not change if no action is implemented. No impacts, either positive or adverse, would result would result if no action occurs.

3.9.3 Cumulative Impact Analysis

Alternative 1.

As described previously, no impacts to geology, soils or topography would result from implementing Alternative 1. Therefore, there could be no cumulative impacts.

Alternative 2.

There would be no difference between Alternatives 1 and 2 with regard to cumulative impacts.

No Action Alternative.

Since no action taken would result in no impacts, there could be no cumulative impacts.

3.10 SOCIO-ECONOMIC RESOURCES / ENVIRONMENTAL JUSTICE

3.10.1 Affected Environment

Area N is located within Census Tract 121.02, Hennepin County, Minnesota. Approximately 70% of the area of Census Tract 121.02 is non-residential. This includes military property, airport property, one charter school, two churches, seven commercial properties, and the state highway that bisects this tract. The remainder is residential housing. The following demographic and socioeconomic data was recorded for this tract in the 2010 decennial census:

- 2,819 Total population
- 22% Minority (Single-race other than "white", and/or "Two or More" races)
- 11% Hispanic or Latino of any race
- 20% Aged 19 and younger
- 11% Aged 65 and older
- 85% Residing in owner-occupied housing
- 2% Households below the poverty level

Based on this data, the residential population potentially affected by the proposed action can be characterized as predominantly not minority; predominantly not children or elderly; and predominantly not low-income.

U.S. Department of Labor's Bureau of Labor Statistics reported total nonfarm employment in the Minneapolis area for March 2019 as 2,030,200, including 79,400 employed in "Mining, logging and construction."

Minnesota Department of Employment and Economic Development reported the Minneapolis-St. Paul Gross Domestic Product as \$260 billion as of 2017, ranking 12th among the nation's 30 largest metropolitan areas. Data as of 2018 was not available for review.

3.10.2 Environmental Impacts

Alternative 1.

A short-term positive negligible impact to the local economy is likely if Alternative 1 is implemented. Current total programmed cost of the proposed project is \$9.5 million. This amount would be less than 0.0004% of the Minneapolis-St. Paul Gross Domestic Product. Additionally, assuming short-term full-time employment (no more than one year) for up to 50 personnel to work on the proposed project (a high estimate), the temporary jobs generated would represent less than 0.1% of the Minneapolis area employment in "Mining, logging and construction".

With regard to assessing "Environmental Justice" considerations (i.e., addressing the potential effects of the alternatives on minorities and low-income populations and communities), the most recent decennial census data indicated that the residential population potentially affected by the proposed action is predominantly not minority; predominantly not children and elderly; and predominantly not low-income. Implementing the proposed action would therefore not have potential to cause disproportionately high and adverse human health or environmental effects on minority populations, low-income populations or children and elderly in the local off-base community.

Based on the context and intensity of the likely impacts described above, no significant impacts to socioeconomic resources/environmental justice would result from implementing Alternative 1.

Alternative 2.

Impacts from implementing Alternative 2 would be identical to Alternative 1. Based on the context and intensity of the likely impacts described above, no significant impacts to socioeconomic resources/environmental justice would result from implementing Alternative 2.

No Action Alternative.

No impacts to socioeconomic resources/environmental justice, either positive or adverse, would result if no action occurs.

3.10.3 Cumulative Impact Analysis

Alternative 1.

Only short-term positive negligible impact to the local economy is likely if Alternative 1 is implemented. Therefore, any cumulative impacts could not be significantly negative impacts.

Alternative 2.

There would be no difference between Alternatives 1 and 2 with regard to cumulative impacts.

No Action Alternative.

Since no action taken would result in no impacts, there could be no cumulative impacts.

3.11 TRANSPORTATION RESOURCES

3.11.1 Affected Environment

Vehicular access to Area N occurs via the 34th Avenue exit from Minnesota Highway 62, also commonly known as the "Crosstown". Data on Annual Average Daily Traffic (AADT) and Heavy Commercial Annual Average Daily Traffic (HCAADT) is available from Minnesota Department of Transportation for two segments of Highway 62 between 28th Avenue and Minnehaha Avenue. AADT an estimate of the total number of vehicles of all types using a specific segment of roadway (both directions) on any given day of the year. HCAAT is an estimate of the total number of vehicles with at least two axles and six tires, using a specific segment of roadway (in both directions) on any given day of the year. Official data for 2017 estimated AADT of 72,000 and 65,000 for the two referenced segments of Highway 62. HCAADT was estimated at 1,250 and 1,500. 2016 AADT data is also available for the segment of 34th Avenue immediately adjacent to Highway 62, and the segment of 58th Street from the 34th Avenue exit off westbound Highway 62 to 34th Avenue. Those AADT values were 6,800 and 6,900 respectively. No HCAADT values are available for 34th Avenue or 58th Street.

3.11.2 Environmental Impacts

Alternative 1.

During construction and demolition activities, temporary increases in traffic would occur on Highway 62, on the segment of 58th Street from the 34th Avenue exit off westbound Highway 62 to 34th Avenue, and on the segment of 34th Avenue adjacent to Highway 62.

For the purpose of analyzing the impact of temporary traffic increases, an average daily temporary labor force of 50 individuals commuting to and from Area N to perform construction or demolition operations is assumed. A daily average of 20 heavy duty vehicle making trips to and from Area N in support of those operations is also assumed. Both values are intentionally higher than probable actual numbers would be. The projected temporary increases to AADT and HCAADT would be:

Highway 62 0.19% to 0.22% increase in AADT 2.67% to 3.20% increase in HCAADT

2.01 /0 to 5.20 /0 increase in FIOAAD

58th Street 2.06% increase in AADT

34th Avenue 2.02% increase in AADT

These are negligible temporary increases, which would not be likely to cause a noticeable increase in traffic congestion, nor require increases in road/highway maintenance activity.

Long term increase in traffic volumes would not result from implementing the proposed action, because the action does not include any changes to permanent manning numbers following consolidation of personnel from the four demolished facilities into one new facility.

Based on the context and intensity of the likely impacts described above, no significant impacts to transportation would result from implementing Alternative 1.

Alternative 2.

Impacts from implementing Alternative 2 would be identical to Alternative 1. Based on the context and intensity of the likely impacts described above, no significant impacts to transportation would result from implementing Alternative 2.

No Action Alternative.

No impacts to transportation, either positive or adverse, would result if no action occurs.

3.11.3 Cumulative Impact Analysis

Alternative 1.

Only short-term negative negligible increase to traffic volumes is likely if Alternative 1 is implemented. Two of the three projects that could potentially occur during the same time period as the proposed action would likely involve similar traffic volume increases on the exact same roadways (same context). However, applying the same intentionally high set of assumptions for the other projects would still yield potential cumulative impact that remain at a negligible intensity. Therefore, any cumulative impacts would not be significantly negative impacts.

Alternative 2.

There would be no difference between Alternatives 1 and 2 with regard to cumulative impacts.

No Action Alternative.

Since no action taken would result in no impacts, there could be no cumulative impacts.

4.0 OTHER NEPA CONSIDERATIONS

4.1 UNAVOIDABLE ADVERSE EFFECTS

This EA identifies unavoidable adverse impacts that would result from implementing the Proposed Action, and analyzes the significance of those impacts to resources and issues. 40 CFR §1508.27 specifies that a determination of significance requires consideration of context and intensity. Construction of a new MSG facility and demolition of four existing facilities would impact the local project area at MSP IAP ARS, but would not impact a wider region.

Unavoidable short-term adverse impacts of implementing the Proposed Action would include:

- Temporary increase in noise generated by the proposed demolitions
- Temporary increase in generation of fugitive air emissions during construction and demolition activities
- Temporary increase in exposure of construction site soils to precipitation
- Temporary increase in generation of construction and demolition waste
- Temporary increase in vehicular traffic on the highway and streets leading to Area N

Unavoidable long-term adverse impacts of implementing the Proposed Action would include:

- Reduction of available on-base parking
- Elimination of up to 14,500 square feet of turfed area (if Alternative 2 site is used)
- Removal of up to eleven trees for demolition of existing facilities
- Removal of up to nine trees for construction of the new facility (if Alternative 2 site is used)

These effects are considered negligible to minor, and would be confined to the immediate area. None of these impacts would require obtaining regulatory permits or approvals

4.2 RELATIONSHIP OF SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

The relationship between short-term uses and enhancement of long-term productivity from implementation of the Proposed Action is evaluated from the standpoint of short-term effects and long-term effects. Short-term effects would be those associated with the construction and demolition activities. The Proposed Action represents an enhancement of long-term productivity for administrative functions at MSP IAP ARS. The short-term negative effects during construction activities would be minor compared to the positive benefits from consolidation of administrative functions into a newly-constructed modern facility.

4.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

This EA identifies any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action if implemented. An irreversible effect results from the use or destruction of resources (e.g., energy) that cannot be replaced within a reasonable time. An irretrievable effect results from loss of resources that cannot be restored as a result of the Proposed Action. The short-term irreversible commitments of resources that would occur would include planning and engineering costs, building materials and supplies and their cost, use of energy resources during construction, labor, generation of fugitive dust emissions, and creation of temporary construction noise. The following long-term adverse impacts, while not significant, are also considered long-term irretrievable commitments of resources that would result:

- Removal of up to eleven trees for demolition of existing facilities
- Removal of up to nine trees for construction of the new facility (if Alternative 2 site is used)
- Elimination of up to 14,500 square feet of turfed area (if Alternative 2 site is used)

5.0 CONCLUSION / DETERMINATION

The analyses of the affected environment and environmental impacts of implementing either Alternative 1 (Preferred Alternative) or Alternative 2, as well as the No Action Alternative, concluded that no significant adverse effects to the following resources would result:

Land Use / Noise / Air Installation Compatible Use Zone
Air Quality
Water Resources
Safety and Occupational Health
Hazardous Materials / Waste
Biological / Natural Resources
Cultural Resources
Geology / Soils / Topography
Socioeconomic Resources / Environmental Justice
Transportation Resources

No significant adverse cumulative impacts would result from activities associated with Alternative 1 (Preferred Alternative) or Alternative 2, as well as the No Action Alternative, when considered in relation to past, present, or reasonably foreseeable future projects within the region of influence

Documentation of a "Finding of No Significant Impact" is appropriate for the proposed action.

6.0 LIST OF PREPARERS

Name/Organization	Education	Resource Area	Years of Experience
Douglas Yocum 934th Airlift Wing U.S. Air Force Reserve	BA – Urban/Rural Studies MS – Geoenvironmental Studies	Land Use / Noise / Air Installation Compatible Use Zone Air Quality Water Resources Safety and Occupational Health Hazardous Materials / Waste Biological / Natural Resources Cultural Resources Geology / Soils / Topography Socioeconomic Resources / Environmental Justice Transportation Resources	28

7.0 PERSONS AND AGENCIES CONSULTED

STATE AGENCIES		
Agency/ Organization	Mailing Address	Electronic Address (if applicable)
Department of Agriculture	Becky Balk Department of Agriculture 625 North Robert Street St. Paul, MN 55155	becky.balk@state.mn.us
Department of Commerce	Ray Kirsch Department of Commerce 85 Seventh Place East, Suite 280 St. Paul, MN 55101	raymond.kirsch@state.mn.us
Department of Health	Department of Health Environmental Health Division 625 North Robert Street St. Paul, MN 55155	health.review@state.mn.us
Department of Natural Resources	Randall Doneen Department of Natural Resources Environmental Review Unit 500 Lafayette Road St. Paul, MN 55155-4025	randall.doneen@state.mn.us
Department of Natural Resources	Lisa Joyal, Endangered Species Review Coordinator Department of Natural Resources Division of Ecological and Water Resources 500 Lafayette Road, Box 25 St. Paul, Minnesota 55155	Review.NHIS@state.mn.us
Pollution Control Agency	Dan Card Pollution Control Agency Environmental Review Unit 520 Lafayette Road N St. Paul, MN 55155	dan.card@state.mn.us
Board of Water and Soil Resources	Annie Felix-Gerth Board of Water and Soil Resources 520 Lafayette Road N St. Paul, MN 55155	annie.felix-gerth@state.mn.us
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State Archaeologist	Amanda Gronhovd Office of the State Archaeologist Fort Snelling History Center St. Paul, MN 55111-4061	amanda.gronhovd@state.mn.us
Indian Affairs Council	Melissa Cerda Indian Affairs Council 161 St. Anthony Avenue, Suite 919 St. Paul, MN 55103	melissa.cerda@state.mn.us
Minnesota Historical Society	Sarah Beimers Minnesota State Historic Preservation Office 50 Sherburne Ave, Suite 203 St. Paul, MN 55155	sarah.beimers@state.mn.us

REGIONAL AGENCIES			
Agency/ Organization	Mailing Address	Electronic Address (if applicable)	
Metropolitan Council	Review Coordinator, Local Planning Assistance Metropolitan Council 390 Robert Street N St. Paul, MN 55101-1805	reviewscoordinator@metc.state.mn.us	
Metropolitan Airports Commission	Bridget Rief, P.E., Vice President Metropolitan Airports Commission Planning & Development Division 6040 28th Avenue South Minneapolis, MN 55450	bridget.rief@mspmac.org	

FEDERAL AGENCIES		
Agency/ Organization	Mailing Address	Electronic Address (if applicable)
U.S. Fish and Wildlife Service	Project Leader U.S. Fish and Wildlife Service Minnesota-Wisconsin Field Office E.S. 4101 American Boulevard E Bloomington, MN 55425-1665	peter_fasbender@fws.gov
U.S. Army Corps of Engineers	Chad Konickson U.S. Army Corps of Engineers Regulatory Branch 180 Fifth Street East, Suite #700 St. Paul, MN 55101-1678	mvp-reg- inquiry@usace.army.mil
U.S. Environmental Protection Agency	Kenneth Westlake U.S. Environmental Protection Agency Region 5 Office of Enforcement & Compliance Assurance 77 West Jackson Boulevard Chicago, Illinois 60604	westlake.kenneth@epa.gov
U.S. Department of Transportation Federal Aviation Administration	Joshua Fitzpatrick FAA – Minneapolis Airports District Office 6020 28th Ave S, Room 102 Minneapolis, MN 55450	joshua.fitzpatrick@faa.gov

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9.0 ABBREVIATIONS AND ACRONYMNS

ACAM Air Conformity Applicability Model AICUZ Air Installation Compatible Use Zone

AQCR Air Quality Control Region

ARS Air Reserve Station

AUID Assessment Unit Identification

AW Airlift Wing

BRL Building Restriction Lines
C&D Construction and Demolition
CEQ Council on Environmental Quality
CFR Code of Federal Regulations

CO Carbon Monoxide

CO2e Carbon Dioxide Equivalent

dB DNL decibel Day-Night Average Sound Level
DNR Minnesota Department of Natural Resources

EA Environmental Assessment

EAB Emerald Ash Borer

FAA Federal Aviation Administration FONSI Finding of No Significant Impact

GPS Global Positioning System

GSF Gross Square Feet IAP International Airport

IPaC Information for Planning and Consultation

MAC Metropolitan Airports Commission
MPCA Minnesota Pollution Control Agency

MSG Mission Support Group MSP Minneapolis-St. Paul

NEPA National Environmental Policy Act

NH3 Ammonia

NHIS Natural Heritage Information System

NOA Notice of Availability

NOx Oxides of nitrogen as nitrogen dioxide

OFA Object Free Areas

Pb Lead

PLS Public Land Survey

PM 10 Particulate Matter less than 10 Microns PM 2.5 Particulate Matter less than 2.5 Microns

RPZ Runway Protection Zones

SHPO State Historic Preservation Officer SOx Oxides of sulfur as sulfur dioxide

USAF United States Air Force

USEPA U.S. Environmental Protection Agency USFWS United States Fish & Wildlife Service

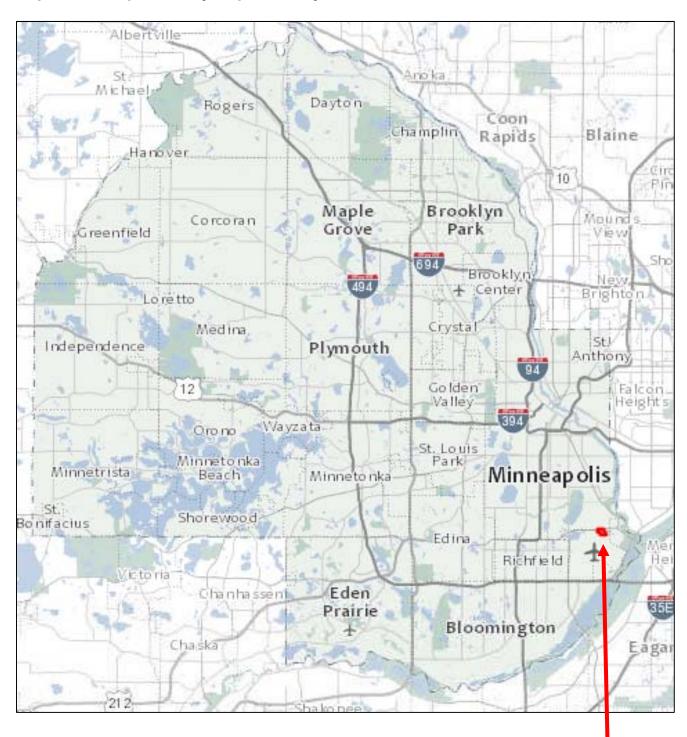
VOC Volatile Organic Compounds

APPENDIX A

Maps

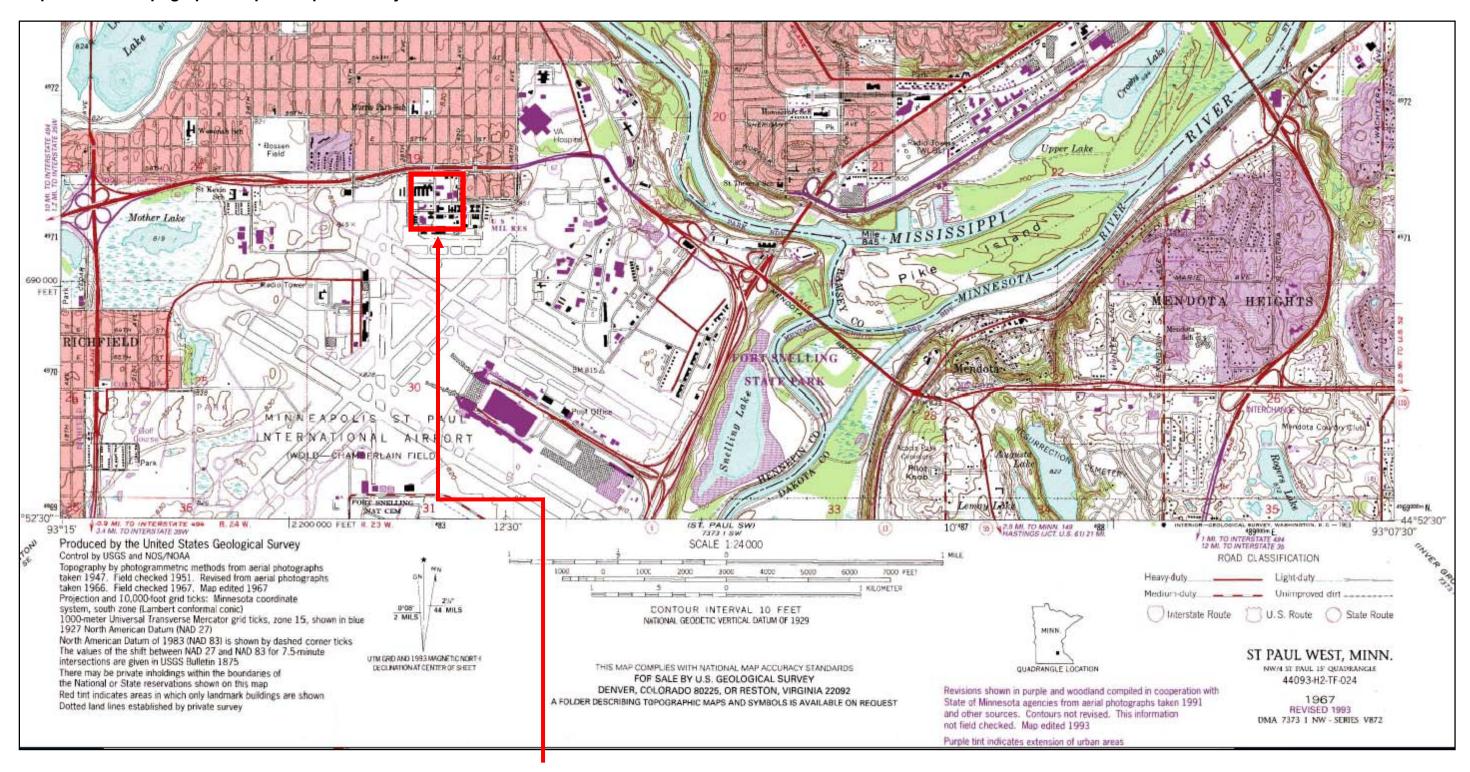
- Map 1 Hennepin County Map with Project Location
- Map 2 USGS Topographic Map Excerpt with Project Location
- Map 3 General Location of Minneapolis-St. Paul International Airport Air Reserve Station, Area N, 934th Airlift Wing, US Air Force Reserve
- Map 4 Specific Project Sites for Mission Support Group Facility Project, Area N, 934th Airlift Wing, US Air Force Reserve
- Map 5 Wetlands Near Project Location
- Map 6 Impaired Waters Near Project Location
- Map 7 Native Plant Communities and Areas of Biodiversity Significance Within One Mile of Area N

Map 1 – Hennepin County Map with Project Location



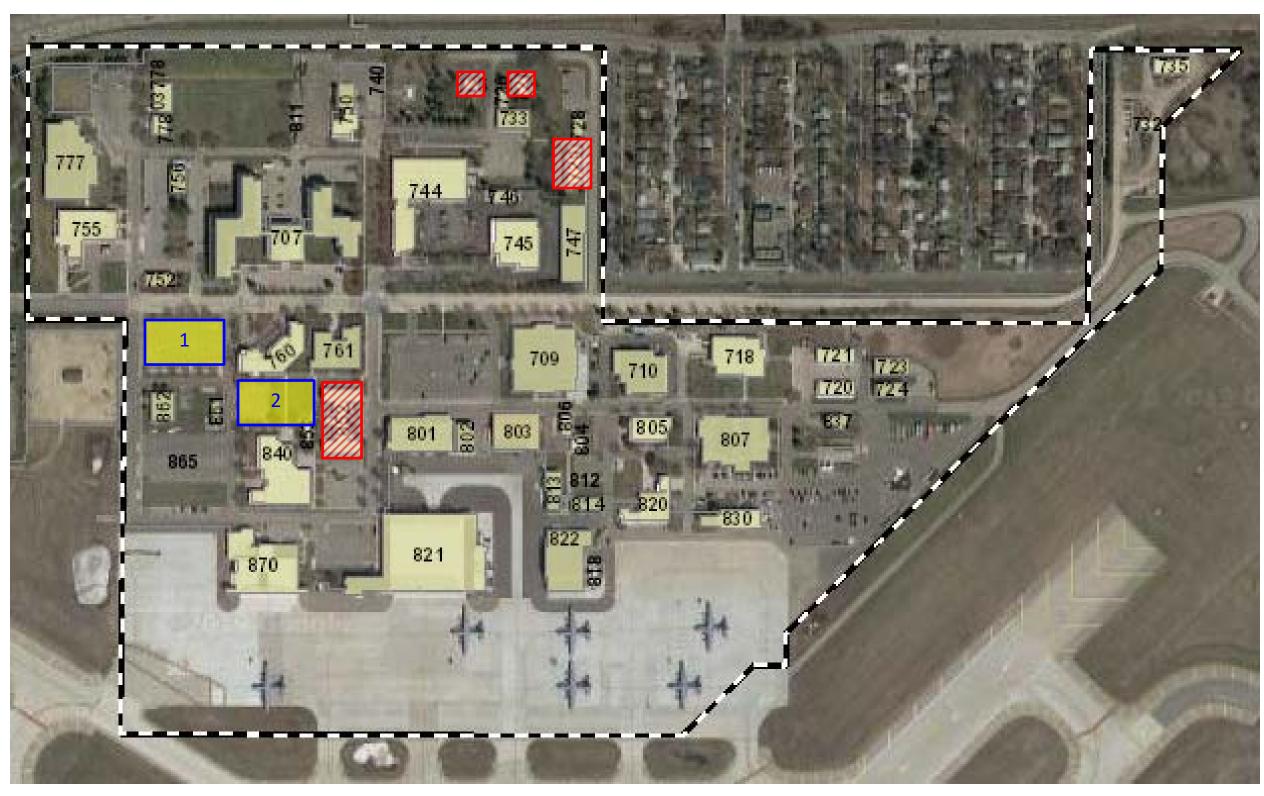
Project Location

Map 2 – USGS Topographic Map Excerpt with Project Location



Map 3 – General Location of Minneapolis-St. Paul International Airport Air Reserve Station, Area N, 934th Airlift Wing, US Air Force Reserve



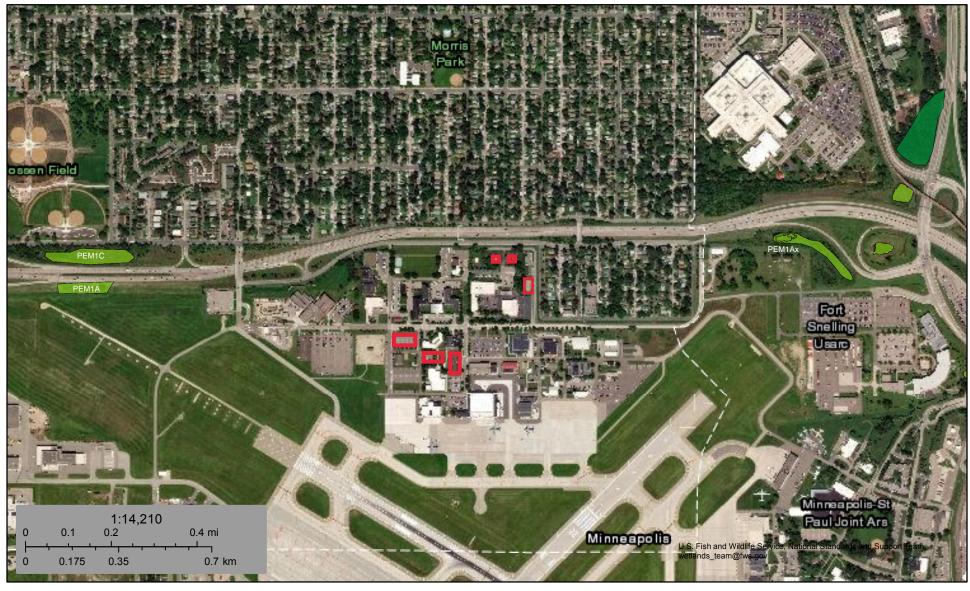


PISHA WHOLIPE SERVICE

U.S. Fish and Wildlife Service

National Wetlands Inventory

Wetlands Near Project Location



March 15, 2019

Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

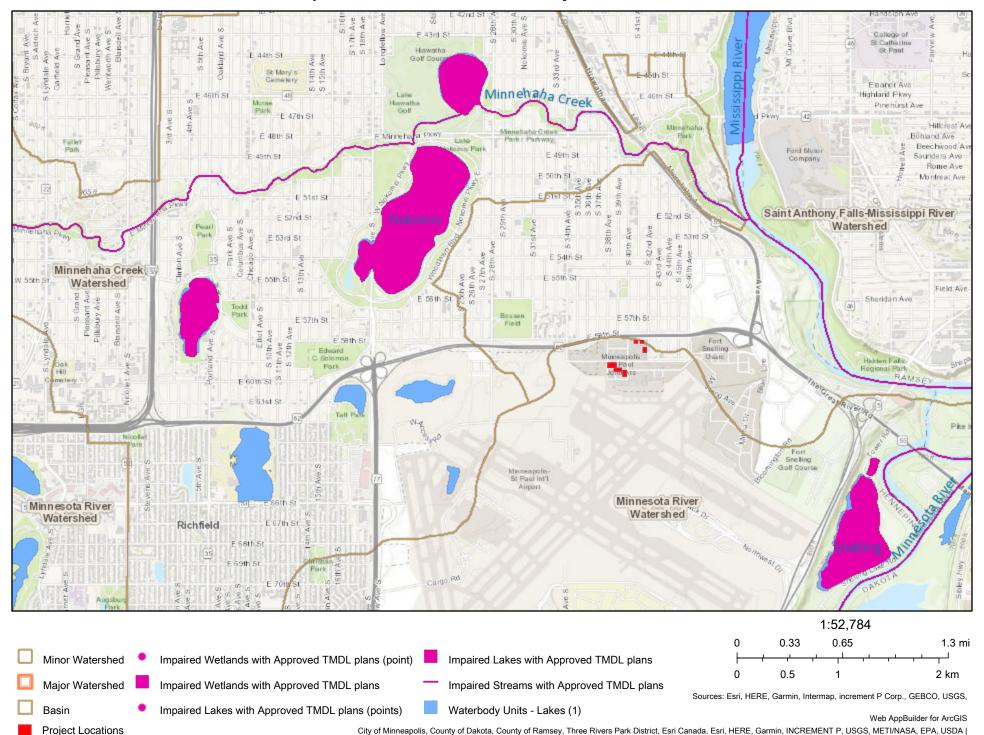
Other

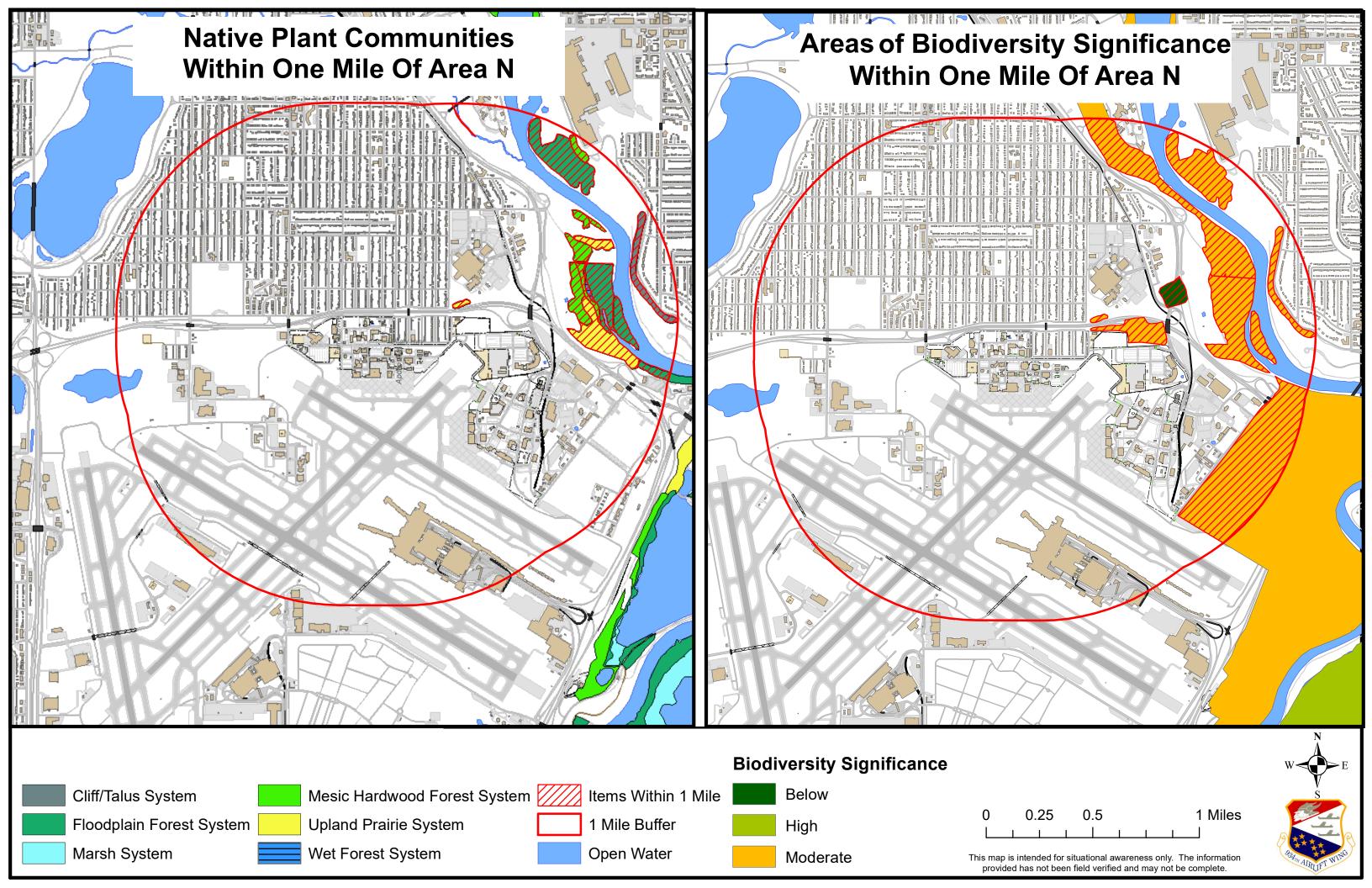
Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Project Sites

Impaired Waters Near Project Location





APPENDIX B

Notice of Availability

NOTICE OF AVAILABILITY

DRAFT ENVIRONMENTAL ASSESSMENT (EA) AND FINDING OF NO SIGNIFICANT IMPACT (FONSI).

The public is hereby notified of the availability of a Draft EA / FONSI prepared by the 934th Airlift Wing, U.S. Air Force Reserve. The Draft EA analyzes potential environmental impacts associated with construction of a new "Mission Support Group Facility", and demolition of four sub-standard facilities at Minneapolis-St. Paul International Airport Air Reserve Station in Hennepin County, Minnesota. The Draft EA/FONSI is available at Hennepin County Library – Minneapolis Central, Government Documents – 2nd Floor, 300 Nicollet Mall, Minneapolis, MN 55401. It is also available for download on the following website: www.minneapolis.afrc.af.mil. Written comments may be sent to: 934th Airlift Wing, Building 744 CEV, Attn: Douglas Yocum, 760 Military Highway, Minneapolis, MN 55450-2100, or by email to douglas.yocum@us.af.mil. The public comment period for the Draft EA/FONSI ends 30 days from the publication of this notice.

Copy of published Notice and Affidavit of Publication to be included in Final EA

APPENDIX C

Interagency Coordination and Public Participation

NO STAPLE	S
DIFASE	



	For Agency Use Only:		#Sec Contact Rqsted?
7	Received Due	Inv	#EOs Survey Rqsted?
01	Search Radiusmi. L / I / D EM	Map'd	#Com
7	NoR / NoF / NoE / Std / Sub Let	Log out	Related ERDB#

NATURAL HERITAGE INFORMATION SYSTEM (NHIS) DATA REQUEST FORM

TOTAL RESOURCES	Please read the instructions on page 3 before filling out the form. Thank you	ηį
WHO I	S REQUESTING THE INFORMATION?	
r. Name	and Title Douglas Yocum, Environmental Flight Chief	
	cy/Company U.S. Air Force Reserve, 934th Airlift Wing	
Mailir Addre	ng pess 760 Military Highway, Bldg 744 CEV, Minneapolis MN 55450-210	00
Phone	(Street) (City) (State) (Zip Code) e 612-713-1955 e-mail douglas.yocum@us.af.mil Responses will be sent via If you prefer US Mail chec	a email. 🦳
THIS II	NFORMATION IS BEING REQUESTED FOR A:	
	Federal EIS State EIS Local Government Permit Research Project	☐ BER
	NEPA Checklist Other (describe)	
1) Enc 2) Ple	Council (L-SOHC), Conservation Partners Legacy (CPL), or Legislative-Citizen Commission on Min Resources (LCCMR). MATION WE NEED FROM YOU: close a map of the project boundary/area of interest (topographic maps or aerial photos are presase provide a GIS shapefile* (NAD 83, UTM Zone 15N) of the project boundary/area of interest the following locational information* (attach additional sheets if necessary):	ferred).
3) E13	t the following focutional information (attach additional sheets if necessary).	For Agency Use:
Agency Use: ion / MBS Status	County Township # Range # Section(s) (please list all sections)	TRS Confirmed
	Hennepin 28 23W 19	
4) Ple	ase provide the following information (attach additional sheets if necessary):	
Project Name: Environmental Assessment - Construct Mission Support Group Fac		′
Projec	et Proposer: U.S. Air Force Reserve, 934th Airlift Wing	
Descri	ption of Project (including types of disturbance anticipated from the project):	
	oosed project consists of constructing one new two-story administrative building ned usable space totaling 22,575 square feet, on currently developed land on a	

Proposed project consists of constructing one new two-story administrative building, with finished usable space totaling 22,575 square feet, on currently developed land on a military installation adjacent to the north side of Minneapolis-St. Paul International Airport. Parcel selected for construction site will be between 30,000 and 46,000 square feet. Project will also include demolishing four existing outdated 1940s-era facilities. Disturbance anticipated from the project consists of construction site excavations for building footings and connection to existing utilities; removal of some areas landscaped lawn; and removal of some existing trees.

Describe	e the existing land use of the project site. What types of land cover / habitat will be impacted by the proposed
project?	Existing military aviation/training complex. Land cover consists of lawn and landscaped areas that would be typically found around commercial buildings in an urban industrial/commercial business campus. A few trees are present as part of the landscaping of the site.
	waterbodies (e.g., rivers, intermittent streams, lakes, wetlands) that may be affected by the proposed project, and how they may be impacted (e.g., dewatering, discharge, riverbed disturbance).
Not ap	oplicable. No waterbodies present on the site, nor would any be affected by the proposed project.
	e project have the potential to affect any groundwater resources (e.g., groundwater appropriation, change in e, or contamination)?
No.	
ERDB#	knowledge, has the project undergone a previous Natural Heritage review? If so, please list the correspondence #: ½ 20160381 How does this request differ from the previous request (e.g., change in scope, change in y, project being revived, project expansion, different phase)?
This request c	covers a single property, for a specific construction/demolition project. Previous request was for data needed to administratively categorize 4 property parcels with regard to presence/absence of natural resources.
To your list: No	knowledge, have any native plant community or rare species surveys been conducted within the site? If so, please
List any	DNR Permits or Licenses that you will be applying for or have already applied for as part of this project:
Not app	olicable.
NFORM	MATION WE PROVIDE TO YOU:
	esponse will include a Natural Heritage letter. If applicable, the letter will discuss potential effects to rare features.
	Check here if you are interested in a list of rare features in the vicinity of the area of interest but you do not need a review of potential effects to rare features. Please list the reason a review is not needed:
and know project b	nding on the results of the query or review, the response may include an Index Report of known aggregation sites wn occurrences of federally and state-listed plants and animals* within an approximate one-mile radius of the boundary/area of interest. The Index Report and Natural Heritage letter can be included in any public mental review document.
Detailed	tailed Report that contains more information on each occurrence may also be requested. Please note that the Report may contain specific location information that is protected under <i>Minnesota Statutes</i> , section 84.0872, and, as such, the Detailed Report may not be included in any public document (e.g., an EAW).
\checkmark	Check here if you would like to request a Detailed Report. Please note that if the results of the review are 'No Effects' or a standard comment, a Detailed Report may not be available.
FEES /	TURNAROUND TIME
There is order rec	a fee* for this service. Requests generally take 3-4 weeks from date of receipt to process, and are processed in the ceived.

I have read the entire form and instructions, and the information supplied above is complete and accurate. I understand that material supplied to me from the Natural Heritage Information System is copyrighted and that I am not permitted to reproduce or publish any of this copyrighted material without prior written permission from the DNR. Further, if permission to publish is given, I understand that I must credit the Minnesota Division of Ecological and Water Resources, Minnesota Department of Natural Resources, as the source of the material.

Signature YOCUM.DOUGLAS.S.122 Digitally signed by YOCUM.DOUGLAS.S.1229106500 (required) 9106500 Date: 2019.02.21 14:28:26 -06'00'

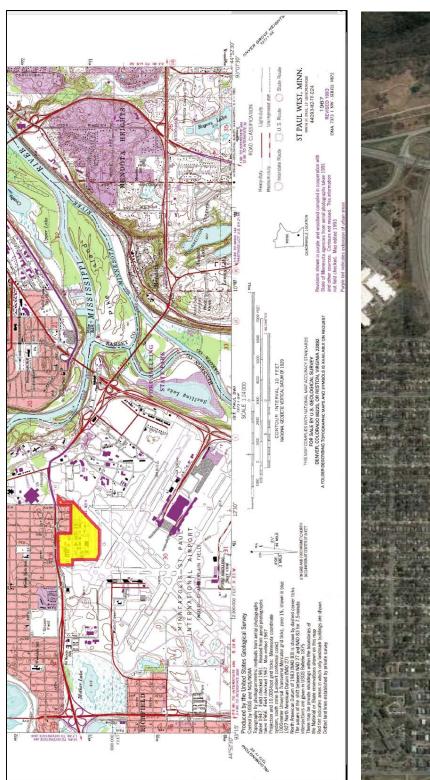
Note: Digital signatures representing the name of a person shall be sufficient to show that such person has signed this document.

Mail or email completed form to:

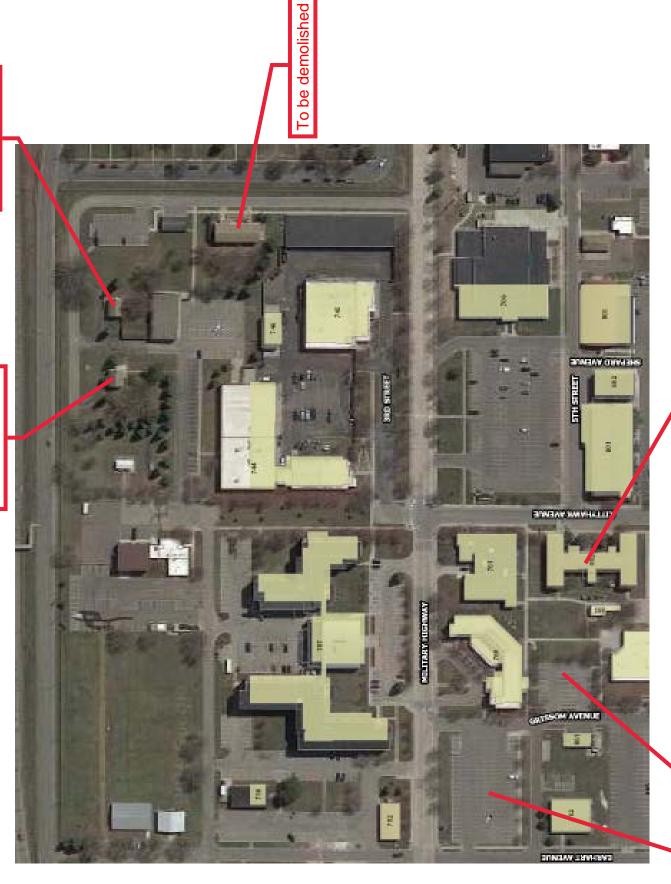
Lisa Joyal, Endangered Species Review Coordinator Division of Ecological and Water Resources Minnesota Department of Natural Resources 500 Lafayette Road, Box 25 St. Paul, Minnesota 55155 Review.NHIS@state.mn.us

Online version of the form

Revised March 2, 2012









Minnesota Department of Natural Resources
Division of Ecological & Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

April 16, 2019

Correspondence # ERDB 20190289

Mr. Douglas Yocum U.S. Air Force Reserve, 934th Airlift Wing 760 Military Highway, Bldg 744 CEV Minneapolis, MN 55450

RE: Natural Heritage Review of the proposed CONSTRUCT MISSION SUPPORT GROUP FACILITY, T28N R23W Section 19; Hennepin County

Dear Mr. Yocum,

As requested, the above project has been reviewed for potential effects to known occurrences of rare features. Given the project details provided with the data request form, I do not believe the proposed project will negatively affect any known occurrences of rare features.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location (noted above) and the project description provided on the NHIS Data Request Form. Please contact me if project details change or for an updated review if construction has not occurred within one year.

The Natural Heritage Review does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. If needed, please contact your DNR Regional Environmental Assessment Ecologist to determine whether there are other natural resource concerns associated with the proposed project. Please be aware that additional site assessments or review may be required.

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources. Please include a copy of this letter in any state or local license or permit application. An invoice will be mailed to you under separate cover.

Sincerely,

Samantha Bump

Natural Heritage Review Specialist

Samantha Bump

Samantha.Bump@state.mn.us

Links: DNR Regional Environmental Assessment Ecologist Contact Info

http://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Minnesota-Wisconsin Ecological Services Field Office 4101 American Blvd E Bloomington, MN 55425-1665 Phone: (952) 252-0092 Fax: (952) 646-2873

http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html



In Reply Refer To: February 19, 2019

Consultation Code: 03E19000-2019-SLI-0469

Event Code: 03E19000-2019-E-01188

Project Name: Construct Mission Support Group Facility

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the action area the area that is likely to be affected by your proposed project. The list also includes any designated and proposed critical habitat that overlaps with the action area. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representatives) must consult with the Service if they determine their project may affect listed species or critical habitat. Agencies must confer under section 7(a)(4) if any proposed action is likely to jeopardize species proposed for listing as endangered or threatened or likely to adversely modify any proposed critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website http://ecos.fws.gov/ipac/ at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/

<u>s7process/index.html</u>. This website contains step-by-step instructions that will help you determine if your project will have an adverse effect on listed species or critical habitat and will help lead you through the Section 7 process.

For all wind energy projects and projects that include installing towers that use guy wires or are over 200 feet in height, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within the action area.

Although no longer protected under the Endangered Species Act, be aware that bald eagles (*Haliaeetus leucocephalus*) are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), as are golden eagles (*Aquila chrysaetos*). Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near a bald eagle nest or winter roost area, see our Eagle Permits website at http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html. The information available at this website will help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Migratory Birds

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Minnesota-Wisconsin Ecological Services Field Office 4101 American Blvd E Bloomington, MN 55425-1665 (952) 252-0092

Project Summary

Consultation Code: 03E19000-2019-SLI-0469

Event Code: 03E19000-2019-E-01188

Project Name: Construct Mission Support Group Facility

Project Type: DEVELOPMENT

Project Description: Location of project is Minneapolis-St. Paul International Airport Air

Reserve Station, Hennepin County, Minnesota. The specific parcels involved are within an 88-acre tract designated as "Area N", adjacent to the northern perimeter of the Minneapolis-St. Paul International Airport and predominantly within the municipal boundary of the City of

Minneapolis.

Proposed project consists of constructing a new two-story administrative building, with finished usable space totaling 22,575 square feet, on developed land on a military installation, within a setting similar to an industrial/business park.

Parcel selected for construction site will be between 30,000 and 46,000 square feet.

Project will also include demolishing four existing outdated 1940s-era facilities:

Facility 852, a two-story building which totals 17,967 gross square feet (GSF);

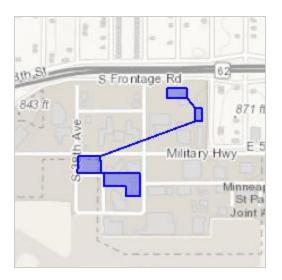
Facility 725, a two-story building which totals 2,389 GSF; Facility 727, a two-story building which totals 2,980 GSF; Facility 729, a two-story building which totals 6,745 GSF.

Combined area of demolition activities would encompass approximately 65,000 square feet.

Timing of project is to be determined based on acquisition of Military Construction funding. Funding could potentially be secured as early FY2020, or as far out as FY2024.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/44.895991848500046N93.21738772862324W



Counties: Hennepin, MN

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species.	Threatened
Species profile: https://ecos.fws.gov/ecp/species/9045	

Clams

NAME STATUS

Higgins Eye (pearlymussel) *Lampsilis higginsii*No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/5428

Endangered

02/19/2019

Insects

NAME STATUS

Rusty Patched Bumble Bee Bombus affinis

Endangered

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9383

General project design guidelines:

https://ecos.fws.gov/ipac/guideline/design/population/10383/office/32410.pdf

Species survey guidelines:

https://ecos.fws.gov/ipac/guideline/survey/population/10383/office/32410.pdf

Habitat assessment guidelines:

https://ecos.fws.gov/ipac/guideline/assessment/population/10383/office/32410.pdf

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the <u>USFWS</u> <u>Birds of Conservation Concern</u> (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ <u>below</u>. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Bittern <i>Botaurus lentiginosus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6582	Breeds Apr 1 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention	Breeds Dec 1 to Aug 31

because of the Eagle Act or for potential susceptibilities in offshore areas from certain types

of development or activities. https://ecos.fws.gov/ecp/species/1626 Event Code: 03E19000-2019-E-01188

NAME	BREEDING SEASON
Black Tern <i>Chlidonias niger</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Black-billed Cuckoo <i>Coccyzus erythropthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Cerulean Warbler <i>Dendroica cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 22 to Jul 20
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Least Bittern <i>Ixobrychus exilis</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6175	Breeds Aug 16 to Oct 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere

NAME

Willow Flycatcher Empidonax traillii

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

https://ecos.fws.gov/ecp/species/3482

Breeds May 20 to Aug 31

Wood Thrush Hylocichla mustelina

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

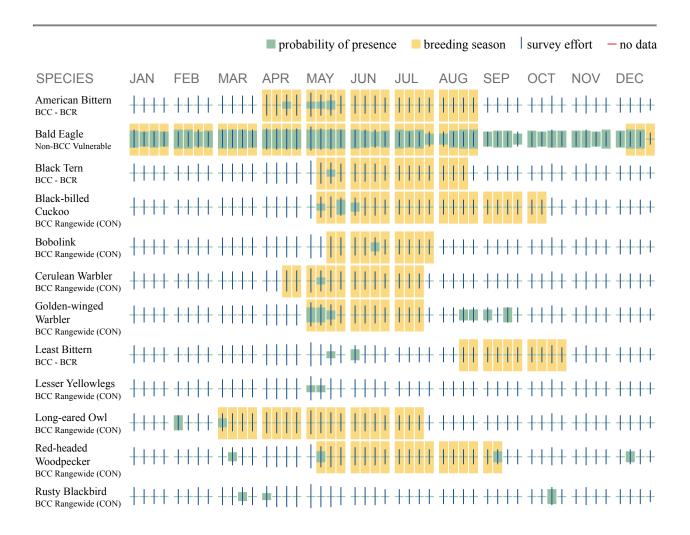
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern</u> (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey, banding, and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>E-bird Explore Data Tool</u>.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Project Mapping of Marine Bird Distributions and Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Minnesota-Wisconsin Ecological Services Field Office 4101 American Blvd E Bloomington, MN 55425-1665

Phone: (952) 252-0092 Fax: (952) 646-2873 http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html



April 12, 2019

In Reply Refer To:

Consultation Code: 03E19000-2019-TA-0469

Event Code: 03E19000-2019-E-02002

Project Name: Project QJKL090004, Construct Mission Support Group Facility

Subject: Verification letter for the 'Project QJKL090004, Construct Mission Support Group

Facility' project under the January 5, 2016, Programmatic Biological Opinion on Final

4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take

Prohibitions.

Dear Douglas Yocum:

The U.S. Fish and Wildlife Service (Service) received on April 12, 2019 your effects determination for the 'Project QJKL090004, Construct Mission Support Group Facility' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take" prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

This IPaC-assisted determination allows you to rely on the PBO for compliance with ESA Section 7(a)(2) only for the northern long-eared bat. It **does not** apply to the following ESA-protected species that also may occur in the Action area:

- Higgins Eye (pearlymussel), *Lampsilis higginsii* (Endangered)
- Rusty Patched Bumble Bee, Bombus affinis (Endangered)

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

[1] Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Project QJKL090004, Construct Mission Support Group Facility

2. Description

The following description was provided for the project 'Project QJKL090004, Construct Mission Support Group Facility':

Event Code: 03E19000-2019-E-02002

Proposed project consists of constructing a new two-story administrative building, with finished usable space totaling 22,575 square feet, on developed land on a military installation, within a setting similar to an industrial/business park. Actual footprint of the new building will most likely be less than 13,000 square feet. Two site parcels are being considered for the specific construction site. The two sites are less than 100 linear feet from each other.

Site Alternative 1 is an existing asphalt parking lot, totaling approximately 26,000 square feet. Location coordinates are 44.895808, -93.217379.

Site Alternative 2 includes an existing asphalt parking lot and adjacent lawn area, totaling approximately 34,000 square feet. Location coordinates are 44.895386, -93.216428.

Project will also include demolishing the following four existing outdated 1940s-era facilities on nearby sites (within 350 meters) in the same complex. Combined footprint area of facility demolitions would total less than 15,000 square feet. Facility 725, a two-story building with a footprint of 810 square feet. Location coordinates are 44.897761, -93.214311.

Facility 727, a two-story building with a footprint of 1,128 square feet. Location coordinates are 44.897763, -93.213778.

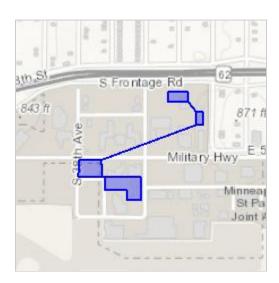
Facility 729, a two-story building with a footprint of 3,260 square feet. Location coordinates are 44.897124, -93.213219.

Facility 852, a two-story building with a footprint of 9,221 square feet. Location coordinates are 44.895242, -93.215697.

Eleven (11) mature trees in close proximity to Buildings 725, 729 and 852 may need to be removed for demolition of those facilities. Tree species include Red Cedar (6); Norway Maple (3); and Scotch Pine (2). Construction site Alternative 1 would not require removal of trees or turf. If construction site Alternative 2 site is selected for construction, it will require removal of 5 flowering crab apple trees, and potentially also 3 mature Marshall Ash and 1 mature Honey Locust. Up to 14,500 square feet of turf currently maintained as mowed lawn would be eliminated as part of construction if using site Alternative 2.

Timing of project is to be determined based on acquisition of construction funding. Funding could potentially be secured as early FY2020. Construction activity (including any site clearing activities) would begin no earlier than April 2020. The construction period, from groundbreaking to beneficial occupancy, is estimated to be approximately nine to twelve months duration. One month for relocation of offices/employees into the new facility is assumed. Subsequent to completion of the relocations, the demolition phase is estimated to take approximately one to three months. Total duration is therefore estimated to be up to sixteen months.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/44.895991848500046N93.21738772862324W



Determination Key Result

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

- 1. Is the action authorized, funded, or being carried out by a Federal agency? *Yes*
- 2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")

 No
- 3. Will your activity purposefully **Take** northern long-eared bats? *No*
- 4. Is the project action area located wholly outside the White-nose Syndrome Zone? Automatically answered No
- 5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

Yes

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

No

7. Will the action involve Tree Removal?

Yes

- 8. Is the action the removal of hazardous trees for protection of human life or property? No
- 9. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

No

10. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

Estimated total acres of forest conversion:
 If known, estimated acres of forest conversion from April 1 to October 31
 If known, estimated acres of forest conversion from June 1 to July 31

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31 *0*

6. If known, estimated acres of timber harvest from June 1 to July 31

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31 θ

9. If known, estimated acres of prescribed fire from June 1 to July 31 0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)? θ



DEPARTMENT OF THE AIR FORCE AIR FORCE RESERVE COMMAND

17 April 2019

934th Airlift Wing Civil Engineering / Environmental Flight Building 744 CEV 760 Military Highway Minneapolis, MN 55450-2100

U.S. Fish & Wildlife Service Minnesota-Wisconsin Ecological Services Field Office 4101 American Blvd E Bloomington, MN 55425-1665

RE: Informal Consultation under Endangered Species Act Section 7(a)(2)

Dear Mr. Fasbender,

The U.S Air Force Reserve's 934th Airlift Wing (934 AW) is the action agency for a proposed federally-funded project identified as Air Force project QJKL090004, Construct Mission Support Group Facility. This proposed action would occur at Minneapolis-St. Paul International Airport Air Reserve Station in Hennepin County, Minnesota. This location lies within Township 28, Range 23W; Section 19.

The U.S. Fish & Wildlife Service (USFWS) "Information for Planning and Consultation" (IPaC) online tool was used to generate a list of "trust resources" known or expected to be on or near the project area. Reference Consultation Code 03E19000-2019-SLI-0469, Event Code 03E19000-2019-E-01188. Three (3) Threatened and Endangered Species were identified by IPaC as potentially present in the area of the proposed project's location:

- Northern Long-eared Bat Myotis septentrionalis
- Higgins Eye (pearlymussel) Lampsilis higginsii
- Rusty Patched Bumble Bee Bombus affinis

No critical habitats were identified by IPaC within the project area.

The 934 AW has reviewed the proposed action, (project QJKL090004, Construct Mission Support Group Facility, described in Attachment 1), and has made determinations that this proposed action is *not likely to adversely affect* the three (3) species named above.

The "Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency Determination Key" within IPaC was used to make a determination for that species. Reference Consultation Code 03E19000-2019-TA-0469, Event Code 03E19000-2019-E-02002. The determination key result stated in IPaC was: "This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered

Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions to fulfill its Section 7(a)(2) consultation obligation." The species determination generated in IPaC indicated a determination of not likely to adversely affect Northern Long-eared Bat Myotis septentrionalis.

Determinations for Higgins Eye (pearlymussel) *Lampsilis higginsii* and for Rusty Patched Bumble Bee *Bombus affinis* are provided as Attachments 2 and 3. We now respectfully request written concurrence from your office on these determinations.

The 934 AW is also preparing an Environmental Assessment (EA) under the National Environmental Policy Act to evaluate potential environmental impacts associated with the Mission Support Group Facility project. If your agency requests to be included in distribution of the draft EA, please indicate that request in your response. Any questions can be directed to me at (612) 713-1955, or via email to douglas.yocum@us.af.mil.

Sincerely,

DOUGLAS S. YOCUM Chief, Environmental Flight

Douglas S. Youm

Attachments:

- 1. Description of Proposed Project QJKL090004, Construct Mission Support Group Facility
- 2. Higgins' Eye Pearlymussel (Lampsilis higginsii) Determination
- 3. Rusty Patched Bumble Bee (Bombus affinis) Determination

Attachment 1

Description of Proposed Project QJKL090004, Construct Mission Support Group Facility

Proposed project consists of constructing a new two-story administrative building, with finished usable space totaling 22,575 square feet, on developed land on a military installation, within a setting similar to an industrial/business park. Actual footprint of the new building will most likely be less than 13,000 square feet. Two site parcels are being considered for the specific construction site. The two sites are less than 100 linear feet from each other.

- Site Alternative 1 is an existing asphalt parking lot, totaling approximately 26,000 square feet. Location coordinates are 44.895808, -93.217379.
- Site Alternative 2 includes an existing asphalt parking lot and adjacent lawn area, totaling approximately 34,000 square feet.

Location coordinates are 44.895386, -93.216428.

Project will also include demolishing the following four existing outdated 1940s-era facilities on nearby sites (within 350 meters) in the same complex. Combined footprint area of facility demolitions would total less than 15,000 square feet.

- Facility 725, a two-story building with a footprint of 810 square feet. Location coordinates are 44.897761, -93.214311.
- Facility 727, a two-story building with a footprint of 1,128 square feet. Location coordinates are 44.897763, -93.213778.
- Facility 729, a two-story building with a footprint of 3,260 square feet. Location coordinates are 44.897124, -93.213219.
- Facility 852, a two-story building with a footprint of 9,221 square feet. Location coordinates are 44.895242, -93.215697.

Eleven (11) mature trees in close proximity to Buildings 725, 729 and 852 may need to be removed for demolition of those facilities. Tree species include Red Cedar (6); Norway Maple (3); and Scotch Pine (2). Construction site Alternative 1 would not require removal of trees or turf. If construction site Alternative 2 site is selected for construction, it will require removal of 5 flowering crab apple trees, and potentially also 3 mature Marshall Ash and 1 mature Honey Locust. Up to 14,500 square feet of turf currently maintained as mowed lawn would be eliminated as part of construction if using site Alternative 2.

Timing of project is to be determined based on acquisition of construction funding. Funding could potentially be secured as early FY2020. Construction activity (including any site clearing activities) would begin no earlier than April 2020. The construction period, from groundbreaking to beneficial occupancy, is estimated to be approximately nine to twelve months duration. One month for relocation of offices/employees into the new facility is assumed. Subsequent to completion of the relocations, the demolition phase is estimated to take approximately one to three months. Total duration is therefore estimated to be up to sixteen months.

Regional setting and the specific locations of sites included in proposed action are depicted in the following Figures 1 and 2.

Figure 1. Regional Setting of Proposed Action.

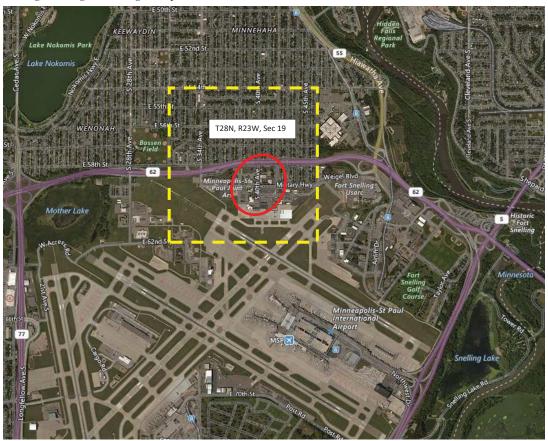
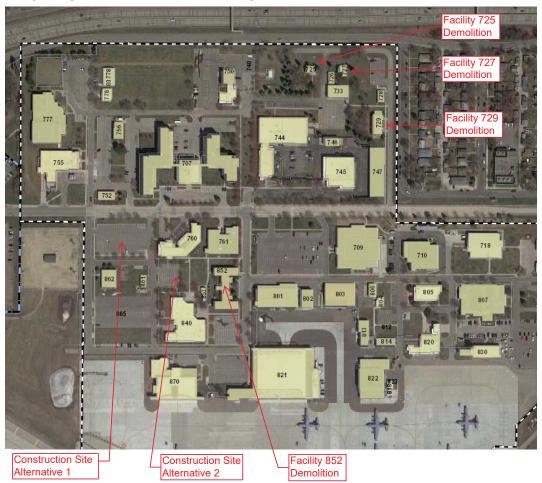


Figure 2. Specific Locations of Sites included in Proposed Action.



Attachment 2 – Higgins' Eye Pearlymussel (Lampsilis higginsii) Determination

The following resources were used and reviewed to help determine if the project will have an adverse effect on Higgins' Eye Pearlymussel.

- *Higgins' Eye Pearlymussel Lampsilis higginsii* Fact Sheet; USFWS, August 2012 https://www.fws.gov/midwest/endangered/clams/pdf/HigginsEyeFactSheet2012.pdf
- Higgins eye (*Lampsilis higginsii*) Essential Habitat Areas 2008 Review and Addition of New EHAs; USFWS, September 2008 https://www.fws.gov/midwest/endangered/clams/higginseye/hepmeha.html
- Higgins Eye Pearlymussel (*Lampsilis higginsii*) Recovery Plan: First Revision; USFWS, May 2004
 https://ecos.fws.gov/docs/recovery_plan/040714.pdf
- Minnesota Department of Natural Resources Correspondences #ERDB 20190289 and #ERDB 20160381

USFWS literature describes Higgins' Eye Pearlymussel as a mussel of larger rivers where it is usually found in deep water with moderate currents. The location of the proposed project is neither on nor adjacent to a river. Storm runoff from the project area is conveyed from Air Force property into the City of Minneapolis storm sewer system. The storm water flows through approximately 1.3 linear miles of city storm sewer system, and ultimately discharges into the Mississippi River through City of Minneapolis outfall 10-720, slightly upstream of River Mile 847. From this discharge point, the nearest downstream "Essential Habitat Area" for the species is 186 miles downstream (UMR, Pool 9, River Mile 660-661 near Lansing, Iowa).

The Minnesota Natural Heritage Information System includes a record identifying

Specific location information redacted due to being considered nonpublic data under Minnesota Statutes, section 84.0872, subd. 2.

on the Mississippi

River, it is unlikely that project activities would have any adverse impact on Higgins' Eye Pearlymussel that may still be present at that location. The drainage area ("pipeshed") serviced by the City's Outfall 10-720 encompasses 1009.9 acres of urban residential, commercial and industrial area. The project area's maximum extent therefore represents 0.11% of that pipeshed. None of the USFWS documents reviewed indicated that small scale building construction or demolition activities, in an urban setting distant from the river, would be considered as posing significant threats to the Higgins' Eye Pearlymussel.

Based on this analysis, the 934 AW's determination is that the proposed action (project QJKL090004, Construct Mission Support Group Facility) is *not likely to adversely affect* Higgins' Eye Pearlymussel (*Lampsilis higginsii*).

Attachment 3 – Rusty Patched Bumble Bee (Bombus affinis) Determination

The following resources were used and reviewed to help determine if the project will have an adverse effect on this listed species:

- U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website https://www.fws.gov/midwest/endangered/section7/s7process/index.html
- Rusty Patched Bumble Bee Guidance for Project Proponents/Federal and Non-federal Project Reviews; https://www.fws.gov/midwest/endangered/insects/rpbb/ProjectProponent.html
- The Rusty Patched Bumble Bee (*Bombus affinis*) Interagency Cooperation under Section 7(a)(2) of the Endangered Species Act, Voluntary Implementation Guidance, Version 1.1; USFWS, Regions 3, 4, 5 and 6; March 20, 2017
 https://www.fws.gov/midwest/endangered/insects/rpbb/pdf/S7GuidanceRPBB20Mar2017.pdf
- Minnesota-Wisconsin Ecological Services Field Office Habitat Assessment Guidelines -Rusty Patched Bumble Bee - May 1, 2017
- Rusty Patched Bumble Bee Habitat Assessment Form & Guide; Xerces Society for Invertebrate Conservation, May 2017
 https://www.fws.gov/midwest/endangered/insects/rpbb/pdf/HabitatAssessmentFormGuideByXercesForRPBB.pdf
- Survey Protocols for the Rusty Patched Bumble Bee (Bombus affinis), Version 2.1; USFWS, February 28, 2018
 https://www.fws.gov/midwest/endangered/insects/rpbb/pdf/SurveyProtocolsRPBB28Feb2018.pdf

The location of the proposed project is in Hennepin County, Minnesota. USFWS data identifies Hennepin County as an area where the Rusty Patched Bumble Bee occurs. The specific location is within an area designated as a "High Potential Zone" (zones where the species is likely present). Project proponents are advised to assume Rusty Patched Bumble Bees are present *where suitable habitat is present*.

The "Voluntary Implementation Guidance" document identifies "Habitats Where the Rusty Patched Bumble Bee is Unlikely to be Present" (i.e., areas not suitable for the Rusty Patched Bumble Bee for nesting, overwintering, or foraging). These include "paved areas" and "areas moved too frequently to allow development of diverse wildflower resources."

Appendix B of the USFWS' Survey Protocols for the Rusty Patched Bumble Bee, Version 2.1, also identifies areas that are "not suitable for the rusty patched bumble bee for nesting, overwintering, or foraging." These include those listed above, as well as "mowed turf lawns without clover." This document also includes a "Special note on urban areas", which states the following:

Some of the last refuges for B. affinis appears to be in large urban areas, such as Minneapolis/St. Paul, Madison, Milwaukee and Chicago. From a landscape perspective, these cities have a network of natural areas that include parks, greenways, public gardens and other public or undeveloped lands. Interspersed

among these natural areas are residential areas - - yards, gardens and boulevards that provide additional sources of flowering plants and nesting/overwintering habitat - and habitat for dispersal (Fig. B2.b). Areas considered high quality habitat in urban areas have the same characteristics as high quality habitat outside of urban areas. They are generally open areas with an abundance and diversity of plants that flower from mid-March through mid-October; that have undisturbed areas without landscaping mulch or landscape fabric; and that are managed with minimal use of pesticides; particularly insecticides and fungicides.

In the urban landscape, high quality habitat is most likely in or near natural areas that support open, or mostly open, habitats such as prairie, savannas, grasslands, or grassland/shrub mix (Fig. B1.a). Small woodlots and the edges of larger tracts of forested lands also provide high quality habitat if located adjacent to areas with abundant flowering plants or have interspersed meadows. These woodlots or wood edges may provide important early spring habitat if they support spring ephemerals or early spring blooming trees and shrubs. Natural areas within urban areas may be in blocks (small or large) or may be linear. In general, the larger the block of contiguous habitat, the higher the quality the habitat is. The value of any of these tracts is higher if surrounding areas also provide flowering plants and some undisturbed areas, such as residential areas with gardens. The habitat quality of small or linear tracts may be negated if surrounding areas are dominated by roads and buildings with little to no natural areas or gardens.

Existing characteristics of the proposed project area were compared to USFWS information referenced above, regarding habitats suitable for the species. All portions of the sites on which the project would occur are either existing buildings with peripheral landscaping, paved surfaces, or lawn areas regularly mowed and maintained throughout spring, summer and autumn. The limited areas of landscaping have mulch and/or landscape fabric. The project area is an urban site, with surrounding areas dominated by roads and buildings with little to no natural areas or gardens.

"Project-Related Stressors" presented in the Voluntary Implementation Guidance were also reviewed. The only category of stressors that appears to be a potential during the proposed project is "Development and Land Clearing Activities." The Voluntary Implementation Guidance indicates that ground disturbing activities could affect the Rusty Patched Bumble Bee in any season *except in areas where they are unlikely to nest or overwinter*. Since the action area contains only areas that are not considered suitable for nesting, overwintering, or foraging by the Rusty Patched Bumble Bee, the species is therefore unlikely to be exposed to Development and Land Clearing Activity stressors associated with the action.

Based on this analysis, the 934 AW's determination is that the proposed action (project QJKL090004, Construct Mission Support Group Facility) is *not likely to adversely affect* Rusty Patched Bumble Bee (*Bombus affinis*).

YOCUM, DOUGLAS S GS-12 USAF AFRC 934 CE/CEV

From: Horton, Andrew <andrew_horton@fws.gov>

Sent: Friday, May 10, 2019 3:08 PM

To: YOCUM, DOUGLAS S GS-12 USAF AFRC 934 CE/CEV

Cc: Fasbender, Peter

Subject: [Non-DoD Source] Re: [EXTERNAL] Informal Consultation under Endangered Species

Act Section 7(a)(2)

Attachments: StreamlinedConsultationForm29Feb2016.docx

Doug,

I have reviewed the proposed project and based on your conclusion, suitable habitat does not currently exists within the action area for the the rusty patched bumble bee. When no habitat is present, we assume that the species is also absent. A more appropriate finding on your end would be a "no effect" determination. We recommend planting pollinator friendly resources, if there is an opportunity during this project to do so. Adding more suitable habitat for rusty patched bumble bees in the area would help maintain and recover local populations, especially if the MSP airport were increasing floral resources within their jurisdiction as well.

You also acknowledge that due to the scale of this project and the distance to known suitable habitat areas for the Higgins eye pearlymussel, impacts are highly unlikely. This would also warrant a "no effect" determination on your part. When the best available information reveals no habitat or no likely impact, a "no effect" determination made by a Federal Agency does not need to be reviewed by our office.

The Service assumes presence of the northern long-eared bat throughout the state, and since tree removal is a component of this project, affects to the species may occur. This species, however, was listed with a 4d rule which provides an exemption for tree related activities if they occur outside of 150-feet from a known roost tree, or 0.25 miles from a known hibernacula. This project is outside of both criteria, therefore, impacts to the species can be documented as a may affect, but take is not prohibited. To complete the streamlined consultation process, you can either fill out the attached form or use the 4d rule determination key in IPAC to generate all the information electronically. Let me know if you need any assistance with completing this step.

- Andrew

Andrew Horton U.S. Fish and Wildlife Service Minnesota-Wisconsin Field Office 4101 American Blvd East Bloomington, MN 55425-1665 (952) 252-0092, ext. 208

YOCUM, DOUGLAS S GS-12 USAF AFRC 934 CE/CEV

From: MN_MNIT_Data Request SHPO <DataRequestSHPO@state.mn.us>

Sent: Friday, April 5, 2019 9:26 AM

To: YOCUM, DOUGLAS S GS-12 USAF AFRC 934 CE/CEV

Subject: [Non-DoD Source] RE: Request for search of MN Statewide Inventory Database

Attachments: HennepinHistoric.xls

Hello Doug,

Your requested historic report is attached. Our database has no archaeologic records for the given area.

Jim

SHPO Data Requests
Minnesota State Historic Preservation Office
50 Sherburne Avenue, Suite 203
Saint Paul, MN 55155
(651) 201-3295
datarequestshpo@state.mn.us

Notice: This email message simply reports the results of the cultural resources database search you requested. The database search is only for previously known archaeological sites and historic properties. IN NO CASE DOES THIS DATABASE SEARCH OR EMAIL MESSAGE CONSTITUTE A PROJECT REVIEW UNDER STATE OR FEDERAL PRESERVATION LAWS - please see our website at https://mn.gov/admin/shpo/protection/ for further information regarding our Environmental Review Process.

Because the majority of archaeological sites in the state and many historic/architectural properties have not been recorded, important sites or properties may exist within the search area and may be affected by development projects within that area. Additional research, including field surveys, may be necessary to adequately assess the area's potential to contain historic properties or archaeological sites.

Properties that are listed in the National Register of Historic Places (NRHP) or have been determined eligible for listing in the NRHP are indicated on the reports you have received, if any. The following codes may be on those reports:

NR - National Register listed. The properties may be individually listed or may be within the boundaries of a National Register District.

CEF - Considered Eligible Findings are made when a federal agency has recommended that a property is eligible for listing in the National Register and MN SHPO has accepted the recommendation for the purposes of the Environmental Review Process. These properties need to be further assessed before they are officially listed in the National Register.

SEE - Staff eligible Findings are those properties the MN SHPO staff considers eligible for listing in the National Register.

SEF - Staff eligible Findings are those properties the MN SHPO staff considers eligible for listing in the National Register, in circumstances other than the Environmental Review Process.

DOE - Determination of Eligibility is made by the National Park Service and are those properties that are eligible for listing in the National Register, but have not been officially listed.

CNEF - Considered Not Eligible Findings are made during the course of the Environmental Review Process. For the purposes of the review a property is considered not eligible for listing in the National Register. These properties may need to be reassessed for eligibility under additional or alternate contexts.

Properties without NR, CEF, SEF, DOE, or CNEF designations in the reports may not have been evaluated and therefore no assumption to their eligibility can be made. Integrity and contexts change over time, therefore any eligibility determination made ten (10) or more years from the date of the current survey are considered out of date and the property will need to be reassessed.

If you require a comprehensive assessment of a project's potential to impact archaeological sites or historic/architectural properties, you may need to hire a qualified archaeologist and/or historian. If you need assistance with a project review, please contact Kelly Gragg-Johnson, Environmental Review Specialist @ 651-201-3285 or by email at kelly.graggjohnson@state.mn.us.

The Minnesota SHPO Archaeology and Historic/Architectural Survey Manuals can be found at https://mn.gov/admin/shpo/identification-evaluation/.

MN SHPO research hours are 8:30 AM - 4:00 PM Tuesday-Friday. Please call ahead at 651-201-3295 to ensure staff is available to assist you, if necessary. Thank you.

----Original Message-----

From: YOCUM, DOUGLAS S GS-12 USAF AFRC 934 CE/CEV <douglas.yocum@us.af.mil>

Sent: Friday, April 5, 2019 9:08 AM

To: MN_MNIT_Data Request SHPO <DataRequestSHPO@state.mn.us> Subject: Request for search of MN Statewide Inventory Database

Good morning,

The United States Air Force Reserve's 934th Airlift Wing (934 AW) is proposing a federal project consisting of constructing a new administrative facility and demolishing four existing facilities on Air Force property at Minneapolis-St. Paul International Airport Air Reserve Station, Minnesota. Shape files depicting the Air Force property are attached. Specific project location information is provided below.

County: Hennepin

City/Township: Fort Snelling Unorganized Territory and City of Minneapolis

PLS Location: NW ¼ of SE ¼ of Section 19, Township 28N, Range 23W

GPS Coordinates:

Construction Site Alternative 1: 44.895808, -93.217379.
Construction Site Alternative 2: 44.895386, -93.216428.
Facility 725 Demolition Site: 44.897761, -93.214311.
Facility 727 Demolition Site: 44.897763, -93.213778.
Facility 729 Demolition Site: 44.897124, -93.213219.
Facility 852 Demolition Site: 44.895242, -93.215697.

Please accept this email as a request for a search of the MN Statewide Inventory Database, to identify archaeological, historical and architectural districts or structures within the proposed project area. Thank you.

Doug Yocum
Environmental Flight Chief

934th Airlift Wing Civil Engineering Environmental Flight 760 Military Highway, Building 744 Minneapolis, MN 55450-2100

COUNTY Hennepin	CITYTWP	PROPNAME	ADDRESS	TOWN RA	NGIS	EC ⁻ QUARTEF	R:USGS	REPORTNUM NRH	PCEF DOE	INVENTNUM
	Fort Smalling M	Iilitary Reservation								
	Fort Stierning W	Offices and Base Exchange	751 Kittyhawk Ave.	28	23	19 NW-NW-SE	St. Paul West	HE-92-5H		HE-FSR-0085
		Communications Building	761 Kittyhawk Ave.	28	23	19 SW-NW-SE	St. Paul West	HE-92-5H		HE-FSR-0086
		Central Heating Plant	812 Doolittle Ave.	28	23	19 SE-NW-SE	St. Paul West	HE-92-5H		HE-FSR-0087
		Aircraft Hanger/Offices/Shops	off Mn. Hwy. 55	28	23	19 NE-SW-SE	St. Paul West	HE-92-5H		HE-FSR-0088
		Base Exchange - Building 32	865 Grissom Ave.	28	23	19 SE-NE-SW	St. Paul West	HE-92-5H		HE-FSR-0089
		Commanding Officer's Quarters	66 1st St.	28	23	19 NE-NW-SE	St. Paul West	HE-92-5H		HE-FSR-0090
		house	5857 42nd Ave. S.	28	23	19 NE-NW-SE	St. Paul West	HE-92-5H		HE-FSR-0091
		house	5837 42hd Ave. S. 5837 44th Ave. S.	28	23	19 NW-NE-SE	St. Paul West	HE-92-5H		HE-FSR-0091
		house	5848 45th Ave. S.	28	23	19 NE-NE-SE	St. Paul West	HE-92-5H		HE-FSR-0092
								HE-94-15H	Y	HE-FSR-0094
		Northwest Airlines Municipal Hanger Northwest Airline Municipal Hangar	6201 34th Ave. S.	28 28	23 23	19 SW-SE-SW 19 SW-SE-SW	St. Paul West Saint Paul West	HE-94-15H	Y Y	HE-FSR-0101
	Minneapolis	Northwest Airline Municipal riangar		28	23	19 SW-SE-SW	Saint Paul West	пс-94-13п	Y	HE-FSK-0101
	.viiiiicupoiis	Bridge No. 27530	PED AT 40th Ave S Over th 62	28	23	19				HE-MPC-10312
		Facility 720 Base Supply and Equipment	TESTIT TOMPTIVES OVER MICE	20	20	.,				112 111 0 10312
		Warehouse	Mustang Dr. and LeMay Ave.	28	23	19 NE-SW	St. Paul West	HE-2012-4H		HE-MPC-1625
		Facility 720 Base Aircraft Support Equipment								
		Facility	5th St. and LeMay Ave.	28	23	19 NE-SW	St. Paul West	HE-2012-4H		HE-MPC-1626
		Facility 752 Bioenvironmental Engineering								
		and Public Health Office/Mail Room	Mustang Ave. and Minuteman Dr.	28	23	19 NE-SW	St. Paul West	HE-2012-4H		HE-MPC-1628
			Pedestrian at 40th Ave TH 62 .8 miles W of Jct. TH	I						
		Bridge 27530	55	28	23	19	St. Paul West			HE-MPC-17756
		Bridge 27524	43rd Avenue South over TH 62	28	23	19	Saint Paul West			HE-MPC-19103
Hennepin										
	Minneapolis									
		Riverside Evangelical Free Church	3401 Boardman St. S.	28	23	19 NE-NW-NW	St. Paul West			HE-MPC-4015
		Minneapolis Fire Station No. 12	5401 33rd Ave. S.	28	23	19 NE-NW-NW	St. Paul West			HE-MPC-4562
		house	5609 34th Ave. S.	28	23	19 NE-SW-NW	St. Paul West	xx-95-5H		HE-MPC-4569
		duplex	5723-5733 34th Ave. S.	28	23	19 SE-SW-NW	St. Paul West			HE-MPC-4570
		Morris Park Elementary School	3810 56th St. E.	28	23	19 SE-NE-NW	St. Paul West		Y	HE-MPC-4727
		Bachelor Officers' Quarters (#13)	711 5th St. Area NMpls./St.P. Airport Air Reserve Station	28	23	19	St. Paul West			HE-MPC-4844
		Bacheloi Officers Quarters (#13)	761 Kittyhawk Ave. Area NMpls./St.P. Airport Air	28	23	19	St. Faul West			11L-WFC-4644
		Building #41	Reserve Stn.	28	23	19	St. Paul West			HE-MPC-4947
			812 Doolittle Ave. Area NMpls./St.P. Airport Air							
		Steam Plant (#25)	Reserve Stn.	28	23	19	St. Paul West			HE-MPC-4948
		Hangar (#21)	821 Kittyhawk Ave. Area NMpls./St.P. Airport Air Reserve Stn.	28	23	19	St. Paul West			HE-MPC-4949
		Hangar (#21)	reserve sui.	20	23	19	St. I aur west			TIL-WII C-4747
		house	5857 42nd Ave. S. (moved from 5921 41st Ave. S.)	28	23	19	Saint Paul West			HE-MPC-4952
		house	5837 44th Ave. S.	28	23	19	Saint Paul West			HE-MPC-4953
		house	5848 45th Ave. S.	28	23	19	Saint Paul West			HE-MPC-4954
			715 5th St. Area NMpls./St.P. Airport Air Reserve							
		Students' Barracks (#19)	Station	28	23	19	St. Paul West			HE-MPC-5008
		Students' Barracks (#110)	716 5th St. Area NMpls./St.P. Airport Air Reserve Station	28	23	19	St. Paul West			HE-MPC-5009
		Students Barracks (#110)	852 Kittyhawk Ave. Area NMpls./St.P. Airport Air	20	23	19	St. I auf West			11L-WI C-5007
		Instruction Building (#42)	Reserve Stn.	28	23	19	St. Paul West			HE-MPC-5051
			864 Earhart Ave. Area NMpls./St.P. Airport Air							
		Cold Storage Building (#412)	Reserve Stn.	28	23	19	St. Paul West			HE-MPC-5052
		Subsistence Building (#47)	865 Grissom Ave. Area NMpls./St.P. Airport Air Reserve Stn.	28	23	19	St. Paul West			HE-MPC-5053
		Substitute Building (****)	801 5th St. Area NMpls./St.P. Airport Air Reserve	20	23	17	Di. Tuur West			112 1111 0 3033
		Storage Building (#12)	Station	28	23	19	St. Paul West			HE-MPC-5054
			802 5th St. Area NMpls./St.P. Airport Air Reserve							
Hennepin		Fire Station (#113)	Station	28	23	19	St. Paul West			HE-MPC-5055
пепперіп	Minneapolis									
	winincapons		803 5th St. Area NMpls./St.P. Airport Air Reserve							
		Garage, Auto Maintenance (#14)	Station	28	23	19	St. Paul West			HE-MPC-5056
			804 5th St. Area NMpls./St.P. Airport Air Reserve							
		Pump House (#15)	Station	28	23	19	St. Paul West			HE-MPC-5057
		Paint and Dope Spray Booth (#24)	813 Doolittle Ave. Area NMpls./St.P. Airport Air Reserve Stn.	28	23	19	St. Paul West			HE-MPC-5058
			814 Doolittle Ave. Area NMpls./St.P. Airport Air							
		Paint and Oil Storage (#23)	Reserve Stn.	28	23	19	St. Paul West			HE-MPC-5059
			822 Doolittle Ave. Area NMpls./St.P. Airport Air							
		Assembly and Repair Shop (#22)	Reserve Stn. 861 Grisson Ava Aras N. Mala /St B. Aimort Air	28	23	19	St. Paul West			HE-MPC-5060
		Recreation Workshop (#50)	861 Grissom Ave. Area NMpls./St.P. Airport Air Reserve Stn.	28	23	19	St. Paul West			HE-MPC-5062
		1 ()	5609 31st Ave. S	28	23	19				HE-MPC-9761
			5612 46th Ave. S	28	23	19				HE-MPC-9762
				20	2.5					



DEPARTMENT OF THE AIR FORCE AIR FORCE RESERVE COMMAND

14 March 2019

934th Airlift Wing Civil Engineering Environmental Flight 760 Military Highway, Building 744 Minneapolis, MN 55450-2100

Sarah Beimers
Environmental Review Program Manager
State Historic Preservation Office
203 Administration Building
50 Sherburne Ave.
St. Paul. MN 55155

Dear Ms. Beimers,

The United States Air Force Reserve's 934th Airlift Wing (934 AW) is proposing a federal project consisting of constructing a new administrative facility ("Mission Support Group Facility") and demolishing four existing facilities at Minneapolis-St. Paul International Airport Air Reserve Station (MSP IAP ARS), Hennepin County, Minnesota. In accordance with Section 306108 of the National Historic Preservation Act and its implementing regulations at 36 CFR Part 800, the 934 AW is advising Minnesota State Historic Preservation Office of this proposed undertaking. The following information is provided to assist you in your review.

County: Hennepin

City: Minneapolis

Street address: 760 Military Highway, Minneapolis, MN 55450-2100

Township/Range/Section: T28, R23W, Section 19

Nature of the project: New construction (1 facility), demolition (4 facilities)

Detailed description of project: Location of the project is entirely within the primary cantonment for the 934 AW, an 88-acre tract designated as "Area N", adjacent to the northern perimeter of the Minneapolis-St. Paul International Airport. Location maps are included as attachments to this letter. Project consists of construction of a new two-story administrative building on previously developed land, currently used as a parking lot. The site had a barracks building present on it during the mid-1940s. The project also includes demolition of existing Air Force facilities 725, 727, 729, and 852, all of which were constructed during 1942-1946.

The 934 AW has defined the Area of Potential Effect for this undertaking as the Area N property of MSP IAP ARS. The 934 AW previously conducted cultural resource surveys and evaluations of Area N, including evaluations of all buildings that are currently 50 or more years old. These surveys and evaluations have included the four specific buildings that would be demolished (725, 727, 729, 852). Documentation was submitted to the State Historic Preservation Office at the time the surveys/evaluations were conducted. The 934 AW concluded that there are no districts, sites, buildings, structures, or objects present within Area N that meet criteria to be eligible for the National Register of Historic Places. Concurrence by the Minnesota State Historic Preservation Office was documented in letters dated September 10, 1999 (SHPO Number 95-1349) and November 22, 2000 (SHPO Numbers 2001-0189 – 2001-0194).

There are also no known prehistoric or historic archaeological sites within Area N, nor are there any Native American burial sites, traditional cultural properties, or sacred sites present. Due to prior development of the specific sites proposed for construction and demolition, the potential for encountering human remains is negligible.

The nearest National Register properties are the Fort Snelling Historic District / National Historic Landmark, located approximately 0.75 mile to the east/southeast of the project location, and the Minnesota Soldiers' Home Historic District, approximately 1.0 mile to the north/northeast of the project location. The Old Fort Snelling State Historic District generally coincides with the Fort Snelling Historic District. Based on the characteristics of the undertaking, the distance from these historic properties, and the existing land use / human activity surrounding them, none of the historic properties listed here are considered to be within the undertaking's "Area of Potential Effect".

Pursuant to 36 CFR §800.4(d), the 934 AW has determined that no historic properties will be affected by the Mission Support Group Facility project. We request your comment and/or concurrence on this finding of *No Historic Properties Affected*.

The 934 AW is also preparing an Environmental Assessment (EA) under the National Environmental Policy Act to evaluate potential environmental impacts associated with the Mission Support Group Facility project. If your agency requests to be included in distribution of the draft EA, please indicate that request in your response. Any questions can be directed to me at (612) 713-1955, or via email to douglas.yocum@us.af.mil.

Sincerely,

DOUGLAS S. YOCUM

Chief, Environmental Flight

Douglas 5 your

Attachments:

Map 1 – USGS Topographic Map Excerpt with Project Location

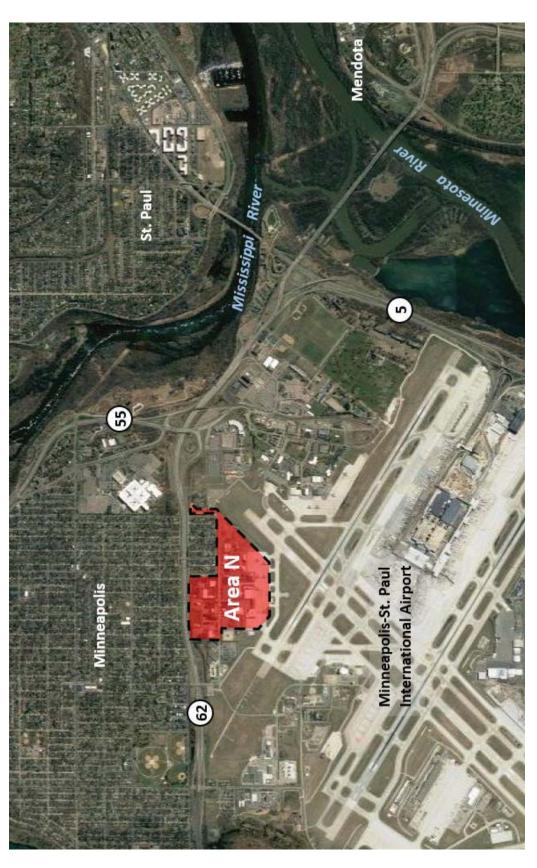
Map 2 – Area of Potential Effect for Mission Support Group Facility Project

Map 3 – Specific Project Sites for Mission Support Group Facility Project

O Interstate Route O U.S. Route O State Route ST PAUL WEST, MINN.
NWM ST EAUL IS QUADBANGLE
44093412-TF-024 1967 REVISED 1993 DMA 7373 1 NW - SERIES V872 Unimproved dirt. - Light-duty Revisions shown in purple and woodland compiled in cooperation with starfer of Minesota agencies from aerial photographs taken 1991 and other sources. Contours not revised. This information not field checked. Map odited 1993. Heavy-duty MINNESOTA MS MISSISSIPPI THIS MAP COMPLES WITH NATIONAL MAP ACCURACY STANDANDS POP SALE BY US, GEÇÜCGÜĞAL SINFOS DENVER COLORADO 80226, OR RESTON, VIRGINIA 2002 A FOLDER DESCRIBING TOROGRAPHIC MAPS AND SYMBOLS IS AVALLABLE ON REQUEST 0009 5000 CONTOUR INTERVAL 10 FEET NATIONAL GEODETIC VERTICAL DATUM OF 1929 4000 SCALE 1:24 000 INTERNATIONAL MIR MINNEAPOLIS ST 392*15. TATANTONIARSON SAN TO THE STATE OF T 93°15' 3.4 AM 52'30"-52 QL/s»

Map 1 - USGS Topographic Map Excerpt with Project Location

Project Location



934th Airlift Wing, US Air Force Reserve

Map 3 – Specific Project Sites for Mission Support Group Facility Project

New Building Construction Site

Building Demolition Sites

April 19, 2019

Douglas A Yocum
Department of the Air Force
Air Force Reserve Command
934 Airlift Wing
Civil Engineering Environmental Flight
760 Military Highway, Building 744
Minneapolis, MN 55450-2100

RE:

Demolition of four (4) buildings (725, 727, 729 & 852)

Construction of a new building (Mission Support Group Facility) Minneapolis –St. Paul International Airport Reserve Station

Minneapolis, Hennepin County SHPO Number: 2019-1121

Dear Mr. Yocum:

Thank you for the opportunity to comment on the above project. Information received in our office on 18 March 2019 has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by Section 106 of the National Historic Preservation Act of 1966 and implementing federal regulations at 36 CFR 800.

As we understand it, the United States Air Force Reserve's 934th Airlift Wing is proposing to construct a new administration facility and demolish 4 buildings at the Minneapolis-St. Paul International Airport Reserve Station. We have completed our review of your correspondence dated March 14, 2019 along with the documentation provided in regards to your agency's determination of the area of potential effect (APE) for the Federal undertaking. We agree that this APE determination is generally appropriate to take into account the potential direct and indirect effects of the proposed undertaking as we currently understand it. As the project's scope of work is further defined, or if it is significantly altered from the current scope, additional consultation with our office may be necessary in order to revise the current APE.

We have reviewed the documentation included with your March 14, 2019 submittal and we concur with your agency's determination that an archaeological survey is not warranted for this project as currently defined. Our office has previously concurred with your agency's determination that Buildings 725, 727, 729 and 852 are not eligible for listing in the National Register of Historic Places. Therefore, based on information that is available to us at this time, we concur with your agency's determination that **no historic properties will be affected** by the proposed project.

Please contact Kelly Gragg-Johnson, Environmental Review Specialist, at (651) 201-3285 or kelly.graggjohnson@state.mn.us if you have any questions regarding our review of this project.

Sincerely,

Sarang. Bannors

Sarah J. Beimers Environmental Review Program Manager

APPENDIX D

Air Conformity Applicability Model Report

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Instruction 32-7040, Air Quality Compliance And Resource Management; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

a. Action Location:

Base: MINNEAPOLIS-ST. PAUL JARS

County(s): Hennepin

Regulatory Area(s): Minneapolis-St Paul, MN

b. Action Title: Mission Support Group Facility

c. Project Number/s (if applicable): QJKL 090004

d. Projected Action Start Date: 1 / 2020

e. Action Description:

The need for the Proposed Action is to address deficiencies of usable space (i.e., facilities) available to house administrative functions of the 934 MSG, subordinate organizations, and select 934 AW direct-reporting staff agencies. (Throughout the remainder of this document, these are collectively referred to as simply 934 MSG). Existing facilities currently in use were originally constructed in 1942-1946, and are no longer suitable for meeting the operational needs of the 934 MSG. The facility currently being used to house 934 MSG was categorized by the Air Force as "substandard" as long ago as 1990, and all four facilities proposed for demolition were categorized by the Air Force as "semi-permanent" as long ago as 1996. The proposed action is Air Force project QJKL090004, which includes one facility construction component and four facility demolition components:

- Construction of a new two-story administrative building, with finished usable space totaling 22,575 square feet, on previously developed land on a military installation, within a setting similar to an industrial/business park.
- Demolition of existing Facility 852, a two-story building which totals 17,967 gross square feet (GSF), and which currently serves as administrative office space for MSG Command section; Financial Management section; Force Support Squadron; Military Personnel offices; Civilian Personnel offices; and Sustainment Services offices. This facility was originally constructed in 1942 and was used by the Navy as an "Instruction Building". It has been used for administrative office space by the 934 AW since 1970.
- Demolition of existing Facility 725, a two-story building which totals 2,389 GSF, and which currently serves as the wing's chapel; administrative office space for the chaplain; and office/storage space for the 934 AW Honor Guard. This facility was originally constructed in 1946 and was used by the Navy as a single-family housing unit until 2000. Since then, it has been used by the 934 AW as administrative office space.
- Demolition of existing Facility 727, a two-story building which totals 2,980 GSF, and which currently serves as administrative office space for the Airmen and Family Readiness Center, and Resiliency team/counseling functions. This facility was originally constructed in 1946 and was used by the Navy as a single-family housing unit until 2000. Since then, it has been used by the 934 AW as administrative office space.
- Demolition of existing Facility 729, a two-story building which totals 6,745 GSF, and which currently serves as administrative office space for the Contracting Flight; Central Region Recruiting office; and the AFGE Union local office. This facility was originally constructed in 1946 and was used by the Navy as a four-plex apartment housing unit until 2000. Since then, it has been used by the 934 AW as administrative office space

f. Point of Contact:

Name: Douglas S. Yocum

Title: Environmental Flight Chief
Organization: 934 MSG/CEV, USAFR
douglas.yocum@us.af.mil

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

Phone Number: 612-713-1955

2. Analysis: Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" and "steady state" (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are:	applicable
	X not applicable

Conformity Analysis Summary:

2020

2020									
Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY							
		Threshold (ton/yr)	Exceedance (Yes or No)						
Minneapolis-St Paul, MN									
VOC	0.642								
NOx	2.350								
CO	2.447	100	No						
SOx	0.005	100	No						
PM 10	1.493								
PM 2.5	0.110								
Pb	0.000								
NH3	0.002								
CO2e	516.5								

2021

====									
Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY							
		Threshold (ton/yr)	Exceedance (Yes or No)						
Minneapolis-St Paul, MN									
VOC	0.021								
NOx	0.148								
CO	0.113	100	No						
SOx	0.015	100	No						
PM 10	0.021								
PM 2.5	0.021								
Pb	0.000								
NH3	0.000								
CO2e	103.3	·							

2022 - (Steady State)

Pollutant	Action Emissions (ton/ym)		CONFORMITY
Ponutant	Action Emissions (ton/yr)	GENERAL C	ONFORMITY
		Threshold (ton/yr)	Exceedance (Yes or No)
Minneapolis-St Paul, MN			
VOC	0.021		
NOx	0.148		
CO	0.113	100	No
SOx	0.015	100	No
PM 10	0.021		
PM 2.5	0.021		
Pb	0.000		
NH3	0.000		
CO2e	103.3	·	

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.

YOCUM.DOUGLAS.S.1229106500

Digitally signed by YOCUM.DOUGLAS.S.1229106500 Date: 2019.03.11 12:39:42 -05'00'

Douglas S. Yocum, Environmental Flight Chief

DATE

1. General Information

- Action Location

Base: MINNEAPOLIS-ST. PAUL JARS

County(s): Hennepin

Regulatory Area(s): Minneapolis-St Paul, MN

- Action Title: Mission Support Group Facility

- Project Number/s (if applicable): QJKL 090004

- Projected Action Start Date: 1 / 2020

- Action Purpose and Need:

The purpose of the proposed action is to provide the 934 AW with a modern, state-of-the-art facility within the secure setting of a controlled-access military installation, to house administrative functions of the 934th Mission Support Group (934 MSG) and select 934 AW direct-reporting staff agencies; and to then eliminate obsolete, outdated facilities that would no longer be needed.

- Action Description:

The need for the Proposed Action is to address deficiencies of usable space (i.e., facilities) available to house administrative functions of the 934 MSG, subordinate organizations, and select 934 AW direct-reporting staff agencies. (Throughout the remainder of this document, these are collectively referred to as simply 934 MSG). Existing facilities currently in use were originally constructed in 1942-1946, and are no longer suitable for meeting the operational needs of the 934 MSG. The facility currently being used to house 934 MSG was categorized by the Air Force as "substandard" as long ago as 1990, and all four facilities proposed for demolition were categorized by the Air Force as "semi-permanent" as long ago as 1996.

The proposed action is Air Force project QJKL090004, which includes one facility construction component and

The proposed action is Air Force project QJKL090004, which includes one facility construction component and four facility demolition components:

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- Demolition of existing Facility 852, a two-story building which totals 17,967 gross square feet (GSF), and which currently serves as administrative office space for MSG Command section; Financial Management section; Force Support Squadron; Military Personnel offices; Civilian Personnel offices; and Sustainment Services offices. This facility was originally constructed in 1942 and was used by the Navy as an "Instruction Building". It has been used for administrative office space by the 934 AW since 1970.
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- Demolition of existing Facility 727, a two-story building which totals 2,980 GSF, and which currently serves as administrative office space for the Airmen and Family Readiness Center, and Resiliency team/counseling functions. This facility was originally constructed in 1946 and was used by the Navy as a single-family housing unit until 2000. Since then, it has been used by the 934 AW as administrative office space.
- Demolition of existing Facility 729, a two-story building which totals 6,745 GSF, and which currently serves as administrative office space for the Contracting Flight; Central Region Recruiting office; and the AFGE Union local office. This facility was originally constructed in 1946 and was used by the Navy as a four-plex apartment housing unit until 2000. Since then, it has been used by the 934 AW as administrative office space

- Point of Contact

Name: Douglas S. Yocum

Title: Environmental Flight Chief **Organization:** 934 MSG/CEV, USAFR

Email: douglas.yocum@us.af.mil

Phone Number: 612-713-1955

- Activity List:

	Activity Type	Activity Title
2.	Construction / Demolition	QJKL 090004 - Mission Support Group Facility
3.	Heating	Facility Heating - Proposed New MSG Facility
4.	Emergency Generator	Emergency Generator for Proposed New MSG Facility

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location

County: Hennepin

Regulatory Area(s): Minneapolis-St Paul, MN

- Activity Title: QJKL 090004 - Mission Support Group Facility

- Activity Description:

- Construction of a new two-story administrative building, with finished usable space totaling 22,575 square feet.
- Demolition of existing Facility 852, a two-story building which totals 17,967 gross square feet (GSF).
- Demolition of existing Facility 725, a two-story building which totals 2,389 GSF.
- Demolition of existing Facility 727, a two-story building which totals 2,980 GSF.
- Demolition of existing Facility 729, a two-story building which totals 6,745 GSF.

- Activity Start Date

Start Month: 1 Start Month: 2020

- Activity End Date

Indefinite: False
End Month: 12
End Month: 2020

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.641594
SO_x	0.005326
NO_x	2.349987
CO	2.447114
PM 10	1.493302

Pollutant	Total Emissions (TONs)
PM 2.5	0.109664
Pb	0.000000
NH ₃	0.002035
CO ₂ e	516.5

2.1 Demolition Phase

2.1.1 Demolition Phase Timeline Assumptions

- Phase Start Date

Start Month: 11 Start Quarter: 1 Start Year: 2020

- Phase Duration

Number of Month: 2 Number of Days: 0

2.1.2 Demolition Phase Assumptions

- General Demolition Information

Area of Building to be demolished (ft²): 30081 Height of Building to be demolished (ft): 30

- Default Settings Used: Yes

- Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default) Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Demolition Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

				,					
Concrete/Industrial Saws Composite									
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0483	0.0006	0.3409	0.3782	0.0195	0.0195	0.0043	58.572	
Rubber Tired Dozers Composite									
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.2117	0.0024	1.5772	0.8005	0.0630	0.0630	0.0191	239.56	
Tractors/Loaders/Backhoes Composite									
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0436	0.0007	0.2744	0.3616	0.0134	0.0134	0.0039	66.897	

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.337	000.002	000.242	003.710	000.011	000.010		000.023	00321.584
LDGT	000.406	000.003	000.412	004.950	000.014	000.012		000.024	00413.839
HDGV	000.721	000.005	001.047	015.407	000.029	000.026		000.045	00753.712

LDDV	000.137	000.003	000.133	002.370	000.004	000.004	000.008	00308.959
LDDT	000.275	000.004	000.378	004.038	000.007	000.006	000.008	00438.560
HDDV	000.429	000.013	004.596	001.558	000.163	000.150	000.027	01446.926
MC	002.271	000.003	000.805	013.829	000.029	000.026	000.054	00399.300

2.1.4 Demolition Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (0.00042 * BA * BH) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

0.00042: Emission Factor (lb/ft3)

BA: Area of Building to be demolished (ft²) BH: Height of Building to be demolished (ft) 2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour) 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building being demolish (ft²)

BH: Height of Building being demolish (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

0.25: Volume reduction factor (material reduced by 75% to account for air space)

HC: Average Hauling Truck Capacity (yd3)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.2 Site Grading Phase

2.2.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 1 Start Quarter: 1 Start Year: 2020

- Phase Duration

Number of Month: 1 **Number of Days:** 0

2.2.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 60000 Amount of Material to be Hauled On-Site (yd³): 0 Amount of Material to be Hauled Off-Site (yd³): 200

- Site Grading Default Settings

Default Settings Used: Yes **Average Day(s) worked per week:** 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

- worker in	ips venicie ivi	ixture (70)					
	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC

POVs	50.00	50.00	0	0	0	0	0

2.2.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite											
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0919	0.0014	0.5823	0.5765	0.0280	0.0280	0.0082	132.95			
Other Construction Equipment Composite											
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0562	0.0012	0.3519	0.3508	0.0138	0.0138	0.0050	122.62			
Rubber Tired Dozers	s Composite	•									
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.2117	0.0024	1.5772	0.8005	0.0630	0.0630	0.0191	239.56			
Tractors/Loaders/Backhoes Composite											
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0436	0.0007	0.2744	0.3616	0.0134	0.0134	0.0039	66.897			

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	СО	PM 10	PM 2.5	Pb	NH ₃	CO_2e
LDGV	000.337	000.002	000.242	003.710	000.011	000.010		000.023	00321.584
LDGT	000.406	000.003	000.412	004.950	000.014	000.012		000.024	00413.839
HDGV	000.721	000.005	001.047	015.407	000.029	000.026		000.045	00753.712
LDDV	000.137	000.003	000.133	002.370	000.004	000.004		000.008	00308.959
LDDT	000.275	000.004	000.378	004.038	000.007	000.006		000.008	00438.560
HDDV	000.429	000.013	004.596	001.558	000.163	000.150		000.027	01446.926
MC	002.271	000.003	000.805	013.829	000.029	000.026		000.054	00399.300

2.2.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (20 * ACRE * WD) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days) 2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour) 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

 VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles) HA_{OnSite} : Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.3 Trenching/Excavating Phase

2.3.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 2 Start Quarter: 1 Start Year: 2020

- Phase Duration

Number of Month: 1 Number of Days: 0

2.3.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 60000 Amount of Material to be Hauled On-Site (yd³): 0 Amount of Material to be Hauled Off-Site (yd³): 50

- Trenching Default Settings

Default Settings Used: Yes **Average Day(s) worked per week:** 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of	Hours Per Day
	Equipment	
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.3.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite											
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0919	0.0014	0.5823	0.5765	0.0280	0.0280	0.0082	132.95			
Other Construction Equipment Composite											
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0562	0.0012	0.3519	0.3508	0.0138	0.0138	0.0050	122.62			
Rubber Tired Dozers	Composite	•									
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.2117	0.0024	1.5772	0.8005	0.0630	0.0630	0.0191	239.56			
Tractors/Loaders/Backhoes Composite											
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0436	0.0007	0.2744	0.3616	0.0134	0.0134	0.0039	66.897			

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.337	000.002	000.242	003.710	000.011	000.010		000.023	00321.584
LDGT	000.406	000.003	000.412	004.950	000.014	000.012		000.024	00413.839
HDGV	000.721	000.005	001.047	015.407	000.029	000.026		000.045	00753.712
LDDV	000.137	000.003	000.133	002.370	000.004	000.004		000.008	00308.959
LDDT	000.275	000.004	000.378	004.038	000.007	000.006		000.008	00438.560
HDDV	000.429	000.013	004.596	001.558	000.163	000.150		000.027	01446.926
MC	002.271	000.003	000.805	013.829	000.029	000.026		000.054	00399.300

2.3.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

 $PM10_{FD} = (20 * ACRE * WD) / 2000$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days) 2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour) 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles) HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³) HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.4 Building Construction Phase

2.4.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 3 Start Quarter: 1 Start Year: 2020

- Phase Duration

Number of Month: 10 Number of Days: 0

2.4.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial

Area of Building (ft²): 22575 Height of Building (ft): 30 Number of Units: N/A

- Building Construction Default Settings

Default Settings Used: Yes **Average Day(s) worked per week:** 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of	Hours Per Day
	Equipment	
Cranes Composite	1	6
Forklifts Composite	2	6
Generator Sets Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8
Welders Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

- Vendor Trips

Average Vendor Round Trip Commute (mile): 40 (default)

- Vendor Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.4.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Cranes Composite		· · · · · · · · · · · · · · · · · · ·									
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0898	0.0013	0.6610	0.3917	0.0256	0.0256	0.0081	128.83			
Forklifts Composite											
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0320	0.0006	0.1690	0.2160	0.0070	0.0070	0.0028	54.467			
Generator Sets Comp	Generator Sets Composite										
	VOC	SO _x	NO_x	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0395	0.0006	0.3232	0.2731	0.0149	0.0149	0.0035	61.081			
Tractors/Loaders/Ba	ckhoes Con	nposite									
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0436	0.0007	0.2744	0.3616	0.0134	0.0134	0.0039	66.897			
Welders Composite											
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e			
Emission Factors	0.0310	0.0003	0.1734	0.1816	0.0102	0.0102	0.0027	25.672			

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.337	000.002	000.242	003.710	000.011	000.010		000.023	00321.584
LDGT	000.406	000.003	000.412	004.950	000.014	000.012		000.024	00413.839
HDGV	000.721	000.005	001.047	015.407	000.029	000.026		000.045	00753.712
LDDV	000.137	000.003	000.133	002.370	000.004	000.004		000.008	00308.959
LDDT	000.275	000.004	000.378	004.038	000.007	000.006		000.008	00438.560
HDDV	000.429	000.013	004.596	001.558	000.163	000.150		000.027	01446.926
MC	002.271	000.003	000.805	013.829	000.029	000.026		000.054	00399.300

2.4.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour)

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = BA * BH * (0.42 / 1000) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²) BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

2000: Conversion Factor pounds to tons

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%)

- Vender Trips Emissions per Phase

 $VMT_{VT} = BA * BH * (0.38 / 1000) * HT$

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles)

BA: Area of Building (ft²) BH: Height of Building (ft)

(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VT}: Vender Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.5 Architectural Coatings Phase

2.5.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 11 Start Quarter: 1 Start Year: 2020

- Phase Duration

Number of Month: 1 **Number of Days:**

2.5.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category:

Total Square Footage (ft²): 22575 **Number of Units:** N/A

- Architectural Coatings Default Settings

Default Settings Used: Yes **Average Day(s) worked per week:** 5 (default)

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.5.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
LDGV	000.337	000.002	000.242	003.710	000.011	000.010		000.023	00321.584
LDGT	000.406	000.003	000.412	004.950	000.014	000.012		000.024	00413.839
HDGV	000.721	000.005	001.047	015.407	000.029	000.026		000.045	00753.712
LDDV	000.137	000.003	000.133	002.370	000.004	000.004		000.008	00308.959
LDDT	000.275	000.004	000.378	004.038	000.007	000.006		000.008	00438.560
HDDV	000.429	000.013	004.596	001.558	000.163	000.150		000.027	01446.926
MC	002.271	000.003	000.805	013.829	000.029	000.026		000.054	00399.300

2.5.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

 $VMT_{WT} = (1 * WT * PA) / 800$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

1: Conversion Factor man days to trips (1 trip / 1 man * day)

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft²)

800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

 $VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)

BA: Area of Building (ft²)

2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)

0.0116: Emission Factor (lb/ft²)

2000: Conversion Factor pounds to tons

2.6 Paving Phase

2.6.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 10 Start Quarter: 1 Start Year: 2020

- Phase Duration

Number of Month: 1 **Number of Days:** 0

2.6.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 10000

- Paving Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cement and Mortar Mixers Composite	4	6
Pavers Composite	1	7
Rollers Composite	1	7
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.6.3 Paving Phase Emission Factor(s)

- Construction Exhaust Emission Factors (lb/hour) (default)

Graders Composite									
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors	0.0919	0.0014	0.5823	0.5765	0.0280	0.0280	0.0082	132.95	
Other Construction 1	Other Construction Equipment Composite								
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e	
Emission Factors 0.0562 0.0012 0.3519 0.3508 0.0138 0.0138 0.0050 122.62									
Rubber Tired Dozers Composite									

	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.2117	0.0024	1.5772	0.8005	0.0630	0.0630	0.0191	239.56
Tractors/Loaders/Backhoes Composite								
	VOC	SO _x	NOx	CO	PM 10	PM 2.5	CH ₄	CO ₂ e
Emission Factors	0.0436	0.0007	0.2744	0.3616	0.0134	0.0134	0.0039	66.897

- Vehicle Exhaust & Worker Trips Emission Factors (grams/mile)

	VOC	SO _x	NO _x	СО	PM 10	PM 2.5	Pb	NH ₃	CO_2e
LDGV	000.337	000.002	000.242	003.710	000.011	000.010		000.023	00321.584
LDGT	000.406	000.003	000.412	004.950	000.014	000.012		000.024	00413.839
HDGV	000.721	000.005	001.047	015.407	000.029	000.026		000.045	00753.712
LDDV	000.137	000.003	000.133	002.370	000.004	000.004		000.008	00308.959
LDDT	000.275	000.004	000.378	004.038	000.007	000.006		000.008	00438.560
HDDV	000.429	000.013	004.596	001.558	000.163	000.150		000.027	01446.926
MC	002.271	000.003	000.805	013.829	000.029	000.026		000.054	00399.300

2.6.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

 $CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

EF_{POL}: Emission Factor for Pollutant (lb/hour) 2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

 $VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft²)

0.25: Thickness of Paving Area (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³) HT: Average Hauling Truck Round Trip Commute (mile/trip)

 $V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

 $VMT_{WT} = WD * WT * 1.25 * NE$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

 $V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Worker Trips Vehicle Miles Travel (miles) 0.002205: Conversion Factor grams to pounds EF_{POL}: Emission Factor for Pollutant (grams/mile) VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Off-Gassing Emissions per Phase

 $VOC_P = (2.62 * PA) / 43560$

VOC_P: Paving VOC Emissions (TONs)

2.62: Emission Factor (lb/acre)

PA: Paving Area (ft²)

43560: Conversion Factor square feet to acre (43560 ft2 / acre)² / acre)

3. Heating

3.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Hennepin

Regulatory Area(s): Minneapolis-St Paul, MN

- Activity Title: Facility Heating - Proposed New MSG Facility

- Activity Description:

Natural gas-fired heating for proposed new two-story administrative building, with finished usable space totaling 22,575 square feet.

- Activity Start Date

Start Month: 1 Start Year: 2021

- Activity End Date

Indefinite: Yes End Month: N/A End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.004352
SO_x	0.000475
NO _x	0.079120
CO	0.066461
PM 10	0.006013

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.006013
Pb	0.000000
NH ₃	0.000000
CO ₂ e	95.3

3.2 Heating Assumptions

- Heating

Heating Calculation Type: Heat Energy Requirement Method

- Heat Energy Requirement Method

Area of floorspace to be heated (ft²):

Type of fuel:

22575

Natural Gas

Type of boiler/furnace: Commercial/Institutional (0.3 - 9.9 MMBtu/hr)

Heat Value (MMBtu/ft³): 0.00105 Energy Intensity (MMBtu/ft²): 0.0736

- Default Settings Used: Yes

- Boiler/Furnace Usage

Operating Time Per Year (hours): 900 (default)

3.3 Heating Emission Factor(s)

- Heating Emission Factors (lb/1000000 scf)

 			,					
VOC	SO_x	NOx	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
5.5	0.6	100	84	7.6	7.6			120390

3.4 Heating Formula(s)

- Heating Fuel Consumption ft³ per Year

 $FC_{HER} = HA * EI / HV / 1000000$

FC_{HER}: Fuel Consumption for Heat Energy Requirement Method

HA: Area of floorspace to be heated (ft²) EI: Energy Intensity Requirement (MMBtu/ft²)

HV: Heat Value (MMBTU/ft³) 1000000: Conversion Factor

- Heating Emissions per Year

 $HE_{POL} = FC * EF_{POL} / 2000$

HE_{POL}: Heating Emission Emissions (TONs)

FC: Fuel Consumption

EF_{POL}: Emission Factor for Pollutant 2000: Conversion Factor pounds to tons

4. Emergency Generator

4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Hennepin

Regulatory Area(s): Minneapolis-St Paul, MN

- Activity Title: Emergency Generator for Proposed New MSG Facility

- Activity Description:

Emergency Generator for Proposed New MSG Facility. Routine monthly scheduled maintenance tests, and periodic emergency operation during unscheduled power outages.

- Activity Start Date

Start Month: 1 Start Year: 2021

- Activity End Date

Indefinite: Yes End Month: N/A End Year: N/A

- Activity Emissions:

Pollutant	Emissions Per Year (TONs)
VOC	0.016824
SO_x	0.014171
NO_x	0.069345
CO	0.046310
PM 10	0.015135

Pollutant	Emissions Per Year (TONs)
PM 2.5	0.015135
Pb	0.000000
NH ₃	0.000000
CO ₂ e	8.0

4.2 Emergency Generator Assumptions

- Emergency Generator

Type of Fuel used in Emergency Generator: Diesel Number of Emergency Generators: 1

- Default Settings Used: No

- Emergency Generators Consumption

Emergency Generator's Horsepower: 402 Average Operating Hours Per Year (hours): 30

4.3 Emergency Generator Emission Factor(s)

- Emergency Generators Emission Factor (lb/hp-hr)

	,			,				
VOC	SO _x	NOx	CO	PM 10	PM 2.5	Pb	NH ₃	CO ₂ e
0.00279	0.00235	0.0115	0.00768	0.00251	0.00251			1.33

4.4 Emergency Generator Formula(s)

- Emergency Generator Emissions per Year

 $AE_{POL} = (NGEN * HP * OT * EF_{POL}) / 2000$

AE_{POL}: Activity Emissions (TONs per Year) NGEN: Number of Emergency Generators HP: Emergency Generator's Horsepower (hp) OT: Average Operating Hours Per Year (hours) EF_{POL}: Emission Factor for Pollutant (lb/hp-hr)