Metropolitan Airports Commission
6040 28th Avenue South, Minneapolis, MN 55450-2799 • 612-726-8100 • metroairports.org

October 14, 2019

RE: Environmental Review Process
Metropolitan Airports Commission
MAC 2020-2026 Capital Improvement Program

Dear Interested Parties:

In accordance with the requirements of Minnesota Statutes, Section 473.614, the Metropolitan Airports Commission (MAC) is required to complete an Assessment of Environmental Effects (AOEE) for projects in the Commission's seven-year (2020-2026) Capital Improvement Program (CIP) for airports included in its system.

An Environmental Assessment Worksheet (EAW), Environmental Assessment (EA), or Environmental Impact Statement (EIS) has been previously prepared and a public hearing held for each Minneapolis-St. Paul International Airport and Reliever Airport project in the 2020-2026 CIP that requires an EAW under Section 473.614. An assessment of the cumulative environmental effects of CIP projects at each affected airport in the system is presented in the AOEE.

A copy of the AOEE may be downloaded from the Internet at:
https://metroairports.org/airport-authority/metropolitan-airports-commission/administration/publications.

Additionally, a copy of the AOEE may be obtained by contacting Jenn Felger, Metropolitan Airports Commission, 6040 28th Avenue South, Minneapolis, MN 55450; 612-726-8189. Comments on the AOEE can be given at a public hearing to be held on Monday, November 4, 2019 at 10:30 a.m. in room 3048A , Mezzanine Level, Terminal 1-Lindbergh, Minneapolis-St. Paul International Airport or in writing to Jenn Felger at 6040 28th Avenue South, Minneapolis, MN 55450. Comments on the AOEE must be received by the close of business on Tuesday, November 12, 2019.

Sincerely,

Bridget M. Rief
Vice President, Planning & Development

BMR/lrk

c: Heather Leide, MAC
Jenn Felger, MAC
CIP file

Metropolitan Airports Commission

2020–2026 Capital Improvement Program Assessment of Environmental Effects (AOEE)

Date: Published October 14, 2019

Minneapolis-St. Paul International • Airlake • Anoka County-Blaine • Crystal • Flying Cloud • Lake Elmo • St. Paul Downtown

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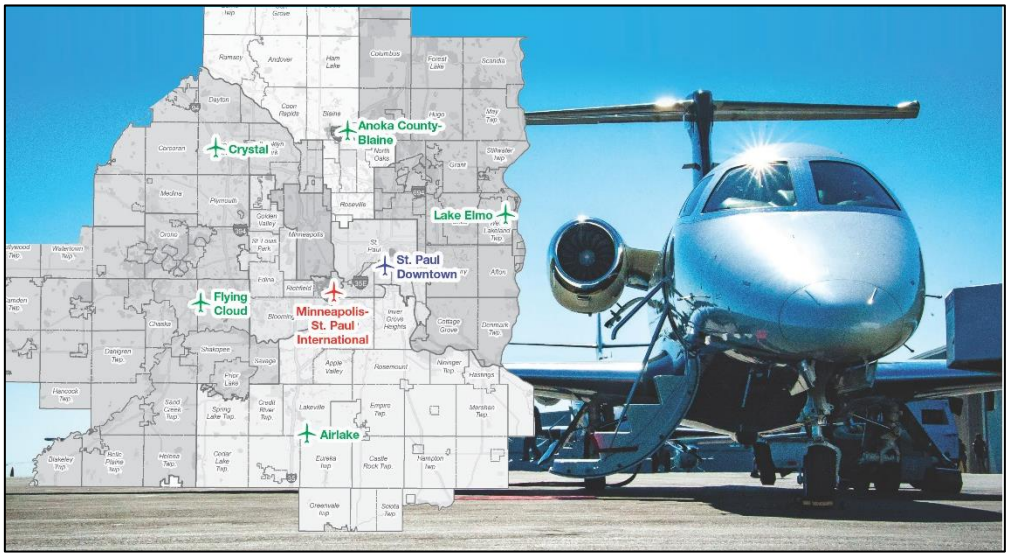
1.0 INTRODUCTION

The Metropolitan Airports Commission (MAC) is a public corporation founded by the Minnesota Legislature in 1943 to promote aviation in Minnesota. The MAC oversees coordinated air service throughout the Twin Cities Metro Area through its system of seven airports, including the Minneapolis-St. Paul International Airport (MSP) and six reliever airports. MSP is a public use large hub international airport owned and operated by the MAC. MSP is located south of downtown Minneapolis near the confluence of the Minnesota and Mississippi Rivers and covers approximately 3,400 acres. Of the two terminals at MSP, Terminal 1 is the larger of the two terminals and last year accounted for nearly 88% of passenger enplanements. In 2018 more than 38 million passengers traveled through MSP, slightly edging out the previous year's historical high total. This included approximately 1,100 operations (take-offs and landings) daily.

The MAC's six reliever airports play a vital role in both providing easy access to business and communities throughout the metropolitan area and offering an attractive alternative to MSP for private pilots.



For more than 75 years, the MAC has worked to promote safe, efficient, environmentally responsible air transportation services for the Minneapolis – St. Paul metropolitan area. In the process, our airports have been key economic drivers for the area economy, generating nearly $16 billion in total economic output and supporting approximately 87,000 jobs.

Each year, the MAC prepares a seven-year Capital Improvement Program (CIP). A preliminary version of the CIP is adopted by the Commission in September. The purpose for providing the Commission with a preview of the CIP is twofold. First, it gives the Commission an opportunity to consider the projects proposed by MAC staff in the upcoming years. Second, it provides a list of projects that the public may review as a part of this Assessment of Environmental Effects (AOEE) process.

Upon completion of this AOEE process, which includes a public hearing, the Commission will adopt a final version of the CIP in December.

On September 23, 2019, the MAC Commission adopted the Preliminary 2020–2026 CIP (shown in Appendix A). This AOEE report is prepared in accordance with the requirements of Minnesota Statutes 1986, Section 473.614, as amended in 1988 and 1996. It presents an assessment of the potential environmental effects of projects in the MAC preliminary seven-year CIP from 2020 to 2026 for each MAC-owned airport. Under Minnesota law, the MAC is required to "examine the cumulative environmental effects at each airport of projects at that airport (in the seven-year CIP), considered collectively."

St. Paul Downtown Airport

Most of the projects in the CIP involve replacement and maintenance/upgrades of existing facilities and assets. Some projects involve primarily information technology (IT) upgrades, and others include rehabilitation and/or upgrades to tenant facilities. These projects will not affect use of the facilities and therefore, will not add to or subtract from, cumulative environmental effects.

Minnesota Statutes Section 473.614 also requires the preparation of an Environmental Assessment Worksheet (EAW) under the Minnesota Environmental Policy Act (MEPA) for projects that meet all of the following conditions:

1. The project is scheduled in the CIP for the first CIP calendar year (2020 for this AOEE);
2. The project is located at MSP and is anticipated to cost $5 million or more, or the project is located at one of the Reliever Airports and estimated to cost $2 million or more;
3. The project involves the construction of:
    a. A new or expanded structure for handling passengers, cargo, vehicles or aircraft; or
    b. A new runway or taxiway, or the extension of an existing runway or taxiway.

An EAW or Environmental Impact Statement (EIS) has been prepared for all projects scheduled to be implemented in 2020 that meet the above three conditions in Minnesota Statutes Section 473.614 for a mandatory EAW.

This AOEE report analyzes each airport in the order in which the projects are presented in the CIP. Appendix A lists all projects included in the preliminary seven-year CIP (2020–2026). The notes in the table explain the type of work for each proposed project and why the work may or may not have a potential effect on the environment. Appendix B provides a more detailed description for each project included in the first year (2020) of the preliminary CIP. Appendix C includes a draft description for projects in years 2021 through 2026 that meet the above three conditions in Minnesota Statutes Section 473.614 for a mandatory EAW.

2.0 MINNEAPOLIS-ST. PAUL INTERNATIONAL AIRPORT (MSP)

MSP is situated approximately seven miles south of downtown Minneapolis, Minnesota and seven miles southwest of downtown St. Paul, Minnesota. MSP is not part of any city but is surrounded by Minneapolis, St. Paul and the suburban cities of Bloomington, Eagan, Mendota Heights, and Richfield.

The MSP airfield consists of four runways. Runway 12L-30R and Runway 17-35 are both 8,000 feet long. Runway 12R-30L is 10,000 feet long. And the crosswind Runway 4-22 is 11,000 feet long. There are multiple instrument approaches and an air traffic control tower.

Jet Blue launched service in May 2018, capping a 10-year effort to bring the low-cost air carrier to the Minneapolis-St. Paul market. MSP is Delta Air Line's second largest hub, the home base for Sun Country, and an operations site for nearly every domestic carrier and a growing number of international airlines.

Water Cannon Welcome

Passenger levels climbed to another record high in 2018, with 38,037,381 total travelers flying to or from MSP. In 2018, airlines offered non-stop service to more than 160 destinations from MSP: 137 domestic and 29 international. Multiple airlines served 58 of those routes helping to keep fares competitive.

Aircraft landings and takeoffs were down 2.1 percent from 2017 as major airlines continue to add aircraft seats and shift to larger aircraft, enabling them to meet demand with fewer operations.

2.1 MSP LONG-TERM PLAN STATUS

MAC has started developing the 2020-2040 Long Term Plan (LTP) for MSP. The planning process includes forecasting for passenger levels and aircraft operations, an airfield capacity study, a review of the facility inventory and identification of service gaps, development of alternatives to meet facility needs, and a robust stakeholder engagement program. By utilizing the latest operational procedures and modeling tools, MAC will gain a fresh perspective on airfield performance.

The planning process will evaluate when facility improvements are needed to accommodate projected demand in a manner that is safe, efficient, orderly and cost-effective and in a way that maintains and enhances customer service. The LTP will not authorize construction or improvements to facilities. Nor does it serve as the basis for determining eligibility for noise mitigation programs. Rather, it helps the MAC better understand and plan for future facility needs.

The MAC website: https://www.mspairport.com/long-term-plan contains information related to the LTP process.

2.2 MSP ENVIRONMENTAL STUDIES

Under the MEPA, an EAW or EIS must assess cumulative potential environmental effects. A cumulative potential effect under MEPA is a consequence on the environment that could result from the incremental potential effect from projects under review in addition to other projects in the environmentally relevant area that might reasonably be expected to affect the same environmental resources. In other words, the cumulative potential effects analysis examines whether the incremental effects of a proposed project, combined with other projects in the same geographic area and taking place over the same time period, will have a significant effect on the same environmental resources.

In September 2010, the MAC and the Federal Aviation Administration (FAA) began preparation of the MSP 2020 Improvements EA/EAW, which was a joint document satisfying both MEPA and National Environmental Policy Act (NEPA) requirements for the projects the MAC may implement at MSP through the year 2020 as outlined in the 2010 LTCP.

In March 2013, the FAA determined that the MSP 2020 Improvements EA/EAW was adequate under NEPA and issued a Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for the projects analyzed in the document. In April 2013, the MAC concluded that the MSP 2020 Improvements EA/EAW was adequate under MEPA and issued an Adequacy Determination and Negative Declaration on the need for an EIS for the projects analyzed in the document.

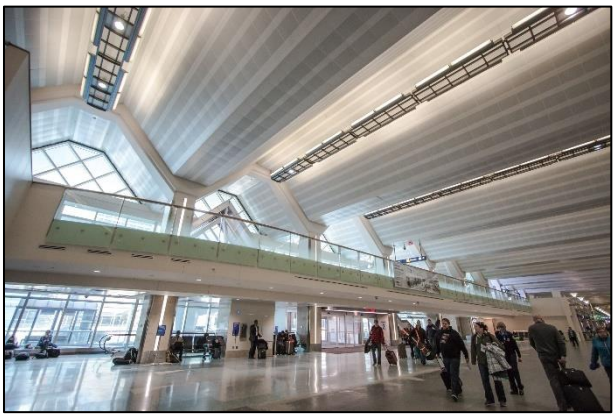
Projects listed in the year 2020 that meet the criteria for the preparation of an EAW, as well as those that were included in the MSP 2020 Improvements EA/EAW review, are shown in Table 2-1 on Page 6.

2.3 MSP Projects Requiring Preparation of an Environmental Assessment Worksheet

Of all the projects listed for the year 2020 at MSP, there are only two listed in the Preliminary 2020-2026 CIP that meet the criteria in Minnesota Statutes Section 473.614 for the preparation of a mandatory EAW: the Baggage Claim/Ticket Lobby Operational Improvements and the Concourse G Infill and Delta Sky Club project. These projects are scheduled for 2020, exceed $5 million, and involve a new or expanded structure for handling passengers, cargo, vehicles or aircraft. See Table 2-1. The MSP 2020 Improvements EA/EAW, which the MAC completed in 2013, analyzed one of those two projects; a stand-alone EAW was recently completed for the other.

Baggage Claim/Ticket Lobby Operational Improvements

The Terminal 1 Operational Improvements program, which began in 2016, continues in 2020 with ticket counter consolidations, airline ticket offices, centralized meet and greet areas, improved vestibules and access, new elevators and escalators, east mezzanine removal/reduction, curtain wall replacement, unclaimed baggage storage, baggage service offices, concessions (food & beverage and retail), improved lighting and sight lines, curbside lighting, and construction of new restrooms in order to allow future phases to demolish the existing old and outdated restrooms.



MSP Operational Improvements

Concourse G Infill and Delta Sky Club

This project includes a modest expansion/redevelopment of Concourse G and the construction of a shell space for a future Delta Sky Club development above the Concourse G main level. This project does not include new aircraft gates, although the existing Gate G17 will be relocated to a new boarding location within the newly expanded Concourse G gatehold space. The expansion includes an infill between the existing Pod 4 and Pod 5 of the G Concourse. The redevelopment will include new and upgraded restrooms, new moving walkways, new mechanical rooms and air handling equipment, redevelopment of concessions space and miscellaneous relocation of tenant space within the project footprint. Delta Air Lines will complete the build out and finishes for their new Sky Club.

Concourse G Infill and Delta Sky Club Rendering

Table 2-1
MSP Projects in the CIP that Require a Mandatory EAW

Project (All located at Terminal 1)	CIP Year Proposed	EAW Status
Baggage Claim/Ticket Lobby Operational Improvements	2020	MSP 2020 Improvements EA/EAW Completed in 2013
Concourse G Expansion and Delta Sky Club	2020	EAW Completed in 2019
Baggage Claim/Ticket Lobby Operational Improvements	2021	Included in MSP 2020 Improvements EA/EAW
Baggage Handling System	2021	Included in MSP 2020 Improvements EA/EAW
Baggage Claim/Ticket Lobby Operational Improvements	2022	Included in MSP 2020 Improvements EA/EAW
FIS Recheck Operational Improvements	2022	Included in MSP 2020 Improvements EA/EAW
Runway 30R Parallel Taxiway	2022	EAW Required
Baggage Claim/Ticket Lobby Operational Improvements	2023	Included in MSP 2020 Improvements EA/EAW
Runway 30R Parallel Taxiway	2024	EAW Required
Runway 30R Parallel Taxiway	2026	EAW Required

With two exceptions, all MSP projects/programs in the 2020-2026 CIP that meet the requirements in Minnesota Statutes Section 473.614 for preparation of a mandatory EAW were analyzed in the MSP 2020 Improvements EA/EAW, which MAC completed in 2013. One exception is the newly proposed Concourse G Expansion and Delta Sky Club project, shown in the CIP in 2020. The MAC completed an EAW on the project earlier in 2019 so that construction of the project may proceed in 2020.

The other project is a new project in the CIP titled "Runway 30L Parallel Taxiway". MAC is still determining the feasibility of this project; however, if it does proceed, an EAW will be necessary as it would be a completely new taxiway and will exceed the EAW criteria dollar amount. At this point, it is proposed to be constructed in phases, but only one EAW would be prepared for the project as a whole.

Of additional note, a new project is listed in the CIP in 2025 and 2026 for tram replacement at MSP. At this point, the scope is envisioned to replace the existing tram systems with a similar type of tram system. Based on this, the project would not meet the criteria for a mandatory EAW. If the MSP LTP or other future study reveals a preferred alternative that involves major modifications or different alignments for the tram systems, the need for environmental review would be determined then.

Locations for Projects listed in Table 2-1

2.4 MSP Cumulative Potential Environmental Effects

Under Minnesota Statutes Section 473.614, the MAC must examine the cumulative environmental effects of projects at each airport in the proposed CIP, considered collectively. Aside from those listed in Table 2-1, all other MSP projects listed in the CIP involve end-of-life replacement and maintenance/upgrades of existing MAC facilities and assets, information technology (IT) upgrades, residential home noise mitigation, or rehabilitation of tenant facilities. While many MSP projects in the capital program exceed the $5 million threshold, only those listed in Table 2-1 meet the criteria for preparation of a mandatory EAW under Minnesota Statutes Section 473.614.

Although some of the MSP projects may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at MSP.

The EAW documents that have been completed for MSP projects indicate that the potential for adverse cumulative effects from the projects when considered in conjunction with past, present and future projects is insignificant; or, that no single impact even when considered with past, present and future projects represents a substantial impact that cannot be mitigated and therefore, none of the proposed projects would result in significant cumulative impacts.

Terminal 1 Exit Monumentation

3.0 ST. PAUL DOWNTOWN AIRPORT (STP)

St. Paul Downtown Airport is the only reliever airport in the MAC system with a runway longer than 5,000-feet. As such, the airport is a popular draw for larger corporate jet aircraft. Of the airport's three runways, Runway 14-32 is the longest at 6,491 feet. Nestled along the Mississippi River with scenic limestone bluffs along one side and downtown St. Paul on the other, the airport offers easy access to many local businesses and amenities. The FAA operates an air traffic control tower on the airfield. The airport ranks third in the MAC reliever system for number of aircraft operations with more than 40,100 takeoffs and landings in 2018.

In January 2018, Holman's Table opened inside the historic administration building, providing a unique and celebrated culinary experience for the Twin Cities. Named after Charles "Speed" Holman, the restaurant pays homage to this local, daredevil pilot and the early days of flight.

Holman's Table Restaurant

3.1 STP LONG-TERM COMPREHENSIVE PLAN STATUS

The last Long-Term Comprehensive Plan for STP was adopted by MAC in June 2010 and covered the 2010-2030 timeframe. No major projects or improvements have been planned for STP aside from pavement reconstruction and upgrades to existing MAC-owned buildings.

The MAC is currently in the process of preparing a visioning study for the three largest Reliever Airports – St. Paul Downtown, Flying Cloud and Anoka County-Blaine Airport. The study is intended to review the airports as a system to define facility needs and gaps. Upon completion of that visioning study, the MAC will proceed with an update to the STP LTCP. It is anticipated the 20-year planning period will extend to 2040.

3.2 STP Environmental Studies

No environmental reviews have been required for projects at the St. Paul Downtown Airport since 2005 when the federal EA was completed for the airfield subdrain project that preceded the construction of the airport floodwall. Prior to that, in 2003, an EAW was completed for the floodwall.

3.3 STP Projects Requiring Preparation of an Environmental Assessment Worksheet

No STP projects in the 2020-2026 Preliminary CIP meet the criteria defined in Minnesota Statutes Section 473.614 for preparation of an EAW.

3.4 STP Cumulative Potential Environmental Effects

Projects identified at STP in the preliminary 2020-2026 CIP include on-going improvements to the MAC-owned terminal building, numerous pavement reconstruction and storm sewer repairs. Also planned is a replacement of the aircraft Engineered Material Arresting System (EMAS) beds located at each end of Runway 14-32.

None of the proposed projects listed in the preliminary 2020-2026 CIP do not meet the threshold in Minnesota Statutes Section 473.614 for an EAW. Although some of the STP projects may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at STP.

St. Paul Downtown Airport

4.0 LAKE ELMO AIRPORT (21D)

Located in the east metro, the Lake Elmo Airport ranks third in MAC airports for based aircraft. The airport is served by a fixed base operator and an aircraft maintenance provider. Lake Elmo Airport has two runways. Runway 14-32 is 2,849 feet long, while Runway 4-22 measures 2,497 feet in length. There is no air traffic control tower but there are two non-precision instrument approaches to the airport. An easy drive to the St. Paul business district or to scenic destinations along the St. Croix River, such as Stillwater, Minnesota and Hudson, Wisconsin, Lake Elmo Airport is conveniently located for both business and leisure travelers.

4.1 21D Long-Term Comprehensive Plan Status

In September 2016, the MAC adopted the 2035 LTCP. Like previous plans, the LTCP objectives include improving runway safety in compliance with FAA guidelines, providing appropriate facilities for the aircraft types currently utilizing the airport, and delineating the future footprint of the airfield pavements.

Lake Elmo Airport

The proposed project components include construction of a new 3,500-foot primary runway that will be parallel to the existing Runway 14-32. The existing runway will then be decommissioned and become a parallel taxiway. Other airfield modifications will be made for connection to the new runway, along with an extension of crosswind Runway 4-22 to 2,750 feet. Realignment of 30th Street North, while keeping it on MAC property, is also a part of the proposed project.

4.2 21D Environmental Studies

The federal Environmental Assessment (EA)/state Environmental Assessment Worksheet (EAW) document was prepared in accordance with the Federal Aviation Administration (FAA) policies and procedures detailed in FAA Order 1050.1F under the National Environmental Policy Act (NEPA). In addition to addressing federal environmental review requirements, the document addresses state requirements under the Minnesota Environmental Policy Act (MEPA). The FAA issued a Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for the project on August 31, 2018, finding the federal EA satisfies NEPA. As the Responsible Government Unit (RGU) for the project under MEPA, the MAC accepted the EAW and adopted the Findings of Fact and Hearing Officers Report at its full Commission meeting on October 22, 2018.

4.3 21D Projects Requiring Preparation of an Environmental Assessment Worksheet

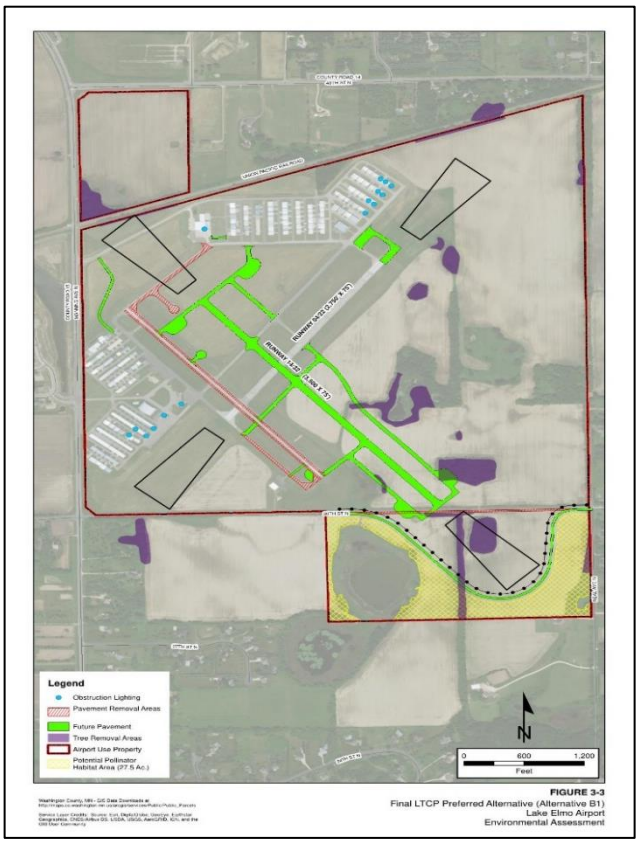
The MAC is already moving forward with construction of the Runway 14-32 Relocation/Extension and Associated Improvements project. The first phase of the program, which involves the realignment of 30th Street North to accommodate the soon to be relocated runway end, is currently underway. The overall project is planned to be phased over three years. These remaining components of the proposed project are outlined in Table 4-1 on Page 12.

Table 4-1
Lake Elmo (21D) Projects in the CIP that Require a Mandatory EAW

Project	CIP Year Proposed	EAW Status
Runway 14-32 Replacement	2020	Included in the Lake Elmo Runway 14-32 Relocation/Extension and Associated Projects EA/EAW Completed in 2018
Airfield Modifications	2020	Included in the Lake Elmo Runway 14-32 Relocation/Extension and Associated Projects EA/EAW Completed in 2018
Runway 14-32 Replacement	2021	Included in the Lake Elmo Runway 14-32 Relocation/Extension and Associated Projects EA/EAW Completed in 2018

4.4 21D Cumulative Potential Environmental Effects

Under Minnesota Statutes Section 473.614, the MAC must examine the cumulative environmental effects of projects at each airport in the proposed CIP, considered collectively. Aside from those project components listed in Table 4-1, for which an EA/EAW has been completed, all other Lake Elmo projects listed in the CIP involve end-of-life replacement and maintenance/upgrades of existing MAC facilities and assets which do not meet all three criteria for preparation of a mandatory EAW under Minnesota Statutes Section 473.614.



Runway 14-32 Relocation/Extension and Associated Improvements

Although some of the Lake Elmo projects may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at Lake Elmo. The minimal impacts identified in the EA/EAW for the road and runway projects will be defined in detail in the permitting process and mitigated as part of the construction projects.

5.0 AIRLAKE AIRPORT (LVN)

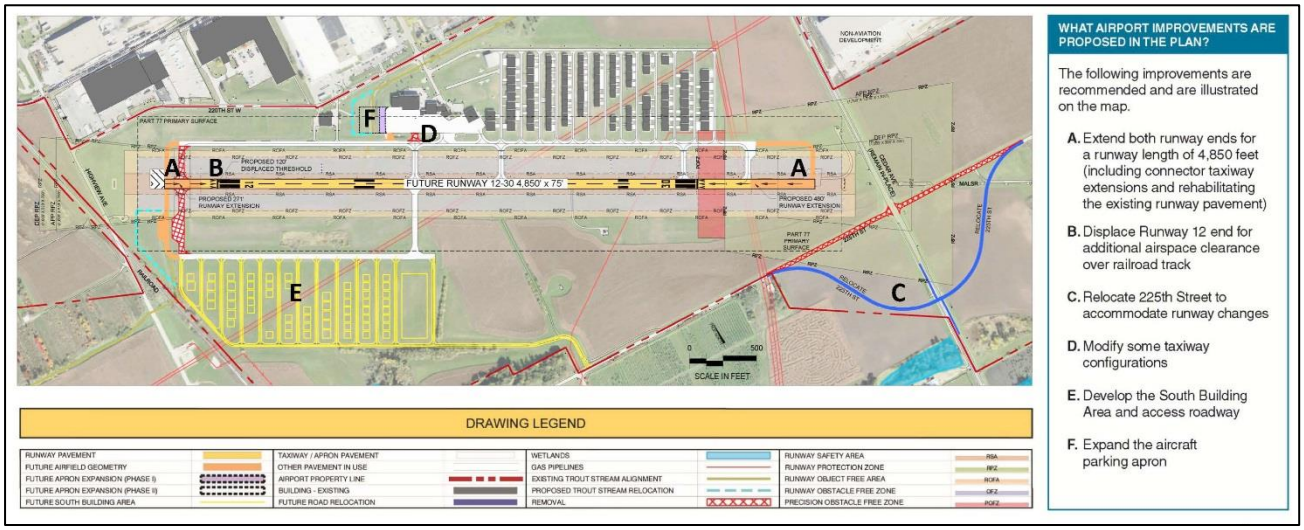
Located south of the Twin Cities near Lakeville and Farmington, Minnesota, Airlake Airport has a single 4,098-foot long Runway 12-30 and full-length parallel taxiway. The airport offers a precision instrument approach to Runway 30 and a non-precision approach to Runway 12. The airport has no air traffic control tower.

Airlake Airport is located near one of Minnesota's largest industrial parks, making it ideally suited for business-related aviation needs as well as recreational use.

Images from Airlake Airport

5.1 LVN LONG-TERM COMPREHENSIVE PLAN STATUS

In April 2018, the MAC adopted the Airlake Airport 2035 Long-Term Comprehensive Plan (LTCP). The goals of the plan include better accommodating business aircraft need by maximizing the airfield's operational capabilities and existing property footprint; maintaining or improving the Runway Protection Zone (RPZ) land use compatibility; mitigating existing issues with airspace penetrations to the extent practical; and updating the taxiway layout to reflect current industry best practices and enhance safety.



Airlake Airport LTCP Preferred Alternative

5.2 LVN Environmental Studies

The Airlake 2035 LTCP proposes completion of the final phase of the south building area alleyways, access road and associated utilities (in 2019), as well as an extension to Runway 12-30 (currently envisioned in 2022). The construction of the hangar area is already underway and includes construction of sanitary sewer and water mains, utility services to the south building area, paving of associated taxilanes and paving the south airport entrance road.

The proposed extension of Runway 12-30 and any rehabilitation needed for the existing portion of the runway pavement is currently programmed for 2022. The MAC will have to identify funding sources for implementation of these proposed improvements and will not proceed with work until the necessary environmental review is completed. The MAC and the FAA will jointly determine the scope of environmental review necessary before moving forward the project.

Airlake Airport

5.3 LVN Projects Requiring Preparation of an Environmental Assessment Worksheet

There are currently no 2020 projects at Airlake shown in the MAC 2020-2026 Preliminary CIP that meet the criteria defined in Minnesota Statutes Section 473.614. There is one project currently shown in 2022 that may meet the criteria. See Table 5-1. The MAC and the FAA will jointly determine the scope of environmental review necessary before approving the project. If environmental review is required, it will be completed prior to project construction.

Table 5-1
Airlake Projects in the CIP that Require a Mandatory EAW

Project	CIP Year Proposed	EAW Status
Runway 12-30 Improvements	2022	Necessity and Timing to be determined

5.4 LVN Cumulative Potential Environmental Effects

Only one project is listed in the CIP for 2020. That project involves the installation of LED airfield lighting fixtures. Projects in other years include primarily pavement reconstruction and continuation of the on-going joint and crack repair program.

The proposed projects mentioned in this section do not meet the threshold in Minnesota Statutes Section 473.614 for an EAW. Although some of the projects may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at Airlake Airport.

Airlake Airport

6.0 FLYING CLOUD AIRPORT (FCM)

The Flying Cloud Airport is situated in the southwestern corner of the Twin Cities metropolitan area, in the community of Eden Prairie. Popular as a home base for corporate business jets and turboprops, Flying Cloud has a strong reputation for serving the needs of busy corporate executives and their flight crews.

Recent airport improvements include the 2008 extension of Runway 10L-28R to 3,900 feet and the 2009 extension of Runway 10R-28L to 5,000 feet. Other improvements include lengthening the taxiway system and developing a new hangar area on the south side of the facility. The north-south runway, 18-36, is 2,691 feet long.

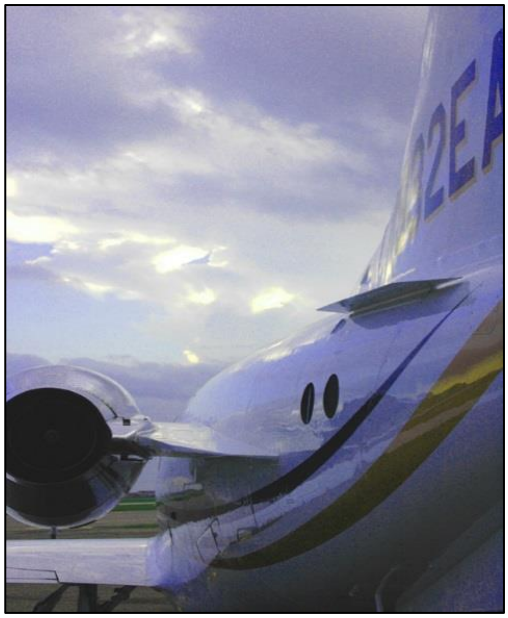
Flying Cloud is the busiest general aviation airport in the MAC reliever system and with just under 90,000 annual operations, it has the second highest number of takeoffs and landings at any Minnesota towered airport.

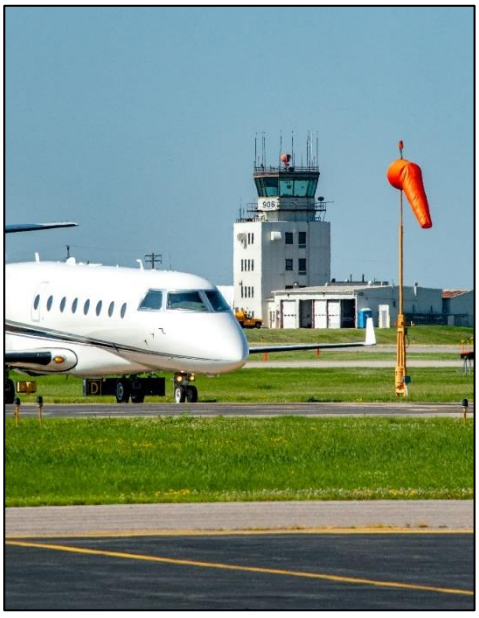
6.1 FCM LONG-TERM COMPREHENSIVE PLAN STATUS

In October 2010, the MAC adopted the Flying Cloud Airport Long-Term Comprehensive Plan Update. Based on the forecasts and existing airfield configuration, no airside or landside expansions were proposed in the LTCP Update.

No major projects or improvements are currently planned in future years for FCM aside from pavement reconstruction and upgrades to existing MAC-owned buildings or assets.

The MAC is currently in the early stages of preparing a visioning study for the three largest Reliever Airports – St. Paul Downtown, Flying Cloud and Anoka County-Blaine Airport. The study is intended to review the airports as a system to define facility needs and gaps. Upon completion of that visioning study, the MAC will proceed with an update to the FCM LTCP. It is anticipated the 20-year planning period will extend to 2040.





Flying Cloud Airport

6.2 FCM Environmental Studies

The most recent environmental review for FCM was completed for the extension to the south parallel runway from 3,900 feet to 5,000, extension of the north parallel runway from 3,600 feet to 3,900 feet, and construction of a new south building area. No projects since that time have met the criteria for environmental review.

6.3 FCM Projects Requiring Preparation of an Environmental Assessment Worksheet

No projects in the 2020-2026 Preliminary CIP at FCM meet the criteria defined in Minnesota Statutes Section 473.614.

6.4 FCM Cumulative Potential Environmental Effects

Projects proposed at Flying Cloud do not include any major improvements. In 2020, taxiway pavement reconstruction is planned along with replacement of MAC-owned underground fuel tanks. Future projects include more pavement reconstruction, access road improvements and electrical vault modifications. Although some of the projects at FCM may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at FCM.

Flying Cloud Airport

7.0 CRYSTAL AIRPORT (MIC)

Named after one of the cities in which it is located, Crystal Airport also overlaps boundaries with Brooklyn Park and Brooklyn Center. The airport currently has three paved and one turf runway and two non-precision instrument approaches. Runway 14L-32R is 3,267 feet long; Runway 14R-32L is 3,266 feet long; and Runway 6L-24R is 2,500 feet long. Closed during the winter months, the turf Runway 6R-24L is 2,123 feet long. The airport also has a FAA-operated air traffic control tower.

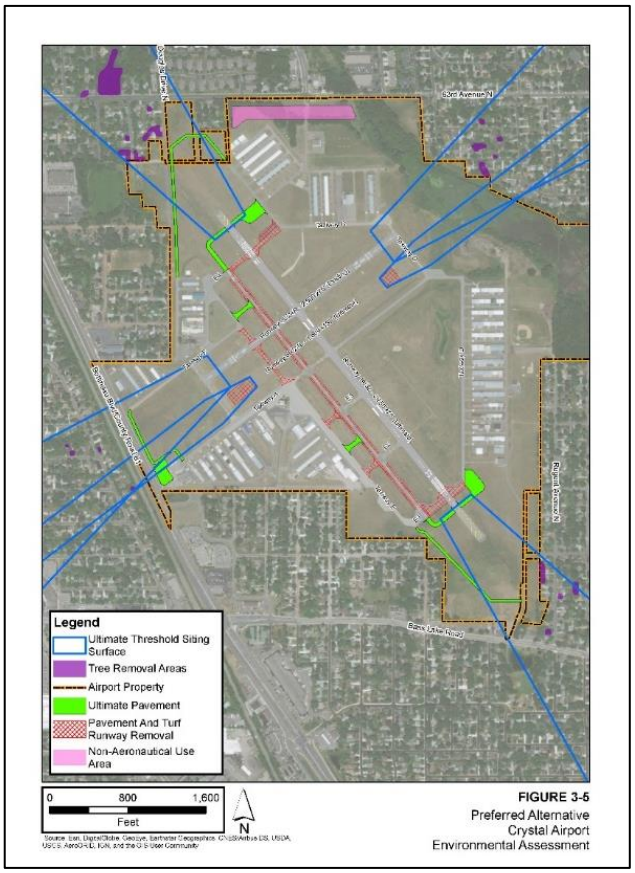
7.1 MIC LONG-TERM COMPREHENSIVE PLAN STATUS

In October 2017, the MAC adopted the 2035 Crystal Airport Long-Term Comprehensive Plan (LTCP). The proposed project includes converting a portion of existing blast pad pavement on each end of Runway 14L-32R to usable runway length, bringing the total length from 3,267 feet to 3,750 feet. The parallel Runway 14R-32L will be decommissioned and reconstructed as a taxiway. All associated electrical runway and taxiway lighting work will be included along with taxiway reconfiguration to simplify airfield geometry. Also proposed is shortening of the existing turf runway to reduce the number of runway crossings.

7.2 MIC ENVIRONMENTAL STUDIES

Based on the recommendations in the 2035 LTCP, the MAC completed a federal Environmental Assessment (EA)/ state Environmental Assessment Worksheet (EAW) for the proposed improvements. The EA/EAW is a joint document prepared in accordance with the FAA policies and procedures detailed in FAA Order 1050.1F for compliance with NEPA. In addition to addressing federal environmental review requirements, the document addresses state review requirements in compliance with MEPA.

On July 31, 2019, the FAA issued a Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for the proposed Runway 14-32 Modifications project, finding the federal EA satisfies NEPA. As the Responsible Government Unit (RGU) for the project under MEPA, the MAC accepted the EAW and adopted the Findings of Fact and Hearing Officers Report at its full Commission meeting on August 19, 2019.



Crystal Airport Runway 14R-32L and Taxiway E Modifications

7.3 MIC Projects Requiring Preparation of an Environmental Assessment Worksheet

The Runway 14-32 Modifications project is the only 2020 project in the preliminary 2020-2026 CIP that meets the criteria for environmental review as defined in Minnesota Statutes Section 473.614. Therefore, Table 7-1 lists only this single MIC project.

Table 7-1
Crystal Projects in the CIP that Require a Mandatory EAW

Project	CIP Year Proposed	EAW Status
Runway 14R-32L and Taxiway E Modifications	2020	EAW Completed in 2019

7.4 MIC Cumulative Potential for Environmental Effects

Projects at the Crystal Airport do not include any major improvements aside from the one listed in Table 7-1 above. Taxilane pavement reconstruction and replacement of MAC-owned underground fuel tanks is planned for 2020. Future projects include more pavement reconstruction. Although some of the projects at MIC may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at MIC.

Images from Crystal Airport

8.0 ANOKA COUNTY–BLAINE AIRPORT (ANE)

Situated in the north metro near the National Sports Center, Anoka County-Blaine Airport (ANE) is an 1,800-acre airport that serves the most diverse aircraft mix in the MAC reliever system. Runway 9-27 is 5,000 feet long, and Runway 18-36 is 4,855 feet long. It has an instrument landing system (ILS), and multiple hangar areas. The airport has a MAC-owned, non-federal air traffic control tower.

8.1 ANE Long-Term Comprehensive Plan Status

In June 2010, the Commission adopted the Anoka County-Blaine Airport Long-Term Comprehensive Plan Update. Based on the forecasts and existing airfield configuration, the MAC did not propose any airside or landside expansions in the LTCP Update.

The MAC is currently in the early stages of preparing a visioning study for the three largest Reliever Airports – St. Paul Downtown, Flying Cloud and Anoka County-Blaine Airport. The study is intended to review the airports as a system to define facility needs and gaps. Upon completion of that visioning study, the MAC will proceed with an update to the ANE LTCP. It is anticipated the 20-year planning period will extend to 2040.

Anoka County-Blaine Airport

8.2 ANE Environmental Studies

Prior to the 2006 extension of Runway 9-27 to 5,000 feet, MAC and the FAA completed a joint environmental review document combining a federal environmental assessment (EA) and a state environmental impact statement (EIS). The EA/EIS included review for the extension of Runway 9-27 and its corresponding taxiway from 4,000 to 5,000 feet, installation of an instrument approach system, construction of two building areas (northwest and east expansion), relocation of Xylite Street, and construction of the National Youth Golf Center. All of these improvements are complete except for the Xylite Street relocation and the east building area expansion, which is currently listed in the preliminary 2020-2026 CIP.

8.3 ANE Projects Requiring Preparation of an Environmental Assessment Worksheet

No projects in the 2020-2026 Preliminary CIP at ANE do not meet the criteria defined in Minnesota Statutes Section 473.614. One project of note, however, is the Xylite Street Relocation project, for which the environmental review has already been completed. While this project does not meet the criteria for a mandatory EAW as defined, it was included in the EA/EIS environmental review document as a component of the larger runway and hangar area program for which a Finding of No Significant Impact (FONSI) was issued in 2003.

Table 8-1
Anoka County-Blaine Projects in the CIP that Require a Mandatory EAW

Project	CIP Year Proposed	EAW
Xylite Street Relocation	2024	Included in the Federal EA/State EIS for Proposed Improvements at ANE Completed in 2003

8.4 ANE Cumulative Potential Environmental Effects

Projects included for 2020 include reconstruction of taxilanes, replacement of existing underground fuel tanks, and airfield lighting improvements. One 2020 project will focus on equipment upgrades for the air traffic control tower, and another will fund improvements that the City of Blaine is making to the sanitary sewer lift stations at the airport. Other future projects in the 2020-2026 CIP include additional pavement rehabilitation and additional lighting upgrades. Although some of the projects at ANE may have temporary impacts during construction, the MAC will use mitigation measures during construction to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using typical mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at ANE.

Images from Anoka County-Blaine Airport

9.0 NEXT STEPS

This report is being made available to the public for a 30-day review and comment period. The comment period will run from October 14, 2019 through November 12, 2019. Comments may be submitted in writing addressed to:

Ms. Jenn Felger
Planning and Environment Coordinator
Metropolitan Airports Commission
6040 28th Avenue South
Minneapolis, MN 55450
Jenn.felger@mspmac.org

Please include "MAC 2020-2026 AOEE" in the email or letter header.

A public hearing is scheduled as part of the regular meeting on the MAC Planning Development and Environment (PD&E) Committee on November 4, 2019 at 10:30 a.m. This committee meeting will be held on the secure side of Minneapolis-St. Paul International Airport's Terminal 1. Be sure to give yourself time to park and enter through security screening prior to the meeting.

Follow these instructions to attend the MAC Public Hearing:

- Park in Daily Parking at Terminal 1. Please pull a ticket and bring it with you to have it validated at the meeting to avoid parking fees.
- Present a government-issued photo ID (driver's license) to the personnel at the Information Booth on Level T. They will prepare a security pass for you and direct you to the Ticketing Level and Security Checkpoint.
- At the security checkpoint, you will be asked to show your ID and security pass at that time.
- Once through security, proceed into the airport mall area. Once inside the airport mall, look for the staircase/elevator to the left of the entrance to Concourse F near the Stone Arch restaurant.

The board meetings take place at the MSP Airport Conference Center on the Mezzanine Level above the Delta Air Lines Sky Club. Use the stairs or elevator to go up one level. For more information, call 612-726-5555.

Upon completion of the AOEE process, MAC staff will finalize the 2020-2026 Capital Improvement Program (CIP) and present it to the full Commission for adoption during the month of December, 2019. The December PD&E Committee meeting, scheduled for December 2, 2019, 10:30 a.m., will include a hearing officer's report and responses to any comments received during the AOEE public comment period.

10.0 APPENDICES

10.1 APPENDIX A – MAC PRELIMINARY 2020-2026 CIP LISTING

10.2 APPENDIX B – DESCRIPTIONS FOR 2020 PROPOSED PROJECTS

10.3 APPENDIX C – DRAFT DESCRIPTIONS FOR 2021-2026 PROJECTS THAT MEET CRITERIA DEFINED IN MINNESOTA STATUTE SECTION 473.614

10.1 APPENDIX A – MAC Preliminary 2020-2026 Capital Improvement Program (CIP) Listing

NOTES	MSP End of Life/Replacement Projects	2020	2021	2022	2023	2024	2025	2026
	10 - Terminal 1							
2	Concourse and Hub Tram Replacement			$500,000			$300,000,000	$300,000,000
4	Passenger Boarding Bridge Replacements	$4,000,000	$8,000,000	$4,000,000	$4,000,000	$4,000,000	$4,000,000	$4,000,000
5	Recarpeting Program				$7,000,000	$7,000,000	$7,000,000	
2	Tram Systems Retrofit and Equipment	$1,750,000						
5	TSA Recapitalization	$12,000,000						
	13 - Energy Management Center							
3	GTC Dual-temperature Pump Improvements			$1,800,000				
3	Heating Pump Upgrades		$900,000					
3	Variable Air Volume (VAV) Box Replacement		$750,000	$750,000	$750,000	$750,000		
	21 - Field and Runway							
5	30L EMAS Replacement		$19,000,000					
2	Bituminous Shoulder Reconstruction		$5,000,000	$7,000,000	$7,500,000	$7,000,000	$6,500,000	$7,000,000
2	Runway 12R-30L Tunnel Storm Sewer Reconstruction	$900,000						
2	Sanitary Sewer Replacement Taxiway R	$3,300,000						
2	Service Road M Reconstruction	$700,000						
2	Taxiway A/B Pavement Reconstruction						$6,500,000	$9,500,000
2	Taxiway D Reconstruction	$15,000,000						
2	Taxiway P Reconstruction		$12,000,000					
2	Terminal 1 Apron Pavement Reconstruction			$13,500,000		$11,500,000		$11,000,000
	26 - Terminal Roads/Landside							
2	Lower Level Roadway Rehabilitation		$1,100,000					
2	Upper Level Roadway Electrical System Rehabilitation		$1,000,000					
2	Upper Level Roadway Rehabilitation		$2,000,000					
2	UPS Loop Pavement Reconstruction	$1,600,000						
4	Variable Message Signs Replacement, Phase 3	$1,600,000						
	36 - Terminal 2							
5	Terminal 2 Recarpeting Program		$500,000	$500,000	$500,000	$500,000		
	39 - Public Areas/Roads							
2	28th Avenue South Reconstruction						$2,270,000	
2	East 62nd Street Reconstruction				$2,400,000			
	66 - Fire							
6	MSP Campus Fire Alarm System Transition	$1,000,000						
	MSP End of Life/Replacement Projects Subtotal	**$41,850,000**	**$50,250,000**	**$28,050,000**	**$22,150,000**	**$30,750,000**	**$326,270,000**	**$331,500,000**

NOTES:

1. A project that has the potential for substantial environmental effects.
2. A reconstruction, rehabilitation, repair or replacement that does not physically alter the original size (an EAW or EIS is not required).
3. An electrical or mechanical device that monitors, indicates or controls existing conditions (an EAW or EIS is not required).
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5. A project that consists of safety or security enhancements, facility maintenance, or facility upgrades (an EAW or EIS is not required).
6. A new, replacement or expansion project that does not have substantial effect (an EAW or EIS is not required).
7. Consultant fees only for planning, design, or environmental work.
8. Residential noise mitigation efforts that are designed to alleviate the impact of aircraft noise (an EAW or EIS is not required).
9. Projects associated with the Airport Foundation art program (an EAW or EIS is not required).
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10.1 APPENDIX A – MAC Preliminary 2020-2026 Capital Improvement Program (CIP) Listing

NOTES	MSP IT Projects	2020	2021	2022	2023	2024	2025	2026
	10 - Terminal 1							
4	Concourse C and G Digital Directory Replacement		$200,000					
4	Intelligent Monitoring and Control Systems (IMACS)	$1,500,000	$1,500,000					
4	IT Miscellaneous Modifications	$5,500,000	$9,000,000	$10,500,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000
5	Telecom Room Equipment Continuity (TREC)	$1,500,000	$1,500,000	$1,500,000				
	MSP IT Projects Subtotal	**$8,500,000**	**$12,200,000**	**$12,000,000**	**$10,000,000**	**$10,000,000**	**$10,000,000**	**$10,000,000**
	MSP Long Term Comprehensive Plan Projects							
	10 - Terminal 1							
1	Baggage Claim/Ticket Lobby Operational Improvements	$85,500,000	$26,000,000	$45,800,000	$6,000,000			
1	Baggage Handling System		$39,000,000					
2	Checkpoint Expansion					$11,000,000		
1	D-Pod Outbound Baggage System							$5,000,000
1	FIS Recheck Operational Improvements			$8,400,000				
7	MSP Airport Layout Plan		$800,000					
5	Unstaffed Exit Lanes	$600,000				$2,500,000		
	21 - Field and Runway							
1	Runway 30R Parallel Taxiway			$12,000,000		$10,000,000		$14,000,000
	36 - Terminal 2							
7	Terminal 2 Near-term Expansion Design Fees			$100,000				
7	Terminal 2 North Gate Expansion Design Fees				$5,000,000			
	MSP Long Term Comprehensive Plan Projects Subtotal	**$86,100,000**	**$65,800,000**	**$66,300,000**	**$11,000,000**	**$23,500,000**	**$0**	**$19,000,000**

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10.1 APPENDIX A – MAC Preliminary 2020-2026 Capital Improvement Program (CIP) Listing

NOTES	MSP Maintenance/Facility Upgrade Projects	2020	2021	2022	2023	2024	2025	2026
	10 - Terminal 1							
5	ADO Office Expansion		$500,000					
9	Art Display Areas	$250,000	$250,000	$250,000				
9	Arts Master Plan	$1,560,000	$900,000	$1,100,000	$1,200,000	$500,000	$500,000	$600,000
4	Concourse G Moving Walks			$6,000,000				
5	Delivery Node Redevelopment		$7,800,000	$2,700,000	$2,700,000	$2,250,000	$4,320,000	$5,000,000
2	Folded Plate Repairs			$8,900,000		$8,900,000		$8,900,000
4	Lighting Infrastructure Technology and Equipment (LITE)			$2,250,000		$2,500,000		$2,500,000
5	Restroom Upgrade Program			$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000
6	Terminal 1 Employee Breakroom		$225,000					
5	Terminal 1 Mechanical Room C-1043			$5,500,000				
5	Terminal 1 Public Walk Aisle Terrazzo Floor Installation				$4,400,000	$4,400,000	$4,500,000	$4,500,000
2	Terminal 1 Tug Door Replacement		$540,000					
2	Terminal 1 Tug Drive Heater Replacement			$900,000				
4	Way-Finding Sign Backlighting Replacement	$1,600,000			$1,600,000			
	13 - Energy Management Center							
4	Air Handling Unit Safety Upgrades	$550,000						
4	Concourse B Heating System Upgrades		$925,000	$2,050,000				
4	Concourse G Energy Efficiency Projects	$2,000,000						
6	EMC Roof Replacement and Break Room Remodel	$8,300,000						
4	Energy Savings Program	$2,000,000		$2,000,000		$2,000,000		$2,000,000
4	Indoor Air Quality Monitoring System	$660,000						
4	LED Lighting Conversion in Valet	$500,000						
4	Material Storage Building - Boiler Room Addition			$1,000,000				
4	Victaulic Piping Replacement	$1,000,000	$1,000,000		$2,000,000		$2,000,000	
	21 - Field and Runway							
4	Apron Lighting LED Upgrade				$5,000,000	$1,000,000	$3,000,000	$1,000,000
4	Runway LED Lighting Upgrade	$1,000,000		$1,500,000	$1,700,000	$2,700,000		
4	Taxiway T Centerline Lights		$600,000					
2	Terminal 2 Glycol Lift Station/Forcemain				$1,100,000			
4	Tunnel Lighting LED Upgrade				$1,100,000	$1,000,000	$900,000	$400,000

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10.1 APPENDIX A – MAC Preliminary 2020-2026 Capital Improvement Program (CIP) Listing

NOTES	MSP Maintenance/Facility Upgrade Projects, continued	2020	2021	2022	2023	2024	2025	2026
	31 - Parking							
2	Orange Ramp Metal Panel Replacement		$500,000					
3	Parking Guidance System			$6,500,000				
2	Parking Ramp Railing Refinishing	$1,000,000	$1,000,000					
	36 - Terminal 2							
2	Terminal 2 Landside Waste/Recycle Facility		$200,000					
2	Terminal 2 MUFIDS/EVIDS Millwork Upgrades				$350,000			
2	Terminal 2 Gate Area Passenger Amenities				$1,000,000			
2	Terminal 2 Gate Desk/Podium Replacement							$450,000
4	Terminal 2 Pre-Conditioned Air (PCA) Replacement (H1-H10)	$2,000,000						
6	Terminal 2 Rentable Space Build-out	$700,000						
6	Terminal 2 Employee Breakroom	$200,000						
6	Terminal 2 Shuttle Waiting Area Expansion		$400,000					
5	Terminal 2 Skyway to LRT Flooring Installation			$800,000				
	39 - Public Areas/Roads							
2	Diverging Diamond Intersection Rehabilitation			$340,000				
4	Tunnel Fan Replacement				$5,000,000	$6,800,000		
	46 - Hangars and Other Buildings							
6	MAC Storage Facility			$10,000,000				
6	Safety and Security Center	$77,500,000						
	56 - Trades/Maintenance Buildings							
6	South Field Maintenance Building Wash Bay				$1,300,000			
	63 - Police							
6	Badging Office Relocation	$2,700,000						
5	Card Access Modifications	$3,500,000	$1,000,000	$1,000,000				
5	Perimeter Gate Security Improvements	$3,000,000	$1,000,000	$6,500,000	$6,500,000			
5	Perimeter Fence Intrusion Detection System				$1,000,000			
	66 - Fire							
5	Campus Fire Protection	$2,800,000	$2,400,000	$3,400,000	$1,900,000	$3,500,000	$2,700,000	$2,500,000

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10.1 APPENDIX A – MAC Preliminary 2020-2026 Capital Improvement Program (CIP) Listing

NOTES	MSP Maintenance/Facility Upgrade Projects, continued	2020	2021	2022	2023	2024	2025	2026
	70 - General Office/Administration							
5	GO Building Improvements	$500,000						
	76 - Environment							
4	Glycol Sewer & Storm Sewer Inspection/Rehabilitation					$1,400,000	$500,000	
4	Ground Service Equipment (GSE) Electrical Charging Stations				$3,000,000			
4	Lift Station at Ponds 1 and 2	$850,000						
4	Runway 12R-30L Glycol Forcemain Environmental Improvements	$1,500,000						
2	Terminal 2 Remote Ramp Lot/Drainage Improvements			$2,000,000				
	MSP Maintenance/Facility Upgrade Projects Subtotal	**$115,670,000**	**$19,240,000**	**$66,690,000**	**$42,850,000**	**$38,950,000**	**$20,420,000**	**$29,850,000**
	MSP Noise Mitigation Consent Decree Amendment							
8	MSP Noise Mitigation Consent Decree Amendment	$10,300,000	$1,000,000	$18,100,000	$1,000,000	$1,000,000		

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10.1 APPENDIX A – MAC Preliminary 2020-2026 Capital Improvement Program (CIP) Listing

NOTES	MSP Ongoing Maintenance Programs	2020	2021	2022	2023	2024	2025	2026
	10 - Terminal 1							
4	Air Handling Unit Replacement		$6,500,000	$6,500,000	$6,500,000	$6,500,000	$6,500,000	$3,000,000
4	Baggage System Upgrades	$500,000	$500,000	$500,000	$500,000	$500,000		
4	Concourse G Rehabilitation	$4,000,000	$4,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000
4	Conveyance System Upgrades		$3,000,000			$3,000,000		
4	Electrical Infrastructure Program (EIP)	$2,000,000	$2,000,000	$2,500,000	$2,500,000		$2,500,000	$2,500,000
4	Electrical Substation Replacement		$1,400,000	$1,400,000	$1,400,000	$1,400,000	$1,200,000	$1,200,000
4	Emergency Power Upgrades	$2,000,000	$2,000,000	$2,500,000	$2,500,000		$2,500,000	$2,500,000
4	Plumbing Infrastructure Upgrade Program	$500,000	$600,000	$600,000	$600,000	$700,000		
5	Terminal Building Remediation Program	$2,000,000	$2,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000
4	Terminal Miscellaneous Modifications	$2,400,000	$2,400,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000
	13 - Energy Management Center							
4	EMC Plant Upgrades (T1 & T2)	$1,500,000	$1,500,000	$1,300,000			$1,500,000	
	21 - Field and Runway							
2	Airside Electrical Construction	$1,100,000		$4,000,000	$2,300,000	$2,500,000	$2,500,000	
2	Glycol Tank Repairs	$500,000						
2	Miscellaneous Airfield Construction	$3,000,000	$3,000,000	$3,500,000	$4,000,000			
2	Pavement Joint Sealing/Repair	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000
	26 - Terminal Roads/Landside							
2	Glumack Drive Reconstruction				$9,300,000			
2	Tunnel Approaches Reconstruction			$2,370,000				
2	Tunnel/Bridge Rehabilitation	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$120,000
	31 - Parking							
2	Parking Structure Rehabilitation	$2,500,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000		

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10.1 APPENDIX A – MAC Preliminary 2020-2026 Capital Improvement Program (CIP) Listing

NOTES	MSP Ongoing Maintenance Programs, continued	2020	2021	2022	2023	2024	2025	2026
	39 - Public Areas/Roads							
2	34th Ave Sanitary Sewer Replacement			$2,200,000				
2	34th Avenue Bus Area Reconstruction				$700,000			
2	34th Avenue Reconstruction			$7,000,000	$6,000,000			
2	Concrete Joint Repair		$400,000	$900,000	$2,200,000	$300,000	$400,000	$2,300,000
2	Landside Pavement Rehabilitation	$400,000	$500,000	$500,000	$500,000	$500,000		$500,000
2	Landside Utility Rehabilitation		$750,000	$750,000	$750,000	$750,000	$750,000	
2	Roadway Fixture Refurbishment	$150,000	$150,000	$150,000	$150,000			
	46 - Hangars and Other Buildings							
5	Campus Building Rehab Program		$500,000	$1,500,000	$1,500,000	$1,500,000		$1,500,000
2	Campus Parking Lot Reconstructions			$650,000	$650,000			
10	End of Life Campus Building Demolition			$400,000	$400,000			
2	MSP Campus Building Roof Replacements	$1,000,000	$1,300,000	$2,900,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
	MSP Ongoing Maintenance Programs Subtotal	**$24,450,000**	**$36,400,000**	**$56,520,000**	**$57,850,000**	**$33,050,000**	**$30,250,000**	**$25,920,000**
	MSP Tenant Projects							
	10 - Terminal 1							
2	Concessions Upgrades/Revenue Development	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000
1	Concourse G Infill and Delta Sky Club	$70,500,000						
4	Elevator and concourse improvements related to relocated United Club			$200,000				
2	Terminal 1 FIS Global Entry Kiosk Relocation	$100,000						
	46 - Hangars and Other Buildings							
7	Ground Service Equipment (GSE) Maintenance Facility			$200,000				
	MSP Tenant Projects Subtotal	**$70,800,000**	**$200,000**	**$600,000**	**$200,000**	**$200,000**	**$200,000**	**$200,000**

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10.1 APPENDIX A – MAC Preliminary 2020-2026 Capital Improvement Program (CIP) Listing

NOTES	Reliever Airports Long Term Comprehensive Plan (LTCP) Projects	2020	2021	2022	2023	2024	2025	2026
	81 - St. Paul							
7	STP Airport Layout Plan			$400,000				
	82 - Lake Elmo							
1	21D Airfield Modifications	$3,000,000						
7	21D Long Term Comp Plan					$100,000		
1	21D Runway 14-32 Replacement	$2,000,000	$2,000,000					
	83 - Airlake							
7	LVN Long Term Comp Plan					$100,000		
1	LVN Runway 12-30 Improvements			$3,500,000				
	84 - Flying Cloud							
7	FCM Airport Layout Plan		$300,000					
10	FCM Purchase and Demolition of Hangars			$1,300,000				
6	FCM South Building Area Utilities						$600,000	
	85 - Crystal							
7	MIC Long Term Comp Plan					$100,000		
1	MIC Runway 14R-32L & Taxiway E Modifications	$5,000,000						
	86 - Anoka County - Blaine							
7	ANE Airport Layout Plan		$400,000					
1	ANE Building Area Development - Xylite St. Relocation					$1,000,000		
	Reliever Airports LTCP Projects Subtotal	**$10,000,000**	**$2,700,000**	**$5,200,000**	**$0**	**$1,300,000**	**$600,000**	**$0**

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10.1 APPENDIX A – MAC Preliminary 2020-2026 Capital Improvement Program (CIP) Listing

NOTES	Reliever Airports Maintenance/Facility Upgrade Projects	2020	2021	2022	2023	2024	2025	2026
	80 - Reliever Airports							
4	Reliever Building Misc Mods	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000
2	Reliever Pavement Rehabilitation Misc Mods	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000
	81 - St. Paul							
6	STP Airport Perimeter Roads	$400,000				$500,000		
6	STP Cold Equipment Storage Building				$750,000			
6	STP Customs and Border Protection General Aviation Facility							$2,000,000
4	STP LED Edge Lighting Upgrades			$1,000,000	$1,500,000			
5	STP MAC Building Improvements		$1,000,000	$200,000		$200,000		$200,000
2	STP Pavement Rehabilitation-Taxilanes/Tower Road						$500,000	
2	STP Runway 13-31 Pavement Reconstruction			$5,000,000				
5	STP Runway 14-32 EMAS Replacement							$10,000,000
2	STP Runway 14-32 Reconstruction					$5,000,000	$5,000,000	
2	STP Storm Sewer Improvements				$1,500,000			
2	STP Taxiway B Rehabilitation					$800,000		
2	STP Taxiway Lima Rehabilitation							$200,000
	82 - Lake Elmo							
2	21D North Building Area Pavement Rehabilitation				$900,000			
2	21D North Service Roads Rehabilitation					$500,000		
2	21D Parallel Taxiways Reconstruction			$0		$600,000		
2	21D Runway 04-22 Pavement Rehabilitation				$4,000,000			
	83 - Airlake							
2	LVN Existing Runway 12-30 Reconstruction			$3,500,000				
2	LVN Joint and Crack Repairs		$150,000					
4	LVN LED Edge Lighting	$500,000		$200,000				
2	LVN North Service Road Pavement Rehabilitation							$400,000
2	LVN North Taxilanes Pavement Rehabilitation							$1,000,000

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10.1 APPENDIX A – MAC Preliminary 2020-2026 Capital Improvement Program (CIP) Listing

NOTES	Reliever Airports Maintenance/Facility Upgrade Projects, continued	2020	2021	2022	2023	2024	2025	2026
	84 - Flying Cloud							
4	FCM Airfield Electrical Improvements - Taxiway D & E Lights		$300,000					
2	FCM Airport Access Roads and Tango Lane						$500,000	
6	FCM Electrical Vault Modifications						$500,000	
5	FCM MAC Building Improvements		$520,000				$200,000	
2	FCM Runway 10R-28L Pavement Rehabilitation				$1,500,000			
2	FCM Taxiways A1, A3, F Pavement Rehabilitation	$300,000						
2	FCM Underground Fuel Storage Tank Replacement	$400,000						
	85 - Crystal							
4	MIC LED Edge Lighting Upgrade		$400,000	$400,000				
2	MIC Service Roads			$1,200,000				
2	MIC Taxilanes Pavement Rehabilitation	$550,000		$600,000		$500,000		$500,000
2	MIC Underground Fuel Storage Tank Replacement	$400,000						
	86 - Anoka County - Blaine							
5	ANE Air Traffic Control Tower Equipment Upgrades	$100,000						
4	ANE Electrical Vault Improvements					$750,000		
4	ANE LED Edge Lighting Upgrade	$800,000		$1,700,000				
4	ANE Lift Station Improvements	$410,000						
2	ANE Pavement Rehabilitation - Taxiway A and Edge Lights			$1,800,000				
2	ANE Runway 18-36 Pavement Rehabilitation							$2,500,000
2	ANE Taxilanes Pavement Reconstruction	$750,000	$750,000					
2	ANE Underground Fuel Storage Tank Replacement	$400,000						
6	ANE West Perimeter Road				$700,000			
	Reliever Airports Maintenance/Facility Upgrade Projects Subtotal	**$5,710,000**	**$3,820,000**	**$16,300,000**	**$11,550,000**	**$9,550,000**	**$7,400,000**	**$17,500,000**
	MSP Subtotal	**$357,670,000**	**$185,090,000**	**$248,260,000**	**$145,050,000**	**$137,450,000**	**$387,140,000**	**$416,470,000**
	Reliever Subtotal	**$15,710,000**	**$6,520,000**	**$21,500,000**	**$11,550,000**	**$10,850,000**	**$8,000,000**	**$17,500,000**
	Total	***$373,380,000***	***$191,610,000***	***$269,760,000***	***$156,600,000***	***$148,300,000***	***$395,140,000***	***$433,970,000***

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10.2 APPENDIX B – Descriptions for 2020 Proposed Projects

2020 Capital Improvement Program Narratives

MSP END OF LIFE/REPLACEMENT PROJECTS

10 – Terminal 1

Passenger Boarding Bridge Replacements **$4,000,000**

This project provides for the replacement of jet bridges at Terminal 1. Bridges to be replaced will be determined based on a condition assessment and input from the airlines. Aircraft parking positions will be optimized at the impacted gates and fuel pits adjusted as necessary. Podiums and door openings may also be adjusted to optimize gate hold area. It is assumed fixed walkways may need to be replaced or added to meet ADA slope requirements and all gate hold areas will be upgraded with security doors, card readers, and cameras.

Terminal 1 Tram Systems Retrofit and Equipment **$1,750,000**

This project is the final phase of the multi-year program that extends the life of the C Concourse and Hub Trams by updating all electrical, mechanical, and structural components. This phase also replaces the guideway lighting for both trams.

TSA Recapitalization **$12,000,000**

In 2005 the Commission approved construction of the West Checked Baggage Inspection System (CBIS), which included a TSA contribution of seven CTX devices, supporting technologies and equipment, and staff. Subsequently, the CTX devices have begun to approach end-of-life status based on current required maintenance cost, as determined by the TSA. The TSA has offered for negotiation a 100% funded (no MAC cost) "Other Transaction Agreement" (OTA) for design and construction services for device replacement and other required upgrades to accommodate the new technology. There will be two OTAs, one for the design phase and a second OTA for the construction phase will be negotiated in 2019. This project will provide for the design and installation of TSA furnished devices and other required equipment at no cost to the MAC.

21 – Field and Runway

Runway 12R-30L Tunnel Storm Sewer **$900,000**

This project provides for construction of a new storm sewer main inside the existing Runway 12R-30L vehicular tunnel to replace the existing storm sewer which is not functional due to deterioration and accumulated sediment.

Sanitary Sewer Replacement – Taxiway R **$3,300,000**

This project provides for reconstruction of the sanitary sewer currently located beneath the U.S. Air Force Apron. The sewer will be relocated between Taxiway R and the apron. New lateral sewers will be constructed to connect Air Force sewers to the new sewer main, and abandoned sewers will be filled with sand. The project will require replacement of portions of the apron pavement and connecting taxiways.

Service Road M Reconstruction **$700,000**

Due to deteriorating conditions and increased traffic from the new Receiving and Distribution Center, Service Road M from Taxiway T to Service Road W needs to be reconstructed. A new alignment near Service Road W will allow for future building construction.

10.2 APPENDIX B – Descriptions for 2020 Proposed Projects

Taxiway D Reconstruction **$12,000,000**

This project provides for reconstruction of a portion of Taxiway D between Taxiway W and Taxiway C1. Existing concrete pavement was constructed in 1972. Major items of work include pavement removals, excavation and backfill, concrete taxiway pavement, bituminous shoulder pavement, and airfield lighting and signing.

26 – Terminal Roads/Landside

UPS Loop Pavement Reconstruction **$1,600,000**

This project reconstructs the existing UPS Loop. The existing concrete pavement has had periodic maintenance including repairs to the existing joints near the UPS gate entrance. The reconstruction work will include concrete pavement, lighting, electrical infrastructure, concrete walk, landscape and other improvements.

Variable Message Signs Replacement, Phase 3 **$1,600,000**

This project replaces approximately 26 variable message signs across the MSP campus and installs five new signs to assist with parking diversions.

66 – Fire

MSP Campus Fire Alarm System Transition **$1,000,000**

To improve monitoring reliability and eliminate the existing single point of failure configuration, this multi-year project will include database redundant systems, device controller upgrades and the decentralization of the fire alarm master control equipment.

MSP IT PROJECTS

10 – Terminal 1

Intelligent Monitoring and Control Systems (IMACS) **$1,500,000**

This is a continuation of a multi-year program to upgrade all MAC building automation systems to an open architecture protocol so that MAC can bid maintenance and construction contracts more competitively. This project will replace sole-source controllers such as Siemens and Legacy Honeywell with controllers from Honeywell, Circon, Distech, and TAC systems that are LonMark certified products.

IT Miscellaneous Modifications **$5,500,000**

Each year, there are several IT projects that are beyond the resources of MAC's staff and operating budget to accomplish. These projects are prioritized and completed either as a series of contracts or as purchase orders. Work may include Fiber Optic Cable Upgrades, MACNet maintenance and upgrades, EVIDs/MUFIDs digital signs, Wireless System enhancements, and MAC Public Address System maintenance and upgrades. The list of potential projects will be compiled and prioritized in early 2020.

Telecommunications Room Equipment Continuity (TREC) **$1,500,000**

The MAC network (MACNet) carries, along with other information, credit card data collected from the landside parking revenue control system. Merchants like the MAC are required to meet credit card security standards created to protect card holder data. Among these requirements are security standards for the physical locations where MACNet equipment is located. Additionally, the network equipment itself must have added security features to prevent unauthorized network access. This multi-year program addresses these standards by providing security equipment and relevant network hardware for the 150 telecommunications rooms on the MAC campus.

10.2 APPENDIX B – Descriptions for 2020 Proposed Projects

MSP LONG TERM COMPREHENSIVE PLAN PROJECTS

10 – Terminal 1

Baggage Claim/Ticket Lobby Operational Improvements **$85,500,000**

This is continuation of a program that will provide the level of service requirements for short- and medium-term growth of the Origin & Destination (O&D) passengers, addressing issues of congestion and functionality in the Terminal 1 Arrivals and Departures areas. This program will complete the expansion of the east terminal façade, including walkways that meet required codes, public seating areas, curtain wall replacement, improved lighting and sight lines, east mezzanine removal/reduction, structural enhancements, improved vestibules and curbside. In the Departures Hall this program will increase the depth of the check-in area and include airline check-in facilities, ticket offices, and TSA space. The South Security Checkpoint will be expanded to eight lanes and add an employee screening portal. The Center Mezzanine will be expanded with a cantilevered corridor, allowing security observation and facilitating future remodeling. On the Arrivals Level, baggage claim device capacity will be increased.

Unstaffed Exit Lanes **$600,000**

This project will add a pair of three-door unstaffed exit lane technology at the Skyway Security Checkpoint (Checkpoint 10), allowing the C-G Connector to remain open 24-hours and freeing security personnel from monitoring the exit.

MSP MAINTENANCE/FACILITY UPGRADE PROJECTS

10 – Terminal 1

Art Display Areas **$250,000**

This program is a continuation of the existing program, in partnership with the MSP Foundation, to provide opportunities and space build out for the display of permanent and temporary/rotating art exhibits.

Arts Master Plan **$1,560,000**

This program supports procurement of commissioned art and rotating exhibits as part of the Percent for Arts program.

Way-Finding Sign Backlighting Replacement **$1,600,000**

The third phase of the multi-year program to replace failing cold-cathode lighting with LED lighting and update signage, remove signs, relocate and combine signs, and modify verbiage and symbols on signs to be more consistent with international signage norms. Since 2008 the cold-cathode lighting has been maintained and requires staff and material costs; newer signage standards update the lighting and allow for easier/less-costly signage face changes, and has been implemented within the Operational Improvements program, Silver Ramp, and other projects.

13 – Energy Management Center (EMC)

Air Handling Unit Safety Upgrades **$550,000**

This project will verify the wiring of safety sensors on the air handling units (AHUs) at MSP and correct those that are wired incorrectly.

Concourse G Energy Efficiency Projects **$2,000,000**

This project will focus on improving the energy efficiency of mechanical and electrical systems in the G Concourse.

10.2 APPENDIX B – Descriptions for 2020 Proposed Projects

EMC Roof Replacement and Break Room Remodel **$8,300,000**

This project will upgrade and rebuild portions of the Energy Management Center (EMC), including replacing the roof and curtain wall system at the North exit, both of which are at end of their useful life. In addition, the project will expand the structure to accommodate adequate locker rooms and a workshop facility to meet the needs of the EMC staff.

Energy Savings Program **$2,000,000**

The scope of this year's project involves work at both Terminal 1 and Terminal 2 and in general includes the replacement of valves, boilers, lighting controls, and motors with high efficiency models.

Indoor Air Quality Monitoring **$660,000**

This project will install needed CO_2 sensors in common return air ducts and tie all new and existing sensors into the IMACS for remote monitoring and for automatic safety ventilation. I will also provide the EMC with advanced modular indoor air quality (IAQ) sensors to install temporarily at any location that has IMACS to detect ultra-fine particles, volatile organic compounds, CO_2, CO, NO_2 and other gasses in the area of an IAQ complaint, enabling the EMC to accurately assess the problem and solution.

LED Lighting Conversion in Valet **$500,000**

This project replaces light fixtures in the valet parking area with LED fixtures for improved energy efficiency in support of the MAC's Carbon Management Plan.

Victaulic Piping Replacement **$1,000,000**

This 5-year program will replace the Victaulic piping and valves in Terminal 2, Concourse E, Concourse F, Concourse C at Terminal 1, and the Concourse C utility tunnel. While Victaulic pipe fittings allow for the pipe to be quickly and easily disassembled when needed, it has been discovered that the joints cause leaking because the seals shrink when they cool due to shut downs and service disruptions which occur frequently at MSP and then don't hold tight when the system is restored to normal operation. 2020 is the first year of work under this program.

21 – Field and Runway

Runway LED Lighting Upgrade **$1,000,000**

Project provides for all runway edge lights, centerline lights, and touchdown zone lights on Runway 12L-30R to be replaced with LED lights.

31 – Parking

Parking Ramp Railing Refinishing Project **$1,000,000**

This multi-year project will address the parking ramp metal railings that have weathered and degraded over time. The paint has chipped and peeled away, which caused the exposed metal rail to rust and corrode. If not repaired, the degraded metal railings could become at risk for detachment. The rust has stained the concrete walls and concrete slabs creating an unsightly appearance for airport customers and resulting in concrete repair work in the surrounding areas.

36 – Terminal 2

Terminal 2 Preconditioned Air (PCA) Replacement (H1-H10) **$2,000,000**

This project will replace the existing R22 refrigerant PC-Air units at Terminal 2 with units that meet the MAC's updated standards and are sized to meet the needs of B737 and larger aircraft.

10.2 APPENDIX B – Descriptions for 2020 Proposed Projects

Terminal 2 Rentable Space Build-out **$700,000**

This project will build out previously vacant and unfinished rentable spaces in the terminal to support additional airline accommodations as well as existing tenant growth.

Terminal 2 Employee Breakroom **$200,000**

This project will provide an employee break room that will have a quiet area for employees who work multiple shifts on the campus to eat, read, etc. By providing this quality work support area, front line and other employees will be able to rest and eat out of view of the public.

46 – Hangars and Other Buildings

Safety and Security Center **$77,500,000**

The project will construct a building to house a new Airport Operations Center which includes Airside Operations and the Emergency Communications Center, a dedicated primary Emergency Operations Center, consolidated Airport Police Department facilities, and a replacement fire station (ARFF #2). This combined facility is intended to bring together the airport entities that are stakeholders in the daily operations to improve collaboration and coordination.

63 – Police

Badging Office Relocation **$2,700,000**

This project will co-locate all Badging Office functions to the spaces occupied by the Rental Car Agencies in the Red/Blue parking ramp core following RAC relocation to the Customer Service Building in the Silver Ramp.

Card Access Modifications **$3,500,000**

This program will add card access controls at passenger boarding bridge doors for improved security at a pace faster than only adding the controls as bridges are replaced.

Perimeter Gate Security Improvements **$3,000,000**

This project provides for the reconstruction of Gate 269 with a full crash beam gate, updated electrical controls, and a new full prefabricated guard booth.

66 – Fire

Campus Fire Protection **$2,750,000**

This program addresses deficiencies in water-based fire protection systems and firefighting water supplies. It will provide for needed compliance with the MN State Fire and Building Codes, the MAC Design and Construction Standards. It will ensure continued capability for the Airport Fire Department to respond to fire emergencies, and to effectively and efficiently fight fires and mitigate hazards. In 2020, the project scope will address issues both in the terminals and throughout the MSP campus.

70 – General Office/Administration

GO Building Improvements **$500,000**

Continual maintenance of MAC buildings is necessary for comfort and safety as well as sustainability of the MAC asset. Age and weather contribute to building deterioration, mold and other health issues. The General Office Building, built in the 1960's, has experienced a number of window and building issues that need to be corrected including: window sealing and replacements, curtain wall sealing, roof repairs, and valve replacements. This program will also address replacement of end-of-life finishes as required.

10.2 APPENDIX B – Descriptions for 2020 Proposed Projects

76 – Environment

Lift Stations at Ponds 1 and 2 **$850,000**

Project provides for construction of two stormwater lift stations adjacent to MSP Ponds 1 and 2. The lift stations will utilize the existing 8-inch forcemain to divert water from one pond to the other to facilitate pond cleaning and maintenance.

Runway 12R-30L Glycol Forcemain Environmental Improvements **$1,500,000**

Project provides for construction of glycol pumping stations and forcemains to convey glycol-impacted stormwater from the Runway 30R and 30L deicing pads to the existing glycol sewers west of Runway 4-22 and the glycol management facility. Completion of this project will eliminate the current trucking operation.

MSP NOISE MITIGATION PROJECTS

Noise Mitigation Consent Decree Amendment **$10,300,000**

The Consent Decree First Amendment Program is a residential noise mitigation program that began in March 2014 under the terms of an amended legal agreement (Consent Decree) between the Metropolitan Airports Commission (MAC) and the cities of Richfield, Minneapolis, and Eagan, and approved by the Hennepin County District Court (effective until December 31, 2024). Under this program, eligibility of single-family and multi-family homes will be determined annually, based upon actual noise contours that are developed for the preceding calendar year, beginning in March 2014. This project will provide noise mitigation for those single family and multifamily homes meeting the eligibility requirements of the program.

MSP ONGOING MAINTENANCE PROJECTS

10 – Terminal 1

Baggage System Upgrades **$500,000**

This multi-year program will provide necessary upgrades to the inbound and outbound baggage system not covered by general system maintenance.

Concourse G Rehabilitation **$4,000,000**

This multi-year program will provide operational improvements to the existing concourse over time, including replacing elevators, modifying and replacing structural, electrical and mechanical systems.

Electrical Infrastructure Program **$2,000,000**

There are 53 electrical substations that serve the Terminal 1 complex. It is imperative that these substations be inspected, cleaned, and upgraded in order to ensure their continued performance.

Emergency Power Upgrades **$2,000,000**

A study and survey of Terminal 1 transfer switches and emergency lighting was completed in 2008. This year's project is part of a multi-year program that will continue the design and implementation of emergency power and lighting corrective work identified in this study.

Plumbing Infrastructure Upgrades **$500,000**

In 2010, MAC staff prepared a preliminary study of the reliability and maintainability of the existing plumbing infrastructure. Portions of the existing plumbing infrastructure serving Terminal 1 are over 40 years old, have systems that are undersized for today's demands, contain isolation valves that are either inaccessible or no longer functional, and utilize aging water meter systems. There are also deteriorated sections of the existing sanitary and storm water systems. This ongoing program was implemented in 2012 to upgrade the plumbing infrastructure system to meet current code requirements and MAC standards. The focus of the 2019 project is to continue the replacement of aging plumbing systems.

10.2 APPENDIX B – Descriptions for 2020 Proposed Projects

Terminal Building Remediation **$2,000,000**

Continual maintenance of the terminal buildings is imperative to passenger comfort and safety as well as sustainability of the MAC asset. Age and weather contribute to building deterioration, mold and other health issues. Building and concourse envelope issues include curtain wall systems, glazing, sealant repair/replacement, louver repair/replacement, metal panel repair/replacement, and soffit repair/replacement and insulation systems.

Terminal Miscellaneous Modifications **$2,400,000**

Each year, there is a list of maintenance projects that are beyond the resources of MAC's maintenance and trades staff to accomplish. These projects are prioritized and completed either as a series of contracts or as purchase orders. Typical work includes door replacements, emergency upgrades to mechanical, electrical, plumbing or HVAC systems, loading dock work, etc. The list of potential projects will be compiled and prioritized in early 2020.

13 – Energy Management Center

EMC Plant Upgrades (T1 & T2) **$1,500,000**

This multi-year program provides upgrades to the MAC's Energy Management Center (EMC) Boiler and Chiller Plants at both Terminal 1 and Terminal 2. The work includes upgrades to the aging Chilled Water and Heating Water systems throughout both terminals. The pumping and piping systems on both the heating and cooling systems are aging and in need of repair work beyond regular maintenance.

21 – Field and Runway

Airside Bituminous Rehabilitation/Electrical Construction **$1,100,000**

This project provides for taxiway edge lights to be replaced with LED lights on Taxiway P and a portion of the West end of Taxiway Q. This location aligns with the Runway LED Lighting Upgrades to be done at Runway 12L-30R this year.

Glycol Tank Repairs **$500,000**

Project provides for repair of leaking construction joints and cracks in concrete walls and floors of the glycol tanks located at the MSP Glycol Management Facility. The 2020 project will include repairs to the west wall of tank No. 3.

Miscellaneous Airfield Construction **$3,000,000**

This program supports Part 139 Airport Certification through grading and drainage improvements within runway safety areas, airfield pavement marking modifications, and electrical upgrades to airfield signs and runway guard lights.

Pavement Joint Sealing/Repair **$800,000**

This is an ongoing program to provide for the resealing of joints, sealing of cracks, and limited surface repairs on existing concrete pavements. The areas scheduled for sealing will be as defined in the overall joint sealing program or as identified by staff inspection in the early spring of each year.

26 – Terminal Roads/Landside

Tunnel/Bridge Rehabilitation **$100,000**

The MSP Campus has MAC-owned bridges and tunnels. Bridge and tunnel inspections are conducted each year to identify maintenance and repairs which are then implemented in a timely fashion.

10.2 APPENDIX B – Descriptions for 2020 Proposed Projects

31 – Parking

T1/T2 Parking Structure Rehabilitation **$2,500,000**

This is an annual program to maintain the integrity of the airport's multi-level parking structures. Projects typically include concrete repair, joint sealant replacement, expansion joint repairs, concrete sealing and lighting improvements.

39 – Public Areas/Roads

Landside Pavement Rehabilitation **$400,000**

This is an ongoing program to construct or reconstruct bituminous pavements outside of the Air Operations Area (AOA). Inspection of pavements and appurtenances determines what areas are to be prioritized for rehabilitation under each year's project.

Roadway Fixture Refurbishment **$150,000**

Many of the light poles, clearance restriction boards, sign units, fence sections, and canopies on the airport roadways need of repainting and maintenance. This project provides for refurbishment of these fixtures.

46 – Hangars and Other Buildings

MSP Campus Building Roof Replacements **$2,900,000**

A report has been developed within the MAC that evaluates one-half of the roofs every other year. This on-going program allows these roofs that have been evaluated to be prioritized and programmed for repair. In 2020, the roof of the Field Maintenance building will be replaced. Emergency repairs may also be needed on some other roofs; this program will provide dollars for such instances.

MSP TENANT PROJECTS

10 – Terminal 1

Concessions Upgrades/Revenue Development **$200,000**

This is an annual program to fund miscellaneous upgrades such as finishes, furniture, signage, and/or modified connections to utilities for the concession programs or other revenue generating programs at the airport.

Concourse G Infill and Delta Sky Club **$70,500,000**

The project will infill the space between Pods Four and Five on Concourse G, improving the gatehold space on the concourse level and constructing shell space for Delta to build out a Sky Club above. This project will also make adjustments to concessions spaces as required for the construction.

Terminal 1 FIS Global Entry Kiosk Relocation **$100,000**

This project will provide electrical and data utilities in the Terminal 1 FIS primary queue area to support additional and relocated CBP Global Entry Kiosks.

RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS

82 – Lake Elmo

21D Airfield Modifications **$3,000,000**

The updated long-term comprehensive plan for this airport proposes relocating and extending the primary runway northeast of its current alignment. The scope for this project includes taxiway construction and airfield modifications associated with construction of the replacement Runway 14-32.

10.2 APPENDIX B – Descriptions for 2020 Proposed Projects

21D Runway 14-32 Replacement **$2,000,000**

The updated long-term comprehensive plan for this airport proposes relocating and extending the primary runway northeast of its current alignment. This year's scope includes the second phase of the program which focuses on runway construction. This project includes all wetland mitigation, earthwork grading, subgrade improvements, electrical lighting system and bituminous pavement installation.

85 – Crystal

MIC Runway 14R-32L and Taxiway E Modifications **$5,000,000**

The updated long-term comprehensive plan for this airport proposes "right-sizing" the airport infrastructure, including decommissioning Runway 14R-32L. This project includes converting Runway 14R-32L into a parallel taxiway and rehabilitating portions of Taxiway Echo. The project also includes electrical vault improvements triggered by associated runway lighting modifications as well as hold bays, mill and overlay of the existing runway pavement, runway grooving, and the construction of a FAA-requested south service road. The project costs also include fees related to reimbursable agreements with the FAA.

RELIEVER AIRPORTS MAINTENANCE/FACILITY UPGRADE PROJECTS

80 – Reliever Airports

Reliever Building Miscellaneous Modifications **$400,000**

This program will address ongoing needs for repairs and modifications of MAC-owned buildings at the five of the reliever airports, excluding St. Paul. These items may include crew rest areas, heating, air conditioning, structural repairs, and aesthetic updates. The list of potential projects will be compiled and prioritized in early 2020.

Reliever Pavement Rehabilitation Miscellaneous Modifications **$300,000**

This program will address ongoing needs for crack sealing, joint repairs, pavement rejuvenation, and pavement repairs at the six reliever airports. The list of potential projects will be compiled and prioritized in early 2020.

81 – St. Paul

STP Airport Perimeter Roads **$400,000**

This is an ongoing effort to rehabilitate airport pavements through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project includes the rehabilitation of the airport access road along Airport Road and Eaton Street.

83 – Airlake

LVN LED Edge Lighting **$500,000**

This project includes the installation of the taxiway edge lighting system, edge lighting will include LED lighting.

LVN Underground Fuel Storage Tank Replacement **$100,000**

This project will replace aging underground storage tanks that are owned and maintained by the. The tanks were installed in 1991 and have a life expectancy of 25-30 years.

10.2 APPENDIX B – Descriptions for 2020 Proposed Projects

84 – Flying Cloud

FCM Taxiways A1, A3, F Pavement Rehabilitation **$300,000**

This project is part of an ongoing effort to rehabilitate aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project includes rehabilitation of Taxiways A1, A3, and Foxtrot.

FCM Underground Fuel Storage Tank Replacement **$400,000**

This project will replace aging underground storage tanks that are owned and maintained by the MAC.

85 – Crystal

MIC Taxilanes Pavement Rehabilitation **$550,000**

This is an ongoing program to reconstruct aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. The pavement condition index report as well as an inspection of the pavement will be completed to determine the area most in need of repair.

MIC Underground Fuel Storage Tank Replacement **$400,000**

This project will replace aging underground storage tanks that are owned and maintained by the MAC.

86 – Anoka County - Blaine

ANE Air Traffic Control Tower Equipment Upgrades **$100,000**

The Anoka County-Blaine Airport control tower is owned by MAC. The equipment used by the air traffic controllers has been in service for over 20 years and needs to be replaced and/or updated to ensure continued reliability.

ANE LED Edge Lighting Upgrade **$800,000**

This project includes replacement of the existing medium intensity runway edge lighting system, new edge lighting will include LED lighting.

ANE Lift Station Improvements **$410,000**

The City of Blaine is upgrading their sanitary sewer system throughout the city. Per the existing Airport Sewer and Water Maintenance Joint Powers Agreement, the MAC is responsible to fund the improvement of three lift stations at the airport. This project will reimburse the City for the MAC's share of the contract.

ANE Taxilanes Pavement Reconstruction **$750,000**

This is an ongoing program to reconstruct aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. The pavement condition index report as well as an inspection of the pavement will be completed to determine the area most in need of repair.

ANE Underground Fuel Storage Tank Replacement **$400,000**

This project will replace aging underground storage tanks that are owned and maintained by the MAC.

APPENDIX C – DRAFT DESCRIPTIONS FOR 2021-2026 PROJECTS THAT MEET CRITERIA DEFINED IN MINNESOTA STATUTE SECTION 473.614

MSP LONG TERM COMPREHENSIVE PLAN PROJECTS

Terminal 1

2021 Baggage Claim / Ticket Lobby Operational Improvements **$26,000,000**

This program addresses issues of congestion and functionality in the Baggage Claim and Ticket Lobby. It will provide the level of service requirements for short and medium-term growth of the origination and destination passengers, including walkways that meet required codes, public seating areas, centralized meet and greet space, unclaimed baggage storage, baggage service offices, concessions, improved lighting, fire protection throughout the space, structural enhancements, improved sight lines, curbside lighting and access, ticket counter consolidations, airline ticket offices, improved vestibules and access, east mezzanine removal/reduction, structural enhancements, curtain wall replacement, and other operational improvements.

2021 Baggage Handling System **$32,000,000**

This project is part of a multiphase program supporting the Operational Improvements program. The 2020 phase of work begins the multiple phase installation of new inbound claim devices, and ticket counter changes for the north departures and arrivals halls, matching the work of the south departures and arrivals halls. The work is coordinated with the Operational Improvements multi-phase projects including the façade expansion, ticket lobby and baggage claim phased projects, and replaces ticket counter belts and other conveyors that are end-of-life and not controlled by the BHS system.

2022 Baggage Claim / Ticket Lobby Operational Improvements **$45,800,000**

Please see the 2021 description.

2022 FIS Recheck Operational Improvements **$8,400,000**

Expansion to the Federal Inspection Services (FIS) luggage recheck area will be needed to accommodate additional passengers, along with lengthened queue area at the expanded Security Checkpoint 07, and relocation of the existing restrooms at gate G6 to accommodate the expansion.

2023 Baggage Claim / Ticket Lobby Operational Improvements **$6,000,000**

Please see the 2021 description.

2026 D-Pod Outbound Baggage System **$5,000,000**

This project will provide an expansion of the existing outbound baggage handling system in the lower level of the Concourse D-Pod area and may require an expansion to the building footprint.

RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS

Lake Elmo

2021 Runway 14-32 Replacement **$2,000,000**

This project will be the third phase of the Runway 14-32 Replacement project, which relocates and extends the primary runway northeast of its current alignment. This project includes all wetland mitigation, earthwork grading, subgrade improvements, electrical lighting system and bituminous pavement installation.

Appendix C – Draft Descriptions for 2021-2026 Projects that Meet Criteria Defined in Minnesota Statute Section 473.614

Airlake

2022 Runway 12-30 Improvements **$3,500,000**

This project will provide for the extension of Runway 12-30 from 4,098 feet to the maximum feasible length (approximately 4,850 feet) that can be provided by using declared distances without having to physically relocate Cedar Avenue, which lies directly east of the airfield. The project will also include taxiway and roadway modifications, and electrical lighting upgrades. MAC and the FAA will determine what, if any, environmental review is needed as the project timeline approaches.