



Metropolitan Airports Commission

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

August 31, 2023

RE: Metropolitan Airports Commission's Preliminary 2024-2030 Capital Improvement Program

Dear Sir or Madam:

Each year the Metropolitan Airports Commission (MAC) compiles its seven-year Capital Improvement Program (CIP) which outlines construction projects proposed for the Commission's system of airports. The projects shown in year one represent projects that have been reasonably defined for implementation in the upcoming calendar year. Staff will have authority to develop final plans and specifications and advertise for bids for these projects. Projects in year two have been identified as a need or potential need but require further study in order to properly determine the scope, feasibility, or cost of the project. Staff will have authority to develop plans and specifications for these projects to refine them for inclusion in next year's program. Projects in year three will be studied and preliminary plans prepared. The last four years of the program include projects that staff deems likely to be needed during this period. This portion of the program assists in financial planning and meets the requirements of the Metropolitan Council's investment framework.

In 1998, legislation was passed (MS 473.621, Subd. 6 as amended) concerning local review of the CIP. The legislation requires the MAC to complete a process to provide "affected municipalities" surrounding the airport the opportunity for discussion and public participation in the MAC's CIP process. An "affected municipality" is a municipality that is either adjacent to a MAC airport, is within the noise zone of a MAC airport as defined in the Metropolitan Development Guide, or has notified the MAC that it considers itself an "affected municipality." Your community has been identified as an "affected municipality" by Metropolitan Council staff based upon the criteria as defined in the statute.

The legislation requires that the MAC provide adequate and timely notice, including a description of the projects in the CIP, to each affected municipality. The notices must include agendas and meeting minutes at which the proposed CIP was to be discussed or voted on in order to provide the municipalities the opportunity to solicit public comment and participate in the development of the CIP on an ongoing basis. Comments received from the affected municipalities will be reviewed and a response developed.

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As has been done since 1999, the MAC has developed a schedule that will allow the affected municipalities the opportunity to participate in the CIP process. The implementation schedule for the 2024-2030 CIP is attached for your information. The shaded items represent actions/dates that pertain to the CIP. You will receive mailings regarding the CIP review and approval process. Once the Commission approves the preliminary CIP, you will have 60 days to provide comments on the proposed CIP to the MAC. Comments will be received until close of business on November 13, 2023. MAC staff will be available to attend any public meetings to answer questions regarding the projects in the CIP.

The Planning, Development, and Environment Committee of the Commission will be meeting on September 5, 2023 to review and make a recommendation to the full Commission on the Preliminary 2023 CIP. The approval of the Preliminary CIP will start the mandated environmental review process. Attached is the agenda for the Committee meeting, the Staff memo on the CIP, a spreadsheet showing the proposed 2024-2030 CIP, and project narratives for projects in year 2024.

All comments and questions on either the process or the CIP should be addressed to:

Heather Leide, Director of Airport Development
Metropolitan Airports Commission
6040-28th Avenue South
Minneapolis, MN 55450
Phone: 612.726.8128
Email: heather.leide@mspmact.org

Sincerely,



Heather J. Leide, AIA
Director, Airport Development (Project Initiation)

Attachments

rt

c: Jenn Felger, PD&E Coordinator
Marisa Trapp, Manager of Environmental Affairs
Bridget Rief, VP of Planning & Development
CIP file

2024-2030 CIP Development Schedule

Schedule	Capital Improvement Program	Responsibility
January 1	Initialize Capital Improvement Program (CIP) development discussions	Airport Development
January 1 - May 1	Requests for CIP Projects to Airport Development	MAC Departments
February 1 - July 31	Develop Project Scopes, Costs, and Prioritization	MAC Departments & Airport Development
February 1	Preliminary Target Funding Sources/Amounts	Airport Development & Finance
February 1 - July 31	Develop Draft Preliminary CIP	Airport Development & Finance
July 31 - October 6	Prepare Assessments of Environmental Effects (AOEEs)	Planning and Development & Environmental Affairs
Thursday, August 31, 2023	Mailing to Affected Municipalities: Notice of September Planning, Development, & Environment (PD&E) Committee Meeting & CIP documents	Airport Development
Tuesday, September 5, 2023	Recommendation by PD&E Committee to Commission of Preliminary CIP for Environmental Review/Authorization to Hold Public Hearing on AOEE	Airport Development
Thursday, September 14, 2023	Mailing to Affected Municipalities: Notice of September PD&E Committee Meeting Minutes and September Commission Meeting Agenda. This starts the 60-day Preliminary CIP public comment period	Airport Development
Tuesday, September 19, 2023	Mailing to Affected Municipalities: Notice of Approval of Preliminary CIP by Commission for Environmental Review/Authorization to hold Public Hearing on AOEE	Airport Development
Tuesday, October 10, 2023	Submittal to EQB Monitor (Environmental Quality Board), Star Tribune & Pioneer Press: AOEE Public Hearing Notice	Environmental Affairs & Airport Development
Tuesday, October 17, 2023	AOEE Public Hearing Notice is Published in EQB Monitor, Star Tribune, & Pioneer Press. This starts the 30-day AOEE public comment period	Environmental Affairs & Airport Development
Tuesday, October 24, 2023	Mailing to Affected Municipalities: Approval of September Commission Meeting Minutes	Airport Development
Monday, November 6, 2023	Public Hearing on AOEE at November PD&E Committee	Planning and Development & Environmental Affairs
Thursday, November 9, 2023	Technical Advisory Committee (TAC) Planning Committee	Metropolitan Council
Monday, November 13, 2023	End of 60-day Public Comment Period for Preliminary CIP	Affected Municipalities
Friday, November 17, 2023	End of 30-day Public Comment Period for AOEE	Affected Municipalities
Thursday, November 30, 2023	Mailing to Affected Communities: Notice of December PD&E Committee Meeting	Airport Development
Monday, December 4, 2023	Recommendation of Final CIP by PD&E Committee to Commission	Airport Development & Finance
Wednesday, December 6, 2023	Technical Advisory Committee (TAC)	Metropolitan Council

2024-2030 CIP Development Schedule

Schedule	Capital Improvement Program	Responsibility
Thursday, December 14, 2023	Mailing to Affected Municipalities: December PD&E Committee Meeting Minutes and December Commission Meeting Agenda	Airport Development
Monday, December 18, 2023	Approval of Final CIP by Commission	Airport Development
Tuesday, December 19, 2023	Notification of Commission action to EQB	Environmental Affairs
Wednesday, December 20, 2023	Transportation Advisory Board (TAB)	Metropolitan Council
Monday, January 8, 2024	Metropolitan Council - Transportation Committee	Metropolitan Council
Wednesday, January 24, 2024	Metropolitan Council	Metropolitan Council
Thursday, January 25, 2024	Mailing to Affected Communities: Approval of December Commission Meeting Minutes	Airport Development
<p>Shaded items represent actions/dates which pertain to the Affected Municipalities as defined in Minnesota Statutes 473.621, Subd. 6 as amended</p>		
<p>All dates are tentative and subject to change</p>		



Metropolitan Airports Commission

TO: Planning, Development and Environment Committee

FROM: Heather J. Leide, Director – Airport Development Project Initiation (612-726-8128)

SUBJECT: **Preliminary 2024-2030 Capital Improvement Program
Program Overview**

DATE: August 30, 2023

FOR ACTION

Summary

Each year, MAC staff prepares a seven-year Capital Improvement Program (CIP) for review and approval by the full Commission. A preliminary version of the 2024-2030 CIP listing is provided in September in order to give Commissioners, Affected Municipalities, and the public an opportunity to see what is planned for the upcoming seven-year program, with specifics included for the proposed projects forthcoming for construction contract award in 2024.

The seven-year CIP includes projects for both the Minneapolis-St. Paul International Airport (MSP) and the six reliever airports in the Reliever Airport System. The majority of projects in the attached project listing focus on rehabilitation and replacement of airport infrastructure, existing assets, and terminal systems to ensure that airport safety, security, and operations are not compromised. This program advances the MAC's purpose to provide exceptional airport experiences so Minnesota thrives.

Fiscal Impact

No Impact Operating Budget CIP Other

The Airport Development Department works closely with Finance staff during the CIP development process to review funding for the seven-year program. Any project changes to the preliminary CIP will be reflected in the final version brought to the Commission in December for final adoption. At that time, Finance will also provide a companion funding analysis for the first three years of the program for information.

Action Requested

- 1. Recommend that the full Commission accept the attached preliminary 2024-2030 Capital Improvement Program for purposes of conducting the affected municipalities review and the Assessment of Environmental Effects (AOEE) process; and**
- 2. Authorize staff to proceed with these processes.**

Background

The 2024-2030 preliminary CIP includes the following (attached to this memo):

- (a) Anticipated CIP process schedule;
- (b) Draft listing of projects by category with proposed year and estimated cost for each;
- and
- (c) Draft project narratives for the projects listed in 2024.

Applicable Legal Authority

- (a) MAC's Bylaws, Minnesota Statutes Sec. 473.621, Subd. 6 and 7.

Analysis

The projects in the first year of the program (2024) are primarily projects that have been carried forward from past years' programs. MAC staff worked hard to forecast project needs and make requests three to four years or more in the future. This preliminary draft reflects updated scopes and estimates developed by the project teams in the course of their work authorized with approval of the 2023-2029 CIP. Staff is aware that the MSP Long Term Plan (LTP) will call for additional significant projects, but they will not be reflected in the CIP until the LTP is approved and adopted by the Commission. In particular for Terminal 2, and with the expectation that improvements will be recommended in the near term, staff has included fees in 2024 to assist in development of the appropriate timing and budgets for those projects after completion of the LTP.

This preliminary draft ensures that potential projects will be vetted through the affected municipalities review and AOEE processes. Staff will work closely to refine funding plans, coordinate grant opportunities, and consider critical timing with project stakeholders prior to bringing the final draft to the Commission in December.

In 2024, the CIP lists dollars associated with the Terminal 1 arrivals and departures levels (a final year of enhancements continuing from previous years) via the Operational Improvements Program. This program provides benefit to the local travelers who utilize the check-in, baggage drop, baggage claim, and security-related passenger processing facilities. Other planned major investments at MSP include necessary pavement reconstruction, an expansion of Terminal 2 to the north, the second year of work on the infill between Pods 2 and 3 on Concourse G, the second phase of the Concourse and Gatehold Modernization project to be completed with Delta Airlines, and the second phase of the Safety and Security Center.

Also note that the CIP includes nearly \$30 million in 2024 for planning and development work at the Reliever Airports, including a Customs and Border Protection General Aviation Facility at St. Paul.

The preliminary seven-year program as attached will be made available to affected municipalities for review and comment. Affected municipalities will have 60 days to review the proposed program and offer comments to MAC staff for consideration when preparing the final program recommendations for review by the full Commission in December. The 60-day comment period is anticipated to run from September 21 through November 20, 2023.

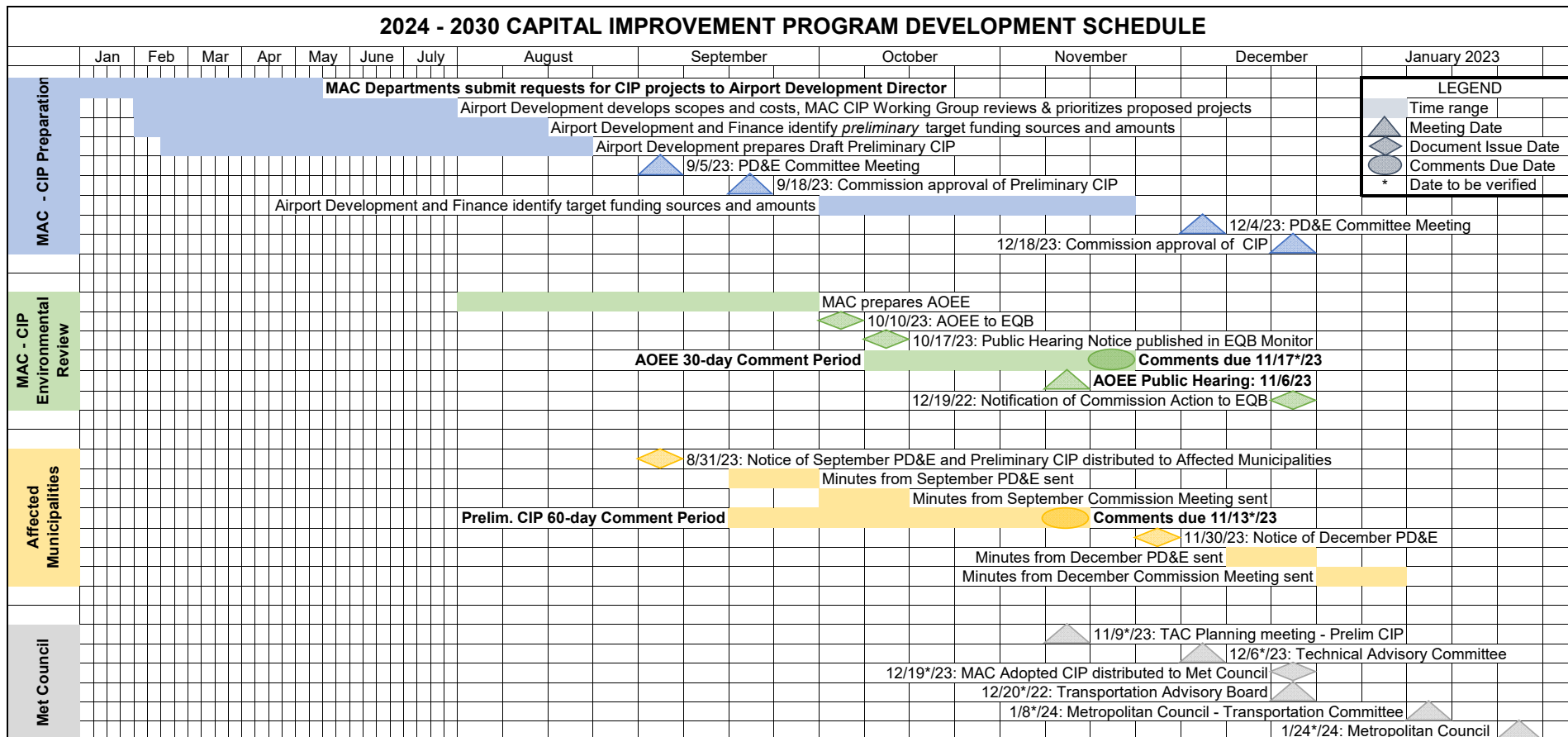
The preliminary program will also be utilized to develop the annual Assessment of Environmental Effects (AOEE) document, as outlined in the companion memorandum to this agenda item.

As required by Minnesota law, MAC's seven-year CIP must be reviewed by the Metropolitan Council. This preliminary program will be submitted to the sub-committees of the Metropolitan Council for initial review and discussion. Upon MAC's adoption of the final December version of the program, MAC will request review by the full Metropolitan Council of the adopted program in January 2024.

Looking forward, please note that the recommended action in December specific to the 2024-2030 CIP will include final adoption of a proposed final CIP as well as authorize staff to:

- (a) Prepare plans and specifications and advertise for bids for the 2024 projects.
- (b) Conduct further studies, including necessary destructive demolition and repair, to refine the scopes and costs, and to prepare plans and specifications for the 2025 projects.
- (c) Conduct studies and develop preliminary plans and specifications for the 2026 projects.
Utilize consultants as necessary in accordance with MAC's consultant use policies.
- (d) Initiate appropriate documentation to apply for federal, state, and PFC funding.
- (e) Forward the adopted 2024-2030 CIP to the Metropolitan Council for their review.

2024 - 2030 CAPITAL IMPROVEMENT PROGRAM DEVELOPMENT SCHEDULE



LEGEND

- Time range
- Meeting Date
- Document Issue Date
- Comments Due Date
- * Date to be verified

2024-2030 Capital Improvement Program - Preliminary Draft	2024	2025	2026	2027	2028	2029	2030
MSP End of Life/Replacement Projects							
10 - Terminal 1							
Concourse and Hub Tram Replacement			\$300,000,000	\$300,000,000			
Cooling Unit Replacement	\$1,125,000						
Passenger Boarding Bridge Replacements	\$4,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000
Recarpeting Program		\$2,000,000					
Terminal 1 Outbound Baggage Handling System Replacement					\$250,000,000		
13 - Energy Management Center							
Terminal 1 Boiler & Chiller Replacement & EMC Expansion		\$250,000		\$420,000,000			
Concourse E and F Bridge Heating and Cooling System Replacement	\$2,200,000	\$1,800,000					
GTC Dual-temperature Pump Improvements	\$2,300,000						
Variable Air Volume (VAV) Box Replacement	\$1,900,000		\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
21 - Field and Runway							
30L Deicing Pad Expansion					\$20,000,000		
30L Deicing Pad Reconstruction		\$11,500,000		\$15,000,000			
30L EMAS Replacement		\$19,000,000					
Airfield Snow Melter Replacement/Upgrades	\$1,800,000	\$1,800,000	\$1,800,000	\$2,000,000	\$2,000,000		
Bituminous Shoulder Reconstruction	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000			
Concourse G Apron Pavement Reconstruction	\$11,600,000	\$13,500,000			\$15,000,000	\$14,000,000	\$16,000,000
Runway 12L-30R Reconstruction			\$35,000,000				
Taxiway A Pavement Reconstruction			\$0		\$4,500,000		
Taxiway B Pavement Reconstruction	\$2,400,000	\$7,500,000			\$6,000,000	\$5,000,000	\$8,000,000
Taxiway C Pavement Reconstruction						\$10,000,000	
Taxiway D Reconstruction		\$2,500,000					
Taxiway H Pavement Reconstruction					\$6,500,000		
Taxiway J Pavement Reconstruction					\$7,500,000		
Taxiway R Pavement Reconstruction			\$9,500,000				
26 - Terminal Roads/Landside							
Terminal 1 Access Roadway Bridge Rehabilitation							
UPS Loop Pavement Reconstruction	\$2,000,000						
Variable Message Signs Replacement, Phase 3	\$1,600,000						
31 - Parking							
Parking Ramp Snow Melter Replacement/Upgrades	\$1,350,000	\$1,350,000	\$1,400,000	\$1,400,000	\$1,400,000		
36 - Terminal 2							
Terminal 2 Pre-Conditioned Air (PCA)							
Terminal 2 Recarpeting Program	\$1,300,000	\$150,000					
Terminal 2 Ticket Counter/Insert Replacement		\$730,000					
39 - Public Areas/Roads							
East 62nd Street Reconstruction					\$4,100,000		
East 70th Street Reconstruction	\$2,400,000						
Post Road Reconstruction Project			\$5,000,000				
56 - Trades/Maintenance Buildings							
MSP Liquid Deicer Storage Facility	\$11,200,000						
70 - General Office/Administration							
GO Building VAV Replacement and Upgrade		\$2,000,000					
MSP End of Life/Replacement Projects Subtotal	\$48,175,000	\$75,080,000	\$365,700,000	\$769,500,000	\$310,900,000	\$41,000,000	\$36,000,000

2024-2030 Capital Improvement Program - Preliminary Draft	2024	2025	2026	2027	2028	2029	2030
MSP IT Projects							
10 - Terminal 1							
Concourse C and G Digital Directory Replacement	\$200,000						
MAC Technology Upgrades	\$10,000,000	\$10,000,000	\$11,000,000	\$11,000,000	\$11,000,000	\$11,000,000	\$12,000,000
Telecom Room Equipment Continuity (TREC)	\$1,510,000	\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000
12 - Federal Inspection Station (FIS)							
Customs and Border Protection Infrastructure		\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
36 - Terminal 2							
Upgrade and Modernize Terminal 2 Kiosks		\$1,000,000					
46 - Hangars and Other Buildings							
Multiple Points of Entry Facility		\$5,000,000	\$5,000,000	\$5,000,000			
63 - Police							
Badging and Door Access (SAACS/ProWatch) Modernization			\$2,100,000				
Card Access Modifications	\$2,500,000		\$2,800,000		\$2,500,000		
Public Safety Land Mobile Radio System Solutions	\$500,000	\$1,000,000					
Public Safety Video (IVISN) Modernization		\$1,100,000	\$1,000,000	\$1,000,000			
MSP IT Projects Subtotal	\$14,710,000	\$20,850,000	\$24,650,000	\$19,750,000	\$16,250,000	\$13,750,000	\$14,750,000

MSP Long Term Comprehensive Plan Projects							
10 - Terminal 1							
Baggage Claim/Ticket Lobby Operational Improvements	\$25,000,000						
Checkpoint Expansion						\$11,000,000	
Concourse G Infill - Pod 2-3	\$320,000,000						
Design and Construction Standards Update							
D-Pod Outbound Baggage System				\$15,000,000			
MSP Airport Layout Plan		\$1,000,000					
MSP Environmental Review		\$2,000,000					
MSP Long Term Plan						\$3,000,000	
21 - Field and Runway							
MSP Obstructions Removals			\$1,000,000		\$1,000,000		
NAVAIDS Study for North Campus Development							
Runway 30R Parallel Taxiway			\$12,000,000	\$10,000,000	\$14,000,000		
36 - Terminal 2							
Long Term Plan Projects (fees)	\$1,000,000						
Terminal 2 North Gate Expansion	\$237,000,000						
MSP Long Term Comprehensive Plan Projects Subtotal	\$583,000,000	\$3,000,000	\$13,000,000	\$25,000,000	\$15,000,000	\$14,000,000	\$0

2024-2030 Capital Improvement Program - Preliminary Draft	2024	2025	2026	2027	2028	2029	2030
MSP Maintenance/Facility Upgrade Projects							
10 - Terminal 1							
ADO Office Expansion	\$4,000,000						
Art Display Areas	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
Arts Master Plan	\$1,260,000	\$1,110,000	\$1,810,000	\$1,685,000	\$600,000	\$600,000	
Concourse A Heating System Upgrade	\$11,000,000						
Delivery Node Redevelopment	\$2,300,000	\$2,700,000	\$7,800,000	\$4,320,000	\$5,000,000		
F/G Connector & Skyclub Repairs and Improvements		\$1,100,000					
Folded Plate Repairs		\$43,400,000					
Lavatory Buildings Rehab	\$4,400,000						
Lighting Infrastructure Technology and Equipment (LITE)	\$1,500,000	\$2,550,000	\$1,500,000	\$2,550,000	\$1,500,000	\$2,200,000	\$3,000,000
LRT Stations Updates		\$1,600,000					
Main Mall Modernization					\$3,500,000	\$3,500,000	
Restroom Upgrade Program	\$2,295,000	\$2,400,000	\$3,200,000	\$2,625,000	\$2,050,000	\$2,050,000	\$2,050,000
Steam System Upgrade Program	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000		
Terminal 1 Curbside Canopy Repairs and Lighting Upgrades	\$350,000						
Terminal 1 Employee Breakroom		\$450,000					
Terminal 1 Information Booth Replacements		\$850,000					
Terminal 1 Tug Drive Heater Replacement	\$2,000,000						
Terminal 1 Tug Drive Waterproofing	\$2,900,000	\$2,900,000	\$2,900,000	\$2,900,000			
Terminal 1 Tram Maintenance	\$1,000,000						
Way-Finding Sign Replacement	\$1,000,000	\$3,000,000			\$2,000,000	\$2,000,000	
12 – Federal Inspection Station (FIS).							
FIS Facility Upgrades	\$2,175,000		\$845,000				
13 - Energy Management Center							
Building Management (IMACS) Replacement		\$4,200,000					
Chiller Plant Optimization	\$4,000,000						
Energy Savings Program		\$2,000,000		\$2,000,000			
Indoor Air Quality Monitoring System			\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
MAC Automation Infrastructure Program	\$5,300,000	\$2,300,000	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	
Material Storage Building - Boiler Room Addition							
Steam Trap Monitoring System			\$3,000,000				
Victaulic Piping Replacement		\$19,000,000	\$4,000,000	\$2,200,000	\$2,300,000	\$2,350,000	
21 - Field and Runway							
Anti-Climb Fencing & Leighting	\$1,000,000						
Apron Lighting LED Upgrade	\$5,000,000	\$1,000,000	\$3,000,000	\$1,000,000	\$1,000,000		
Field Maintenance Building Efficiency Program		\$53,000,000		\$105,000,000		\$46,000,000	
GBAS - SLS-4000 Installation		\$7,000,000					
Runway 12L Deice Pad Reconfiguration	\$700,000						
Runway LED Lighting Upgrade				\$3,000,000			
Taxiways B & Q Islands	\$800,000						
Terminal 2 Glycol Lift Station/Forcemain		\$1,500,000					
Tunnel Lighting LED Upgrade	\$1,100,000	\$1,000,000	\$900,000	\$400,000	\$1,200,000		
26 - Terminal Roads/Landside							
Tunnel Approaches Reconstruction							
31 - Parking							
Electric Vehicle Charging Network Expansion		\$1,500,000	\$850,000	\$850,000	\$1,500,000	\$1,500,000	\$1,500,000
Parking Guidance System		\$6,500,000					
Red/Blue Parking Levels 2 & 3		\$9,200,000					
Terminal 2 Landside Office remodel		\$250,000					
<i>MSP Maintenance/Facility Upgrade Projects continues on the next page</i>							

2024-2030 Capital Improvement Program - Preliminary Draft	2024	2025	2026	2027	2028	2029	2030
MSP Maintenance/Facility Upgrade Projects (continued)							
36 - Terminal 2							
Ramp Information Display System (RIDS)		\$3,600,000					
Terminal 2 Baggage Handling System		\$410,000					
Terminal 2 Gate Area Passenger Amenities		\$1,000,000					
Terminal 2 Gate Desk/Podium Replacement					\$450,000		
Terminal 2 Ground Transportation Waiting Area Expansion		\$400,000		\$0			
Terminal 2 Lobby Passenger Flow Program	\$1,000,000						
Terminal 2 MUFIDS/EVIDS Millwork Upgrades		\$350,000					
Terminal 2 Skyway to LRT Flooring Installation		\$800,000					
Terminal Door Locks and Emergency Egress Upgrades	\$400,000						
39 - Public Areas/Roads							
34th Avenue Bus Area Reconstruction	\$800,000						
34th Avenue Reconstruction			\$8,200,000	\$8,200,000			
34th Avenue Sanitary Sewer Replacement			\$2,200,000				
34th Avenue Traffic Control Improvements	\$200,000						
Diverging Diamond Intersection Rehabilitation					\$380,000		
Highway 494 Terminal and Airline Signs							
Taxi Cab Holding Lot Rehabilitation for Cell Phone Lot							
Terminal 1 Ground Transportation Modifications							
Terminal 1 Inbound Roadway Median Improvements		\$3,300,000					
Tunnel Fan Replacement	\$4,700,000	\$6,800,000					
46 - Hangars and Other Buildings							
Campus Out Building Study		\$300,000					
MAC Storage Facility	\$34,000,000						
Safety and Security Center	\$163,000,000						
56 - Trades/Maintenance Buildings							
Trades Building Rehabilitation & Addition			\$25,000,000				
63 - Police							
Emergency Communications Center Updates	\$150,000						
Perimeter Fence Intrusion Detection System		\$1,000,000					
Perimeter Gate Security Improvements		\$6,500,000	\$6,500,000				
Police Department Improvements at Terminals 1 & 2					\$1,500,000		
Police Department Remote Threat Isolation and Training Building.		\$15,500,000					
Public Safety Modifications		\$1,000,000			\$850,000	\$850,000	
Squad Parking Modifications			\$140,000				
66 - Fire							
ARFF 1 Garage Door Replacement					\$1,500,000		
Fire Protection Systems Upgrades		\$10,000,000				\$10,000,000	
70 - General Office/Administration							
Digital Signage In/At The GO			\$300,000				
GO Workspace Improvements	\$250,000						
76 - Environment							
Firefighting Foam System Conversion	\$3,000,000						
Glycol Sewer & Storm Sewer Inspection/Rehabilitation	\$1,700,000	\$600,000				\$2,000,000	\$1,000,000
Ground Service Equipment (GSE) Electrical Charging Stations	\$500,000						
Infield Fueling Facility Secondary Containment		\$400,000					
Lift Station at Ponds 1 and 2		\$2,300,000					
Maintenance Campus Infiltration Pond	\$13,100,000						
MSP Pond 3 / 494 Pond Sediment Removal & Repairs		\$5,500,000					\$14,000,000
Runway 12R-30L Glycol Forcemain Environmental Improvements	\$1,700,000						
Glycol Tank Roof Repairs					\$700,000		
Photovoltaic System Improvements	\$3,100,000						
MSP Maintenance/Facility Upgrade Projects Subtotal	\$283,530,000	\$232,120,000	\$77,395,000	\$147,160,000	\$36,100,000	\$66,700,000	\$22,800,000

2024-2030 Capital Improvement Program - Preliminary Draft	2024	2025	2026	2027	2028	2029	2030
MSP Noise Mitigation Projects	\$1,000,000	\$500,000					
MSP Ongoing Maintenance Programs							
10 - Terminal 1							
Air Handling Unit Replacement	\$5,100,000	\$13,000,000	\$13,000,000	\$13,000,000	\$13,000,000	\$13,000,000	\$13,000,000
Baggage System Upgrades	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
Concourse G Rehabilitation	\$10,000,000						
Conveyance System Upgrades		\$3,000,000					
Electrical Infrastructure Program (EIP)	\$2,500,000		\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$3,000,000
Electrical Substation Replacement	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000			
Emergency Power Upgrades	\$2,500,000		\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$3,000,000
Ground Power Substation Replacement	\$9,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000
Plumbing Infrastructure Upgrade Program	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$800,000
Terminal Building Remediation Program	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,500,000
Terminal Miscellaneous Modifications	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$3,100,000	\$3,100,000	\$3,100,000
13 - Energy Management Center							
EMC Life Safety Infrastructure Program	\$1,900,000	\$1,900,000	\$1,900,000	\$1,900,000	\$1,900,000	\$1,900,000	\$1,900,000
EMC Plant Upgrades	\$2,100,000	\$2,150,000	\$2,200,000	\$2,300,000	\$2,400,000	\$2,500,000	
21 - Field and Runway							
Airside Electrical Construction	\$2,500,000	\$5,100,000	\$2,500,000	\$2,000,000	\$2,000,000	\$2,000,000	
Airside Roadway Pavement Restoration	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$3,600,000
Miscellaneous Airfield Construction	\$3,500,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	
Pavement Joint Sealing/Repair	\$800,000	\$800,000	\$800,000	\$1,000,000	\$1,000,000	\$1,000,000	\$3,000,000
Terminal 2 Apron Reconstruction				\$6,500,000	\$8,000,000	\$8,000,000	
26 - Terminal Roads/Landside							
Tunnel/Bridge Inspections	\$120,000	\$120,000	\$120,000	\$120,000	\$150,000	\$150,000	\$150,000
Tunnel/Bridge Miscellaneous Modifications		\$1,000,000		\$1,000,000		\$1,000,000	
31 - Parking							
Parking Structure Rehabilitation	\$5,500,000	\$4,750,000	\$5,650,000	\$5,000,000	\$6,000,000	\$5,175,000	\$6,350,000
Terminal 2 Parking Facility Watermain Improvements	\$670,000						
39 - Public Areas/Roads							
Concrete Joint Repair	\$1,000,000	\$300,000	\$400,000	\$1,200,000	\$2,900,000	\$750,000	
Landside Pavement Rehabilitation	\$500,000	\$500,000	\$500,000	\$500,000	\$600,000	\$600,000	\$600,000
Landside Utility Rehabilitation	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	
Roadway Fixture Refurbishment	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$200,000
46 - Hangars and Other Buildings							
Campus Building Rehab Program	\$1,500,000	\$1,500,000		\$1,500,000		\$1,500,000	
Campus Parking Lot Reconstructions	\$3,075,000		\$0		\$3,075,000		
End of Life Campus Building Demolition		\$400,000	\$3,700,000				
MSP Campus Building Roof Replacements	\$6,100,000	\$12,500,000	\$10,200,000	\$1,000,000	\$1,000,000	\$1,000,000	\$2,000,000
56 - Trades/Maintenance Buildings							
North Field Maintenance Mechanical Infrastructure Project			\$5,000,000				
Sump Pump Controls	\$4,000,000	\$4,000,000	\$3,500,000				
70 - General Office/Administration							
GO Building Improvements	\$500,000		\$500,000		\$500,000		\$500,000
MSP Ongoing Maintenance Programs Subtotal	\$81,765,000	\$81,920,000	\$85,370,000	\$72,920,000	\$68,925,000	\$64,975,000	\$55,200,000

2024-2030 Capital Improvement Program - Preliminary Draft	2024	2025	2026	2027	2028	2029	2030
MSP Tenant Projects							
10 - Terminal 1							
Concessions Upgrades/Revenue Development	\$220,000	\$224,000	\$228,800	\$234,600	\$241,500	\$250,000	\$260,000
Concourse and Gatehold Modernization	\$85,600,000	\$73,100,000					
Elevator and Concourse Improvements Related to Relocated United Club					\$1,000,000		
Terminal 1 Pre-Conditioned Air (PCA)	\$2,500,000						
36 - Terminal 2							
Terminal 2 Concessions Redevelopment	\$2,000,000						
Terminal 2 Multipurpose Facility (study)	\$300,000						
39 - Public Areas/Roads							
Tenant Parking Lot Reconstruction		\$2,900,000					
46 - Hangars and Other Buildings							
Ground Service Equipment (GSE) Maintenance Facility					\$2,000,000		
MSP Tenant Projects Subtotal	\$90,620,000	\$76,224,000	\$228,800	\$234,600	\$3,241,500	\$250,000	\$260,000

2024-2030 Capital Improvement Program - Preliminary Draft	2024	2025	2026	2027	2028	2029	2030
Reliever Airports Long Term Comprehensive Plan Projects							
81 - St. Paul							
STP Airport Layout Plan	\$500,000						
STP Environmental Review			\$800,000				
STP Long Term Comprehensive Plan	\$800,000						
82 - Lake Elmo							
21D Airport Layout Plan		\$100,000				\$500,000	
21D Long Term Comprehensive Plan						\$800,000	
83 - Airlake							
LVN Airport Layout Plan			\$100,000			\$500,000	
LVN Long Term Comprehensive Plan						\$800,000	
LVN Runway 12-30 Improvements		\$4,400,000					
84 - Flying Cloud							
FCM Environmental Review		\$800,000					
FCM Purchase and Demolition of Hangars	\$1,300,000						
FCM South Building Area Utilities			\$800,000				
85 - Crystal							
MIC Airport Layout Plan	\$100,000				\$500,000		
MIC Environmental Review							\$800,000
MIC Long Term Comprehensive Plan					\$800,000		
86 - Anoka County - Blaine							
ANE Airport Layout Plan		\$500,000					
ANE Building Area Development - Xylite St. Relocation		\$1,000,000					
ANE Environmental Review				\$800,000			
ANE Long Term Comprehensive Plan Update		\$800,000					
Reliever Airports Long Term Comprehensive Plan Projects Subtotal	\$2,700,000	\$7,600,000	\$1,700,000	\$800,000	\$1,300,000	\$2,600,000	\$800,000

2024-2030 Capital Improvement Program - Preliminary Draft	2024	2025	2026	2027	2028	2029	2030
Reliever Airports Maintenance/Facility Upgrade Projects							
80 – Reliever Airports							
Reliever Airports Security Fencing, Gates & Lighting	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Reliever Indoor Air Quality Project				\$1,400,000			
Relievers Building Miscellaneous Modifications	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Relievers Obstruction Removal		\$300,000		\$300,000		\$300,000	
Relievers Pavement Rehabilitation Miscellaneous Modifications	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Relievers Used Oil Sheds & Tanks		\$550,000					
81 - St. Paul							
STP Airport Perimeter Roads		\$500,000					
STP Airport Road and Eaton Street Retaining Wall					\$700,000		
STP Cold Equipment Storage Building			\$750,000				
STP Customs and Border Protection General Aviation Facility	\$4,500,000						
STP Equipment Storage Building and Employee Crew Rooms					\$4,000,000		
STP Floodwall Inspection and Repairs							
STP Infrastructure Replacement		\$1,200,000					
STP Intelligent Monitoring and Control System (IMACS) Expansion	\$2,250,000						
STP LED Edge Lighting Upgrades	\$1,500,000						
STP MAC Building Improvements		\$200,000		\$200,000		\$200,000	
STP Pavement Rehabilitation-Taxilanes/Tower Road			\$750,000				
STP Runway 13-31 Pavement Reconstruction		\$5,000,000					
STP Runway 14-32 EMAS Replacement				\$10,000,000			
STP Runway 14-32 Crack Sealing	\$250,000						
STP Runway 14-32 Reconstruction		\$5,000,000	\$5,000,000				
STP Storm Sewer Improvements	\$1,500,000						
STP Taxiway B Rehabilitation		\$800,000					
STP Taxiway Lima Rehabilitation				\$200,000			
STP Vehicle Gate Replacement							
82 - Lake Elmo							
21D AWOS Replacement		\$200,000					
21D Intelligent Monitoring and Control System (IMACS)		\$3,500,000					
21D Materials Storage Building	\$500,000						
21D North Building Area Pavement Rehabilitation	\$900,000						
21D North Service Roads Rehabilitation		\$500,000					
21D Northside Taxiway Reconstruction		\$600,000				\$600,000	
21D Runway 04-22 Pavement Rehabilitation	\$4,000,000						
21D Taxiway Echo Edge Lighting			\$600,000				
83 - Airlake							
LVN AWOS Replacement		\$100,000					
LVN Existing Runway 12-30 Reconstruction		\$3,500,000					
LVN Intelligent Monitoring and Control System (IMACS)			\$1,150,000				
LVN LED Edge Lighting							
LVN Maintenance Building Renovation	\$1,250,000						
LVN North Service Road Pavement Rehabilitation				\$500,000			
LVN North Taxilanes Pavement Rehabilitation				\$1,250,000			
LVN Perimeter Fencing and Gates				\$4,000,000			
LVN South Building Area Utilities and Taxilanes			\$1,300,000				
LVN Taxiway Bravo Pavement Rehabilitation		\$600,000					
<i>Reliever Airports Maintenance/Facility Upgrade Projects continues on the next page</i>							

2024-2030 Capital Improvement Program - Preliminary Draft	2024	2025	2026	2027	2028	2029	2030
<i>Reliever Airports Maintenance/Facility Upgrade Projects (continued)</i>							
84 - Flying Cloud							
FCM Airport Access Roads and Tango Lane	\$600,000						
FCM Airport Access Roads Pavement Rehabilitation				\$500,000	\$500,000	\$500,000	
FCM Electrical Vault Modifications			\$500,000				
FCM Executive Aviation/MAC Maint Apron	\$700,000						
FCM Gate Replacements		\$500,000					
FCM Infrastructure Replacement		\$1,750,000					
FCM Intelligent Monitoring and Control System (IMACS)	\$2,250,000						
FCM MAC Building Improvements			\$600,000				
FCM Northside Access Road from Bravo to November Lane		\$900,000					
FCM Parcel 7 Sewer and Water							
FCM Runway 10R-28L Crack Sealing	\$200,000						
FCM Runway 10R-28L Pavement Rehabilitation			\$2,700,000				
FCM Runway 18-36 Pavement Rehabilitation						\$700,000	
FCM Spring Lane Extension and Taxilane Connector	\$600,000						
FCM Tower Equipment for Airfield Lighting and Utilities		\$1,000,000					
FCM Underground Fuel Storage Tank Replacement	\$500,000						
85 - Crystal							
MIC Existing Hangar Revitalization			\$800,000				
MIC Gate Replacement			\$800,000				
MIC Intelligent Monitoring and Control System (IMACS)			\$1,150,000				
MIC LED Edge Lighting Upgrade							
MIC Runway 6L-24R Pavement Rehabilitation				\$2,500,000			
MIC Runway 6L-24R and Taxiway Gulf Pavement Rehabilitation		\$250,000					
MIC Service Road Pavement and Fencing			\$600,000				
MIC Stormwater Monitoring Location Drainage Repair		\$100,000					
MIC Taxilanes Pavement Rehabilitation		\$600,000			\$600,000		
MIC Taxiway Alpha Pavement Reconstruction						\$1,200,000	
MIC Tower Parking Lot Reconstruction		\$1,500,000					
MIC Underground Fuel Storage Tank Replacement	\$500,000						
86 - Anoka County - Blaine							
ANE Airport Rd and GA Blvd Pavement Rehabilitation	\$700,000	\$700,000	\$700,000				
ANE Electrical Vault Improvements		\$750,000					
ANE Equipment Storage and Maintenance Building	\$1,200,000						
ANE Gate Controller Upgrades			\$400,000				
ANE Intelligent Monitoring and Control System (IMACS)		\$1,150,000					
ANE Pavement Rehabilitation - Taxiway A and Edge Lights							
ANE Runway 18-36 Pavement Rehabilitation		\$3,800,000					
ANE Runway 9-27 Pavement Rehabilitation					\$3,750,000		
ANE Taxiway B Pavement Rehabilitation						\$1,400,000	
ANE Underground Fuel Storage Tank Replacement	\$500,000						
ANE West Perimeter Road	\$1,800,000						
Reliever Airports Maintenance/Facility Upgrade Projects Subtotal	\$27,100,000	\$36,450,000	\$18,700,000	\$22,350,000	\$9,850,000	\$5,800,000	\$900,000
MSP Subtotal	\$1,102,800,000	\$489,694,000	\$566,343,800	\$1,034,564,600	\$450,416,500	\$200,675,000	\$129,010,000
Relievers Subtotal	\$29,800,000	\$44,050,000	\$20,400,000	\$23,150,000	\$11,150,000	\$8,400,000	\$1,700,000
Total	\$1,132,600,000	\$533,744,000	\$586,743,800	\$1,057,714,600	\$461,566,500	\$209,075,000	\$130,710,000

2024 Capital Improvement Program Narratives

MSP END OF LIFE/REPLACEMENT PROJECTS

End of Life/Replacement projects include systems, components, and pavements that can no longer be economically or feasibly maintained and must be replaced.

10 – Terminal 1

Cooling Unit Replacement \$1,125,000

This project will replace the remaining once through cooling units across Terminal 1. There are twelve units included for replacement with either a chilled water unit or a DX unit depending on the area it serves. The new units will connect to IMACS for monitoring and control.

Passenger Boarding Bridge Replacements \$4,000,000

This program replaces 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.

13 – Energy Management Center

Concourse E and F Bridge Heating and Cooling System Replacement \$2,200,000

This is the second of three phases of work to replace and improve the heating and cooling systems on the bridges to Concourses E and F. In this phase, the original chilled water piping will be replaced and located in an accessible soffit. A redundant cooling loop will be added as well to minimize impacts to the concourses during disruptions and construction relocations.

GTC Dual-temperature Pump Improvements \$2,300,000

This project will replace end of life pumps and supporting infrastructure.

Variable Air Volume (VAV) Box Replacement \$1,900,000

This program will replace Variable Air Volume (VAV) boxes throughout Terminal 1 with more efficient equipment connected to the IMACS system and located for maintenance accessibility.

21 – Field and Runway

Airfield Snow Melter Replacement/Upgrades \$1,800,000

This project will replace, modify and/or upgrade snow melters on the airfield that are beyond their useful life.

Bituminous Shoulder Reconstruction \$1,000,000

This project will reconstruct full depth bituminous shoulders along Runway 12L-30R from Taxiway P10 to Taxiway M and from Taxiway P3 to Taxiway P1. This work will restore transverse grades to shoulders to improve drainage and meet FAA standards. Work will include removals, crushed aggregate base, bituminous pavement, pavement marking, and electrical construction.

Concourse G Apron Pavement Reconstruction **\$11,600,000**

This project will reconstruct a portion of the apron area adjacent to Concourse G. Work will include removals, excavation, granular material, crushed aggregate base, concrete pavement, fuel pits, and pavement marking.

Taxiway B Pavement Reconstruction **\$2,400,000**

This project will reconstruct a portion of Taxiway B. Work will include removals, excavation, granular material, crushed aggregate base, concrete pavement, bituminous shoulders, pavement marking, and taxiway centerline lights.

26 – Terminal Roads/Landside

UPS Loop Pavement Reconstruction **\$2,000,000**

This project will reconstruct 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 will replace approximately 26 variable message signs across the MSP campus and install five new signs to assist with parking diversions.

31 – Parking

Parking Ramp Snow Melter Replacement/Upgrades **\$1,350,000**

This program provides for the evaluation, maintenance, miscellaneous modifications, and replacement of existing snow melters in parking ramps located on the MSP campus.

36– Terminal 2

Terminal 2 Recarpeting Program **\$1,300,000**

This multi-year program will replace end of life carpeting throughout Terminal 2.

39– Public Areas/Roads

East 70th Street Reconstruction **\$2,400,000**

This project reconstructs East 70th Street due to deteriorating pavement which requires annual maintenance repairs including existing manholes that are settling.

56– Trades/Maintenance Buildings

MSP Liquid Deicer Storage Facility **\$11,200,000**

This project includes construction of a new airfield runway deicer storage and off-loading facility with additional offload ports, upload ports, and increased liquid capacity for airfield runway deicing chemicals.

MSP IT PROJECTS

MSP IT Projects include those that have a significant amount, if not all, technology-related enhancements, maintenance, or restructuring.

10 – Terminal 1

Concourse C and D Digital Directory Replacement **\$200,000**

The six digital displays on Concourses C and G will be replaced to provide a consistent customer experience similar to the displays in the Terminal 1 mall.

MAC Technology Upgrades **\$10,000,000**

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 2023.

Telecom Room Equipment Continuity (TREC) **\$1,510,000**

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.

63 – Police

Card Access Modifications **\$2,500,000**

This is a multi-year program to refresh the inventory of card access security readers as they get to end of life, add outdoor biometric readers, add mobile card readers, add other readers as needed throughout the campus, and align card access control with other surveillance technology including IVISN.

Public Safety Land Mobile Radio System Solutions **\$500,000**

MAC public safety, along with additional MAC departments, operates on the statewide 800 MHz Allied Radio Matrix for Emergency Response (ARMER) system. All MAC departments with radio equipment that operates on the ARMER system have access to regional and statewide talk groups which support the ability to communicate during large-scale incidents where interoperability is crucial. As the MAC continues to flourish and grow there is a continuous need to both identify and correct radio frequency and LTE coverage deficiencies to ensure seamless communications during critical situations.

MSP LONG TERM COMPREHENSIVE PLAN PROJECTS

MSP Long Term Comp Plan projects include projects that enhance or expand the airport facilities in order to meet existing or forecasted passenger needs.

10 – Terminal 1

2023 Baggage Claim / Ticket Lobby Operational Improvements \$25,000,000

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 origin 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.

2023 Concourse G Infill – Pod 2-3 \$320,000,000

This project includes an expansion/redevelopment of Concourse G. The expansion includes an infill between the existing Pods 2 and 3, which will provide enlarged gate hold areas. The redevelopment will include new and upgraded restrooms, new moving walkways, new mechanical rooms and air handling equipment, redevelopment of concessions space and miscellaneous relocations of tenant space within the project footprint.

36 – Terminal 2

Long Term Plan Projects (fees) \$1,000,000

This budget will fund preliminary studies of a South expansion of Terminal 2 and its associated projects and phasing.

Terminal 2 North Gate Expansion \$237,000,000

This project will expand Terminal 2 to the north, adding passenger boarding bridges, gate hold seating, concessions, and support spaces.

MSP MAINTENANCE/FACILITY UPGRADE PROJECTS

MSP Maintenance/Facility Upgrade projects include those that provide improvements to individual buildings or systems across the campus on a one-time or short-term basis.

10 – Terminal 1

ADO Office Expansion \$4,000,000

Additional office and meeting space is needed for the Airport Director's Office, suite 3000, to function properly. This expansion and remodel will support increasing MAC staffing numbers and changes in workspace needs.

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 **\$1,260,000**
This program supports procurement of commissioned art and rotating exhibits as part of the Percent for Arts program.

Concourse A Heating System Upgrade **\$11,000,000**
This project will replace the entire heating water system on Concourse A. The new system will include air handling unit fans, heat exchangers, pumps, piping, VAV boxes, FTR, and solar photovoltaic panels. All new equipment will have updated controls that connects into IMACS.

Delivery Node Redevelopment **\$2,300,000**
MAC's existing node delivery and storage system requires long-term improvements at Terminal 2 and Terminal 1 (Concourses A, C, E, F, and G) to provide for safe and efficient delivery, by the logistics company, to MAC and airport tenants. This program will improve or replace existing nodes with more centralized locations that should include loading docks, elevators where needed, adjacent storage, trash and recycling, etc. The 2024 project is planned to improve the delivery node at Concourse E.

Lavatory Buildings Rehabilitation **\$4,400,000**
This project will address on-going maintenance issues and aging components of the lavatory buildings at Terminal 1. This project will include a verification and assessment of the structure and roof and make repairs as need. The project will also provide, where needed, new vapor proof LED lighting, IVISN cameras, personnel doors, concrete floor waterproofing, and new tricherators. The project will also provide an exterior connection or removal of the Delta glycol tank located inside the G lavatory building. This project will replace the Terminal 1 lavatory building coiling garage doors at G1 and D1 with new high traffic breakaway rubber doors. These doors are designed to break away upon impact which will greatly reduce the long-term repair and replacement costs associated with the existing overhead coiling doors.

Lighting Infrastructure Technology and Equipment (LITE) **\$1,500,000**
This is a multi-year program that will analyze, assemble, and organize lighting system upgrade recommendations for the MSP campus. Annual investment in lighting infrastructure is necessary to ensure its safe operation, reduce energy and maintenance costs, and to implement technology upgrades to improve lighting quality. Light fixtures age and degrade due to time, heat or exterior elements. Lighting technologies upgrades will also provide for more energy efficient lighting systems.

Restroom Upgrade Program **\$2,295,000**
A study of all restrooms in Terminal 1 was completed in 2010 and a program developed to upgrade/modernize the restrooms at Terminal 1. From this study, each restroom was prioritized based on its condition. This program will provide for the phased modernization of the Terminal 1 restrooms to include upgraded finishes, lighting, air quality, energy saving upgrades, and ADA compliance.

Steam System Upgrade Program **\$1,600,000**
This program will replace steam pressure reducing stations that are near or past the end of their useful life. The program will also replace heat exchangers in two mechanical rooms and replace valves in the boiler fuel system piping.

Terminal 1 Curbside Canopy Repairs and Lighting Upgrades **\$350,000**

This project will make improvements to the aging infrastructure on the East and West curbside canopies at Terminal 1, including new LED fixtures on the west canopy, snow dam systems, repairing gutters on the east and west canopies, and paint as needed.

Terminal 1 Tug Drive Heater Replacement **\$2,000,000**

This project will replace all existing Terminal 1 tug drive steam unit heaters with hot water unit heaters.

Terminal 1 Tug Drive Waterproofing **\$2,900,000**

The Terminal 1 tug drive was last sealed and waterproofed in 2007-2010. Concrete waterproofing typically has a 10-year lifespan and needs to be redone in order to minimize water infiltration into the structure and lower level spaces. This project would waterproof the concrete for the entire tug drive area located above basement level spaces.

Terminal 1 Tram Maintenance **\$1,000,000**

The project will provide replacement parts and maintenance for the concourse and hub tram systems to extend their useful life.

Way-Finding Sign Replacement **\$1,000,000**

Wayfinding is a critical customer service piece of our passenger's experience at MSP. Existing wayfinding signs are outdated, provide information no longer relevant, or are no longer illuminated. This program replaces the failed cold-cathode illumination with LED backlit signs as it is not practical or cost effective to repair them. This program updates sign information, locations, and provides new illuminated signs and/or digital signs where needed at Terminal 1 and Terminal 2 and supports repair that exceeds routine maintenance budgets. The 2024 phase will also support improvements to the Tram wayfinding.

12 – Federal inspection Station (FIS)

FIS Facility Upgrades **\$2,175,000**

The FIS Facility Upgrades project is a multi-year project to bring the FIS facilities in Terminal 1 and Terminal 2 up to the ATDS standards and other required improvements as prescribed by CBP.

13 – Energy Management Center

Chiller Plant Optimization **\$4,000,000**

This project installs new sensors throughout the chilled water system, installs variable frequency drives for pumps, and removes pumps in the system that are no longer necessary. Additionally, this project installs a new program on the MAC network, connected to IMACS, to operate the chiller plant at terminal 1. This program trends data within the system and proactively modifies its operations to run in the most efficient manner, while maintaining the cooling capacity to the terminal.

MAC Automation Infrastructure Program **\$5,300,000**

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.

21 – Field and Runway

Anti-Climb Fencing and Lighting \$1,000,000

Fencing, CCTV cameras, and lighting will be added in the northeast area of the MSP campus.

Apron Lighting LED Upgrade \$5,000,000

This project will replace the older apron lighting units with more efficient LED fixtures.

Runway 12L Deice Pad Reconfiguration \$700,000

This project will reconfigure the Runway 12L Deice pad to allow the deicing of aircraft safely and more efficiently. The work scope includes the remarking of the deice pad slots and the relocation of the centerline lighting.

Taxiways B and Q Islands \$800,000

This project will construct a taxiway island at the intersection of created Taxiways C and D and P and Q.

Tunnel Lighting LED Upgrade \$1,100,000

This program will replace existing high intensity discharge type lighting with LED to save energy and reduce maintenance.

36 – Terminal 2

Terminal 2 Lobby Passenger Flow Program \$1,000,000

This project will expand the passenger flow program to the Terminal 2 passenger lobby.

Terminal Door Locks and Emergency Egress Upgrades \$400,000

This project will add door locking hardware and associated life safety panic devices to the front of house doors located at Terminal 1 and Terminal 2. Additionally, the project will connect to the MAC SAACS or IMACS systems to allow for remote locking and unlocking of the door hardware.

39 – Public Areas/Roads

34th Avenue Bus Area Reconstruction \$800,000

This project will reconstruct the 34th Avenue Bus Area in concrete. The existing roadway is reaching the end of its useful life and has had periodic maintenance to patch areas. The project limits include a portion of 34th Avenue from the MnDOT right-of-way to the bus loop entrance and the bus loop. The project will include concrete pavement, lighting, electrical infrastructure, landscape and other improvements.

34th Avenue Traffic Control Improvements \$200,000

This project will support the City of Bloomington's upgrade to the signal-related items as part of the Metro Transit Blue Line enhancement project.

Tunnel Fan Replacement \$4,700,000

The existing fans in the 17/35 tunnel are past their useful life and the 4-22 tunnel fans are approaching the end of their useful life. This two-year project will replace these fans.

46 – Hangars and Other Buildings

MAC Storage Facility **\$34,000,000**

This project will construct a new building to provide storage and associated workspace to replace storage spread around the campus in buildings that can no longer provide adequate protection from the elements and pests.

Safety and Security Center **\$163,000,000**

This phase of the project will construct a building to house a new Integrated Operations Center which includes Airside Operations and the Emergency Communications Center, a dedicated primary Emergency Operations Center, and consolidated Airport Police Department facilities. 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

Emergency Communications Center Updates **\$150,000**

This project will provide updates in the PSAP (Public Safety Answering Point) operations area, common spaces, and individual offices to meet workspace needs.

70 – General Office/Administration

GO Workspace Improvements **\$250,000**

This project includes an office renovation of the GO south wing to add additional workspaces to accommodate new full-time employees.

76 – Environment

Firefighting Foam System Conversion **\$3,000,000**

This project will support converting firefighting foam from the AFFF mil-spec foam to F3 foam without intentionally added PFAS. This conversion includes multiple buildings, vehicle systems, project management, and firefighting equipment.

Glycol Sewer & Storm Sewer Inspection/Rehabilitation **\$1,700,000**

This project provides for cleaning and video inspection of gravity sewers, including deicing pads, plug and pump deicing areas, and conveyance sewer. This project also includes pressure testing of glycol forcemains.

Ground Service Equipment (GSE) Electrical Charging Stations **\$500,000**

This project will purchase and install charging stations for airline electric ground support equipment (GSE) at Terminal 2. These fast, energy-efficient charging stations allow for simultaneous charging, adjustable charging rates, and automatic shut-off when the GSE are fully charged.

Maintenance Campus Infiltration Pond **\$13,100,000**

This project will prepare the site and install an infiltration pond to address stormwater management for the Field Maintenance and Trades campus north of the airfield, in support of several future building projects.

Runway 12R-30L Glycol Forcemain Environmental Improvements **\$1,700,000**

This 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.

Photovoltaic System Improvements **\$3,100,000**

This project will address replacement of modules and inverters in the solar arrays on the Purple and Blue ramps in order to return these systems to anticipated power outputs.

MSP NOISE MITIGATION PROJECTS

Noise Mitigation Consent Decree Amendment **\$1,000,000**

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

MSP On-Going Maintenance projects include buildings, systems, pavements, and other infrastructure that require improvements on an annual basis in order to maintain the facilities and manage MAC assets.

10 – Terminal 1

Air Handling Unit Replacement **\$5,100,000**

There are existing air handling units serving Terminal 1 that were installed with the original terminal construction in 1958-60 and are over 50 years old. A study of these units has been completed that evaluated each unit's age, condition, and its ability to adequately heat or cool the spaces it serves. A multi-year program has been implemented to provide for the replacement of the units that have been identified as needing replacement. The project costs include modifications to building walls to facilitate the removal of existing equipment and installation of the new units, upgraded electrical and temperature controls, and asbestos abatement.

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 **\$10,000,000**

The final phase of 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 **\$2,500,000**

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

Electrical Substation Replacement **\$10,000,000**

This is a multi-year program to replace electrical substations which are at or very near end of life. This program will also improve redundancy.

Emergency Power Upgrades **\$2,500,000**

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.

Ground Power Substation Replacement **\$9,000,000**

This program is focused on updating and improving substations that serve airside operations such as jet bridges, and providing heating, cooling, and power for parked aircraft. These substations also provide power for charging electric ground service vehicles. This program will position MSP to be able to meet new demands for ground equipment, including an increase in electric vehicle charging.

Plumbing Infrastructure Upgrades **\$700,000**

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.

Terminal Building Remediation Program **\$3,000,000**

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 **\$2,600,000**

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 2024.

13 – Energy Management Center

EMC Life Safety Infrastructure Program \$1,900,000

This program will replace life safety equipment and devices associated with the heating, ventilation, and air conditioning system throughout MSP campus. Equipment includes gas detection sensors and life safety dampers. Additionally, all new equipment and devices will connect to IMACS for monitoring and control.

EMC Plant Upgrades (T1 & T2) \$2,100,000

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 Electrical Construction \$2,500,000

This program provides for the removal and replacement of airfield lighting and signage with LED technology, and lighting control upgrades.

Airside Roadway Pavement Restoration \$1,200,000

This is an ongoing program to rehabilitate roadways on the airfield 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 areas most in need of repair on an annual basis.

Miscellaneous Airfield Construction \$3,500,000

This program supports Part 139 Airport Certification through grading and drainage improvements within runway safety areas, airfield pavement marking modifications, and other miscellaneous airside projects that are too small to accomplish independently or arise unexpectedly.

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 Inspections **\$120,000**

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.

31 – Parking

Parking Structure Rehabilitation **\$5,500,000**

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.

Terminal 2 Parking Facility Watermain Improvements **\$670,000**

This project will provide for the replacement of three watermain valves that serve the snow-melter system in the Purple Parking Ramp and to provide for lowering and repair of a watermain segment at the northeast corner of the Orange Parking Ramp that is prone to freezing.

39 – Public Areas/Roads

Concrete Joint Repair **\$1,000,000**

This project will complete landside pavement joint repair on MSP campus roadways as a preventative maintenance activity to prolong the existing pavement from reconstruction.

Landside Pavement Rehabilitation **\$500,000**

This is an ongoing program of preventative maintenance activities such as crack sealing, surface treatments, and resurfacing on roadways located outside of the Air Operations Area (AOA). This program effectively slows deterioration rates, extends service life and delays need for total reconstruction of bituminous and concrete pavements. Inspection of pavements and appurtenances determines what areas are to be prioritized for rehabilitation under each year’s project.

Landside Utility Rehabilitation **\$750,000**

Each year there are numerous landside utility projects that are beyond the resources of MAC’s staff and operating budget to accomplish. These projects are prioritized annually and completed with either a series of contracts or purchase orders. Electric power, sanitary sewer, storm sewer and watermain improvements will be addressed with this program. Also, a study will be conducted as part of the first year’s project to identify future potential projects. The study will be updated annually reflect current priorities.

Roadway Fixture Refurbishment **\$150,000**

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

46 – Hangars and Other Buildings

Campus Building Rehab Program **\$1,500,000**

Continual maintenance of MAC non-terminal buildings is imperative in providing a stable infrastructure and meeting the MAC's sustainability goals. Age and weather contribute to building deterioration, mold and other health issues. Building envelope issues include curtain wall systems, glazing, sealant repair/replacement, louver repair/replacement, metal panel replacement and/or painting/tuck-pointing, structural repair and insulation systems. This program will also include repair/replacement related to interior issues. This is part of an on-going program to maintain MAC buildings as assets.

Campus Parking Lot Reconstruction **\$3,075,000**

This is an ongoing program of preventative maintenance activities such as crack sealing, surface treatments and resurfacing of parking lots. This program effectively slows, deterioration rates, extends service life and delays need for total reconstruction of parking lot pavements is required. Inspection of pavements and appurtenances determines what areas are to be prioritized for rehabilitation under each year's project. The 2024 project is planned to reconstruct the pavement around the MAC Field Maintenance facility.

MSP Campus Building Roof Replacement **\$6,100,000**

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.

56 – Trades/Maintenance Buildings

Sump Pump Controls **\$4,000,000**

This project will rehabilitate sump pumps older than five years across the campus and provide a new automation system at each location. Additionally, each sump pump will connect to IMACS for remote monitoring and control. This will help MAC Plumbing understand when there is a problem by receiving an alarm within their plumbing shop.

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.

MSP TENANT PROJECTS

MSP Tenant projects include those that enhance or expand tenant or leasehold facilities that MAC supports, with the tenants reimbursing the costs to MAC for work within leasehold spaces.

10-Terminal 1

Concessions Upgrades/Revenue Development and Strategic Partnerships \$220,000

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. The budget will also provide leasehold improvements to the strategic partnerships activation sites in order to prepare space for the partners' construction.

Concourse and Gatehold Modernization \$85,600,000

This is the second phase of the Concourse and Gatehold Modernization program and will complete work in Concourse C. Through a reimbursable agreement, Delta Air Lines will complete MAC-funded work including ceiling and lighting improvements, window tint, wainscoting, column wraps (excluding branding), paint (excluding branding), wayfinding information displays ("WIDS"), and flooring in the public area concourse corridors (including terrazzo, tile, and carpet where applicable). The program budget will also support MAC consultant fees for design collaboration and project oversight.

Terminal 1 Pre-conditioned Air (PCA) \$2,500,000

This program will provide and/or replace PCA units serving passenger boarding bridges to eliminate the use of idling airplane engines to heat and cool the ambient air. This program will reduce emissions on the campus.

36-Terminal 2

Terminal 2 Concessions Redevelopment \$2,000,000

This project will support concessions spaces at the central portion of Terminal 2 and be coordinated with lease rebidding.

Terminal 2 Multipurpose Facility (study) \$300,000

This project will study the development of a multipurpose facility that would include a day care facility to be used by airport employees with children and contractor meeting space, with a goal to remove the temporary structures adjacent to the T2 parking structure.

RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS

Reliever Airport Long Term Comp Plan projects include projects that enhance or expand the airport facilities in order to meet existing or forecasted operational needs.

81 – St. Paul

STP Airport Layout Plan \$500,000

The new ALP will show current conditions and any development proposed in the Long-Term Comprehensive Plan (LTCP). A portion of the budget will be used to acquire new AGIS base mapping to create a new Airport Layout Plan (ALP) set that complies with current FAA guidelines and criteria.

STP Long Term Comprehensive Plan \$800,000

This project will review current airport facilities, identify service gaps, and better facilitate the safe movement of aircraft at St. Paul Downtown Airport, which is part of the MAC's system of reliever airports designated by the FAA to reduce congestion at the Minneapolis-St. Paul International Airport and to provide improved general aviation facilities in the overall community.

84 – Flying Cloud

FCM Purchase and Demolition of Hangars \$1,300,000

This will purchase and demo all or portions of five hangars within the object free area of Flying Cloud's Taxiway Alpha.

85 – Crystal

MIC Airport Layout Plan \$100,000

An as-built ALP will be completed to reflect the closure of Runway 14R-32L and the extension of existing Runway 14-32.

RELIEVER AIRPORTS MAINTENANCE/FACILITY UPGRADE PROJECTS

Reliever Airport Maintenance / Facility Upgrade projects include improvements to buildings, systems, pavements and other infrastructure across the Reliever Airport system on a one-time or short-term basis.

80 – Reliever Airports

Relievers Security Fencing, Gates, and Lighting \$200,000

This program will address ongoing needs for repairs and modifications to the Reliever Airports' perimeter chain link fencing, gate vehicle access points, and lighting to enhance safety and security in landside areas.

Relievers 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 2024.

Relievers 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 2024.

81 – St. Paul

STP Customs and Border Protection General Aviation Facility \$4,500,000

This project will construct a new CBP facility to ensure the longevity of these services as Holman Field.

STP Intelligent Monitoring and Control System (IMACS) Expansion \$2,250,000

This project will expand the IMACS network to all Facilities and Trades equipment to allow monitoring and control.

STP LED Edge Lighting Upgrades \$1,500,000

This project will replace taxiway edge lighting and signage with LED lighting.

STP Runway 14-32 Crack Sealing **\$250,000**

This project will repair cracks on to prolong usability until a pavement rehabilitation is completed.

STP Storm Sewer Improvements **\$1,500,000**

This project includes improvements to the existing storm sewer systems in the West Building Area and infield area between Taxiways Delta and Lima, to improve storm water removal and to address soil and pavement distress in the vicinity of deficient storm sewer structures. The project will also evaluate the potential for improvements to the flood pump stations to maximize efficient removal of storm water from the airfield during flood events.

82 – Lake Elmo

21D Materials Storage Building **\$500,000**

This project includes the construction of a MAC storage building for the containment of airfield maintenance products such as salt, sand, and topsoil to comply with MPCA requirements.

21D North Building Area Pavement Rehabilitation **\$900,000**

This is an ongoing program to rehabilitate aircraft operational areas (runways, taxiways, aprons, taxilanes) through bituminous overlays, seal coats, or in some instances, reconstruction. The project will restore the surface to a smooth, even condition and improve overall operating conditions. The pavement condition index report, an inspection of the pavement, and geotechnical exploration will be completed to determine the extent of the repairs. This project includes the taxilanes and airport entrance road in the northwest building area.

21D Runway 04-22 Pavement Rehabilitation **\$4,000,000**

This project includes reconstruction of the full length of existing Runway 4-22. The updated long term comprehensive plan for this airport proposes an extension to the crosswind runway at the end of Runway 22. Construction of the extension is included in this project. Installation of runway edge lighting is also included.

83 – Airlake

LVN Maintenance Building Renovation **\$1,250,000**

This project will remove and replace the office portion of the maintenance building at LVN while leaving the maintenance garage in place.

84 – Flying Cloud

FCM Access Roads and Tango Lane **\$600,000**

This project includes pavement rehabilitation of Airport Access Roads and Tango Lane in the north building area of the airport. Work may consist of milling, pavement repairs, bituminous pavement, pavement marking and miscellaneous items.

FCM Executive Aviation/MAC Maintenance Apron **\$700,000**

This will provide a mill and overlay of the MAC owned apron near the Executive Aviation facility. This project will also include pavement marking.

FCM Intelligent Monitoring and Control System (IMACS) **\$2,250,000**

This project will extend the IMACS network to Flying Cloud Airport where there is no connectivity at present. This system will allow remote monitoring and control of mechanical, electrical, and plumbing systems as well as facilities monitoring, IT monitoring, and data analysis.

FCM Runway 10R-28L Crack Sealing \$200,000

This project will repair cracks to prolong usability until pavement rehabilitation is completed in a future year.

FCM Spring Lane Extension and Taxilane Connector \$600,000

This project will extend Spring Lane Taxilane to the east and provide a connector to Taxiway B. The project is operationally necessary for the development of a site near the south building area.

FCM Underground Fuel Storage Tank Replacement \$500,000

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

85 – Crystal

MIC Underground Fuel Storage Tank Replacement \$500,000

This project will replace aging UST's that are owned and maintained by the MAC at the reliever airports. The tanks were installed in 1991 and have a life expectancy of 25-30 years.

86 – Anoka County - Blaine

ANE Airport Rd and GA Blvd Pavement Rehabilitation \$700,000

This project will restore the service roads on the west side of the airport, including Airport Road and General Aviation Blvd. The pavement has reached the end of its useful life and is in need of rehabilitation. Due to the overall length of the road, the project will be completed in three phases.

ANE Equipment Storage and Maintenance Building \$1,200,000

This project will construct a new equipment storage and maintenance building for the Anoka County-Blaine airport to replace airport staff's use of a leasable hangar to support this function.

ANE Underground Fuel Storage Tank Replacement \$500,000

This project will replace aging UST's that are owned and maintained by the MAC at the reliever airports. The tanks were installed in 1991 and have a life expectancy of 25-30 years.

ANE West Perimeter Road \$1,800,000

This project will construct a road to connect the south and north sides of the airport in a safe and efficient manner on the west side of the airport in response to concerns raised during Runway Safety Action Team (RSAT) reviews.



Metropolitan Airports Commission

TO: Planning, Development and Environment Committee

FROM: Bridget M. Rief, Vice President – Planning and Development (612-725-8371)

SUBJECT: **Preliminary 2024 – 2030 Capital Improvement Program
Assessment of Environmental Effects (AOEE) and Request for Public Hearing**

DATE: August 30, 2023

FOR ACTION

Summary

Each year, MAC staff prepares a seven-year Capital Improvement Program (CIP) for review and approval by the full Commission. A preliminary version of the 2024-2030 CIP listing is provided in September in order to give Commissioners, Affected Municipalities, agencies like the Minnesota Department of Transportation and the Minnesota Pollution Control Agency, and the public, an opportunity to see what is planned for the upcoming seven-year program, with specifics included for the proposed projects forthcoming for construction contract award in 2024. The process also requires a public hearing.

The Commission must prepare an Assessment of Environmental Effects (AOEE) document each year which evaluates the cumulative environmental effects of its Capital Improvement Program (CIP) at each of the seven airports.

Fiscal Impact

No Impact Operating Budget CIP Other

Preparation of the AOEE document will be completed by in-house MAC staff. There may, however, be minor consulting fees needed for the environmental review and ad publications which would be funded out of the Planning and Development operating budget.

Action Requested

Recommend to the full Commission that:

1. **The Planning, Development and Environment Committee be designated as hearing officers for the AOEE public hearing to be held at the November 6, 2023 Planning, Development and Environment Committee meeting;**

2. **Staff be granted the authority to publish a Draft AOEE for the 2024-2030 CIP for public review and comment; and,**
3. **Authorize staff to proceed with these processes.**

Background

Minnesota Statutes Chapter 473, revised in 1988, requires that the Commission prepare an Assessment of Environmental Effects (AOEE) which evaluates the cumulative environmental effects of its Capital Improvement Program (CIP) at each of the seven airports. In addition, Environmental Assessment Worksheets (EAWs) must be prepared for individual projects in the program that meet certain criteria. Where state and/or federal environmental assessments or impact statements have been prepared, that information is acknowledged in the cumulative assessment. The law provides for public review of the assessments in accordance with the rules of the Environmental Quality Board (EQB). The EQB rules set forth mandatory review timelines, including a public comment period, holding a public hearing, and decision milestones that must be coordinated with Commission and Committee meetings of the MAC.

Applicable Legal Authority

- (a) Minnesota Statutes Chapter 473, revised in 1988, requires that the Commission prepare an Assessment of Environmental Effects (AOEE).

Analysis

Staff is asking the Planning, Development and Environment (PD&E) Committee be designated as the AOEE Hearing Officers, and that the Commission grant the authority to publish a Draft AOEE document for the 2024-2030 CIP for public review and comment.

The AOEE document is anticipated to be published for review and comment in early October 2023 with the 30-day comment period extending into November 2023. As requested in the action, the public hearing is planned for November 6, 2023 as part of the regular PD&E Committee meeting agenda.

As noted earlier in this memo, approval of the September Preliminary CIP also begins the 60-day review period for Affected Municipalities. Notices and minutes for each Committee and Commission meeting that has the 2024-2030 CIP as an agenda item get sent out to the Affected Municipalities list.

Agencies, municipalities and the public are welcome to submit written comments or attend the public hearing to state verbal comments on either the projects included in the overall 2024-2030 Preliminary CIP or the corresponding AOEE document.



2024–2030
Capital Improvement Program
Assessment of Environmental Effects
(AOEE)

Date: Published October 17, 2023

Metropolitan Airports Commission



Minneapolis – Saint Paul International Airport
Airlake · Anoka County-Blaine · Crystal · Flying Cloud · Lake Elmo · St. Paul Downtown

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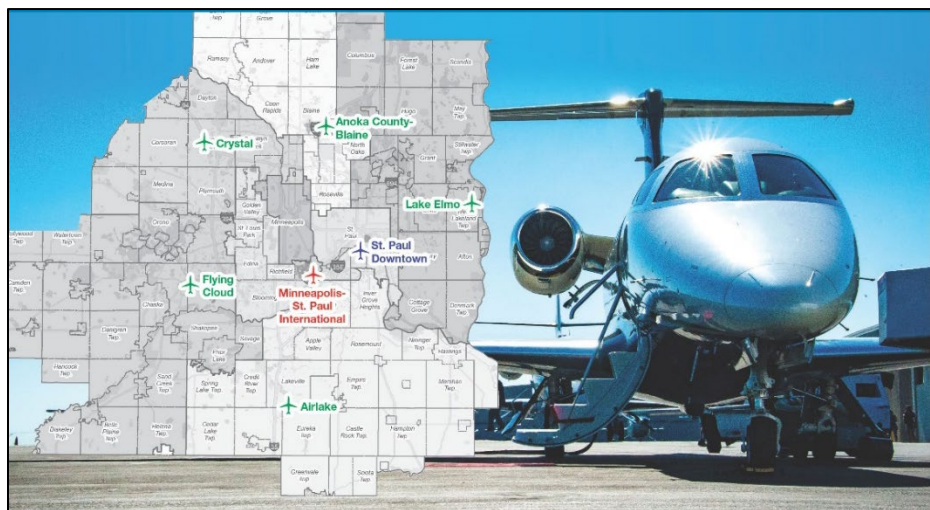
1.0 INTRODUCTION

The Minnesota Legislature created the Metropolitan Airports Commission (MAC) in 1943 to promote the efficient, safe handling of air commerce and to develop the full potential of the Minneapolis-Saint Paul metropolitan area as an aviation center. 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. As a public corporation of the state, the MAC generates the revenues it needs to operate through rents and user fees, not general tax appropriations. Bonding and financial authority – along with MAC generated cash and state and federal aviation grants and fees – fund capital investments in the MAC’s seven airport system.

The organization is governed by a 15-member board. The MAC board establishes policies and ordinances and provides financial oversight, including approval of budgets and large expenditures.

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. The year 2022 will be remembered as the year travelers returned to the air, with more than 31.2 million individuals passing through MSP – a 24% increase over 2021. At the year’s end, MSP had 193 active routes, including 13 new routes from Sun Country, Delta, Allegiant, and Air Canada.

Strategic investments in our general aviation airport system supported healthy operations and increased private development to serve our regional flying community. Over the past five years, the MAC has invested more than \$50 million to provide a safe, efficient and modern general aviation airport system, including last year’s opening of a new, realigned and extended runway at the Lake Elmo Airport. The investments are paying off, spurring more private investments in infrastructure and services at the six Reliever Airports. Tenants constructed 12 hangars across the reliever airport system in 2022, including a 10,000 square foot new facility at Lake Elmo and a 25,000 square foot corporate airport facility at the Airlake Airport. While overall operations fell by 3% reliever system-wide over 2021, three of the six airports experienced an increase in operations in 2022, supported in part by a continued rebound in corporate general aviation activity. The airports’ flying schools, charter operators, maintenance companies, fixed-base operators and avionics firms also report being busier than ever.



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 18, 2023, the MAC Commission adopted the Preliminary 2024–2030 CIP (shown in Appendix A). This AOEE report is prepared in accordance with the requirements of Minnesota Statutes 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 2024 to 2030 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 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 (2024 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 an 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 state Environmental Impact Statement (EIS) has been prepared for all projects scheduled to be implemented in 2024 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 (2024–2030). 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 (2024) of the preliminary CIP. Appendix C includes a draft description for projects in years 2025 through 2030 that meet the above three conditions in Minnesota Statutes Section 473.614 for a mandatory EAW.

MSP Terminal 2 and Delta Air Lines Office Complex



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.

In 2022, the MAC marked the 60th anniversary of the MSP’s Terminal 1. The original building, with its open plan, long span concrete shell and signature folded (“wavy”) roof, was heralded in 1962 as a landmark event that would modernize the travel experience. Originally designed to accommodate 1.8 million passengers annually, Terminal 1 has undergone numerous renovations and additions over the past six decades. The building has grown by more than 2.4 million square feet and now hosts tens of millions of passengers each year.



MSP New Silver Ramp with Access to Public Parking, Rental Cars and the Multi-Modal Transit Hub (shuttle, bus, LRT, bike, and walkway to hotel)

2.1 MSP LONG-TERM PLAN STATUS

The planning process for the 2020-2040 Long Term Plan (LTP) for MSP 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 is gaining a fresh perspective on airfield performance.

The planning process evaluates 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.

MAC published the draft 2040 LTP in June 2023, and anticipates finalizing the process in early 2024. The MAC website: <https://www.msppairport.com/long-term-plan> contains the latest information related to the LTP process.

2.2 MSP ENVIRONMENTAL STUDIES

Under 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.

Many projects that were included in the MSP 2020 Improvements EA/EAW review are now complete; some are programmed to begin construction in a year or two. These projects are noted in Table 2-1 on page 7, along with other projects listed in the 2024-2030 Preliminary CIP that meet the criteria for the preparation of an EAW.

Once the updated 2040 LTP is complete, MAC expects more projects that fulfill needs outlined in the LTP will make their way into the CIP. At this point, without an approved 2040 LTP, it is premature to include new expansion related projects in the CIP. Further, if any of those new expansion related projects require environmental review, MAC will complete those studies prior to their construction start.

2.3 MSP PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

Of all the projects listed for the year 2024 at MSP, there are three listed in the Preliminary 2024-2030 CIP that meet the criteria in Minnesota Statutes Section 473.614 for the preparation of a mandatory EAW: the next phase of the Baggage Claim/Ticket Lobby Operational Improvements, the Concourse G Infill – Pod 2-3 project, and the Terminal 2 North Gate Expansion. These projects are scheduled for

construction start in 2024, exceed \$5 million, and involve a new or expanded structure for handling passengers, cargo, vehicles, or aircraft. See Table 2-1.

Baggage Claim/Ticket Lobby Operational Improvements

The Terminal 1 Operational Improvements program, which began in 2016, will wrap up with the 2024 phase, which includes ticket counter and baggage belt modifications in the east curbside building, replacement of skylights, plus a litany of other minor changes to lighting, signage, monitoring, doors, etc.

Concourse G Infill – Pod 2-3

The Concourse G Infill Pods 2-3 project, which began in 2023 with utilities and foundations work, will improve utilization of Terminal 1 gates between G8 and G13 to enhance the customer experience, provide potential extension of federal traveler inspection spaces, and match new design and amenities that were recently incorporated into completed improvements between gates G17-G22.

The project includes a modest expansion of the central corridor and seating areas for five existing gates by expanding the concourse footprint between two existing gate pods that extend out from the G Concourse. This redevelopment will include restroom upgrades, new moving walkways, new concession spaces, new lighting and flooring, as well as upgrades to various building systems.

Terminal 2 North Gate Expansion

This project will expand Terminal 2 to the north, adding passenger boarding bridges, gate hold seating, concessions, and support spaces. The project includes relocation of the existing loading dock facilities as well as an expansion of the power and conduit feeds to provide enhanced redundant electrical services to the terminal. This project is aiming for LEED Gold certification, with solar-ready roof structures, green roof installations, geothermal systems, and mass timber ceiling construction.



MSP T2 North Gate Expansion Rendering

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

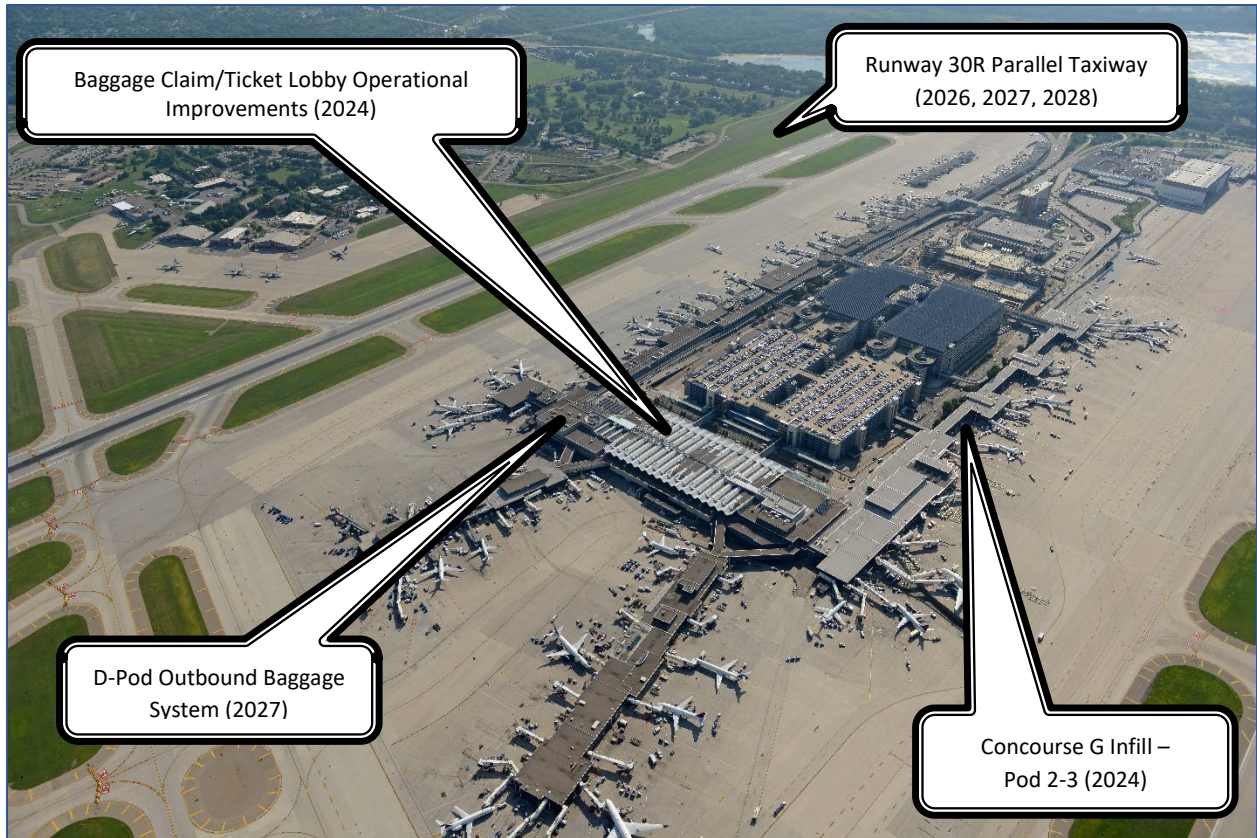
Project	CIP Year Proposed	EAW Status
T1 Baggage Claim/Ticket Lobby Operational Improvements	2024	Included in MSP 2020 Improvements EA/EAW
Concourse G Infill – Pod 2-3 Phase 2	2024	EAW Completed November 2022
Terminal 2 North Gate Expansion	2024	Included in MSP 2020 Improvements EA/EAW
Runway 30R Parallel Taxiway	2026	EAW Required
T1 D-Pod Outbound Baggage System	2027	Included in MSP 2020 Improvements EA/EAW
Runway 30R Parallel Taxiway	2027	EAW Required
Runway 30R Parallel Taxiway	2028	EAW Required

As noted in Table 2-1, three MSP projects/programs in the 2024-2030 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 Infill – Pod 2-3 project. MAC completed an EAW for the G Infill project in November 2022.

One other exception is the proposed Runway 30R Parallel Taxiway. MAC is still determining the feasibility of this project; however, if it does proceed, an EAW will be necessary as it would involve the construction of a new taxiway and will exceed the EAW criteria dollar amount. This project is proposed to be constructed in phases, but only one EAW would be prepared for the entire scope of the project.



Location for Terminal 2 Project listed in Table 2-1



Locations for Terminal 1 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, security enhancements, information technology (IT) upgrades, residential 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.

In addition to the general projects outlined above, the preliminary CIP shows a 2025 project that entails the installation of a Ground Based Augmentation System (GBAS). This type of system provides an alternative to the Instrument Landing System (ILS). Both systems assist pilots and aircraft when landing during inclement weather conditions. There are no changes to flight paths or approaches associated with this system augmentation, but simply an overlay of existing ILS approaches. Therefore, the project does not meet the criteria for preparation of a mandatory EAW under Minnesota Statutes Section 473.614.

Of additional note, a two-year end-of-life project is listed in the CIP in 2026 and 2027 for tram replacement at MSP. The scope for this project is not yet finalized. MAC will be reviewing alternatives that include replacing the existing tram systems with a similar type of tram system or replacements as

an autonomous or other type of vehicle option. Depending on the scope, the project may meet the criteria for a mandatory EAW. If the study reveals a preferred alternative that involves major modifications or different alignments for the tram systems, the need for environmental review would be determined at that time.

Although some of the MSP projects may have temporary impacts during construction, the MAC will use mitigation measures to minimize potential adverse effects such as noise, dust, and erosion. The environmental effects of construction are temporary, will be minimized using conventional 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.

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. In 2022, the STP Airport handled 41,592 operations, which equates to a 4.9% increase over 2021.

3.1 STP LONG-TERM COMPREHENSIVE PLAN STATUS

The last Long-Term Comprehensive Plan (LTCP) 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. While the anticipated timeline for kicking off the 2040 study has been postponed beyond 2023, MAC is currently planning to initiate the next update to the LTCP in 2024.



St. Paul Downtown Airport

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 2024-2030 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 2024-2030 CIP include on-going improvements to the MAC-owned terminal building, numerous pavement reconstruction projects, floodwall repairs, and storm sewer repairs. Edge lighting upgrades to LED and connections to MAC's monitoring and control (IMACS) system are planned. Larger projects in out years include a cold storage material building and improvements to equipment storage spaces. Also, MAC is planning to replace the aircraft Engineered Material Arresting System (EMAS) beds located at each end of Runway 14-32.

The Preliminary CIP also includes a Customs and Border Protection facility. The project includes a stand-alone office structure which would be a replacement facility for the operations currently taking place today in the terminal building. The new building will not significantly increase passenger processing capacity, and no EAW is required.

None of the proposed projects listed in the preliminary 2024-2030 CIP 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 conventional 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 fourth in MAC airports system for based aircraft. While this airport experiences the fewest operations of the MAC general aviation airports, it is still one of the top busiest airports in Minnesota. The airport is served by a fixed base operator and an aircraft maintenance provider. A short drive from the St. Paul business district and scenic destinations along the St. Croix River, Lake Elmo Airport is conveniently located for both business and leisure travelers. Lake Elmo Airport has two runways, one of them newly opened in 2022. Runway 14-32 is now 3,500 feet long, while Runway 4-22 measures 2,497 feet in length. There is no air traffic control tower.

The new 3,500-foot runway is part of a multi-year project that includes new instrument approach technology, lights, signage, and other safety improvements, including 650 additional feet of pavement to enhance operational capability. The airfield improvements at the Lake Elmo Airport represent a \$23.9 million investment in this vital public asset. Federal and state grants committed funds for nearly 75% of the project.

4.1 21D LONG-TERM COMPREHENSIVE PLAN STATUS

In September 2016, the MAC adopted the 2035 LTCP. Like previous plans, the LTCP objectives included 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.



An early evening view of the realigned Runway 14-32

4.2 21D ENVIRONMENTAL STUDIES

The projects outlined in the 2035 LTCP required environmental review. A 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 in October 2018.

4.3 21D PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

There is only one 21D project in the 2024-2030 Preliminary CIP meet the criteria defined in Minnesota Statutes Section 473.614 for preparation of an EAW. The reconstruction of the crosswind Runway 4-22 includes a modest runway extension, as outlined in the long-term plan and EA/EAW completed in 2018. The study evaluated a 254-foot extension to Runway 4-22, bringing it to a total 2,750-feet in length.

Table 4-1
Lake Elmo Projects in the CIP that Require a Mandatory EAW

Project	CIP Year Proposed	EAW Status
Runway 4-22 Reconstruction	2024	Included in the Runway Improvements EA/EAW

4.4 21D CUMULATIVE POTENTIAL ENVIRONMENTAL EFFECTS

Projects listed in the Preliminary CIP for Lake Elmo involve pavement replacement or rehabilitation, replacement of the Automated Weather Observing System (AWOS) antenna, construction of a cold materials storage building, and connection of lighting circuits to MAC's monitoring and control system. None of these meet all three criteria for preparation of a mandatory EAW under Minnesota Statutes Section 473.614.

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 conventional mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at Lake Elmo.

5.0 AIRLAKE AIRPORT (LVN)

Located just south of the Minneapolis-St. Paul metropolitan area near Lakeville, Farmington, and Eureka Township, the Airlake Airport mostly serves recreational fliers. The airport is also well-suited for business aviation, particularly for the many local businesses nearby.

The Airlake Airport has a single runway, at 4,098 feet long. Runway 12-30 has a full-length parallel taxiway on the north side as well as a partial parallel taxiway on the south. 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. In 2022, there were 38,268 operations, which is a 5.54% increase over 2021.

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 included 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.

To meet these goals, the Airlake 2035 LTCP proposed completion of the final phase of the south building area alleyways, access road and associated utilities, as well as an extension to Runway 12-30. Paving of associated taxilanes and the south airport entrance road is complete, along with installation of sanitary sewer and water mains, and new utility services to the south building area. Private tenants are constructing hangars in the new building area.



Airlake Airport

5.2 LVN ENVIRONMENTAL STUDIES

The proposed extension of Runway 12-30 as well as the planned pavement rehabilitation needed for the existing portion of the runway pavement are currently programmed for 2025. The MAC is actively working through the early stages of the required environmental review process, which is taking more time than anticipated. As a result, the projects associated with the review have moved in the CIP. The planned review process includes both a federal Environmental Assessment (EA) and a state Environmental Assessment Worksheet (EAW). Construction will not begin until all environmental review is completed.

5.3 LVN PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

The proposed runway project currently shown in 2025 is the only one that meets the criteria defined in Minnesota Statutes Section 473.614. See Table 5-1. As noted, that environmental review process is currently underway.

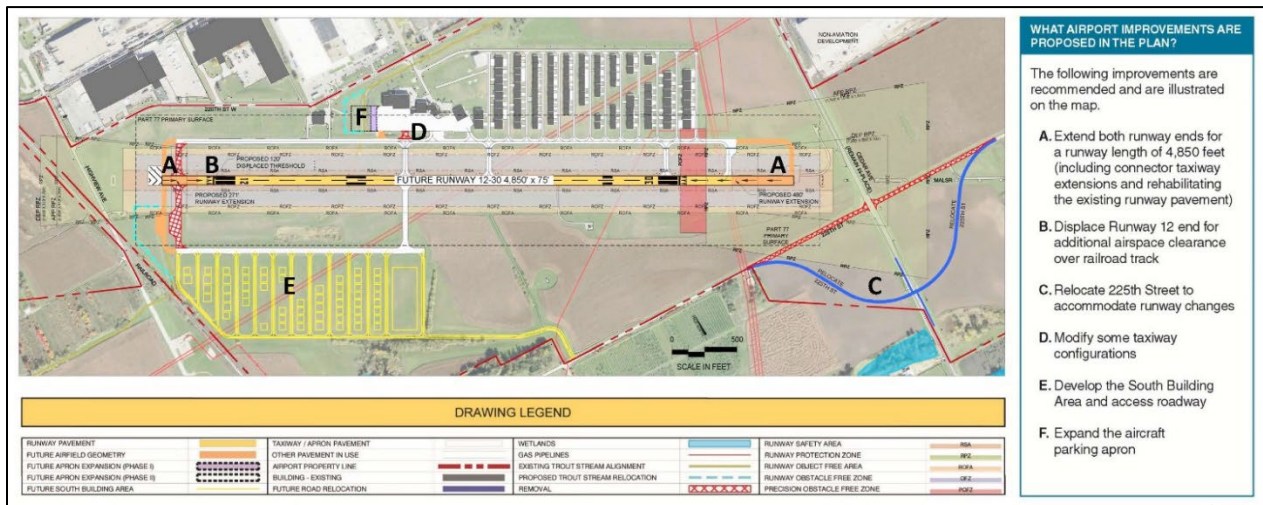
Table 5-1
Airlake Projects in the CIP that Require a Mandatory EAW

Project	CIP Year Proposed	EAW Status
Runway 12-30 Improvements	2025	EA/EAW in process

5.4 LVN CUMULATIVE POTENTIAL ENVIRONMENTAL EFFECTS

The only 2024 project at Airlake shown in the MAC 2024-2030 Preliminary CIP involves the renovation of an existing MAC-owned maintenance building. Projects in other years include primarily pavement reconstruction, airfield pavement edge lighting, replacement of the Automated Weather Observing System (AWOS), and connection of lighting to MAC’s monitoring and control system.

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 conventional 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 LTCP Preferred Alternative

6.0 FLYING CLOUD AIRPORT (FCM)

The Flying Cloud Airport has been a part of the MAC general aviation airport system for 75 years, during which the airport has matured into a bustling and thriving economic generator. Businesses appreciate both the proximity to the Twin Cities and the airport's infrastructure, which help them safely and efficiently run their businesses.

Flying Cloud is the busiest general aviation airport in the MAC reliever system. In 2022, the airport saw 122,281 operations, which is actually about a 7% decrease when compared to 2021.

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 that LTCP Update.

MAC is currently preparing a 2040 long-term plan for Flying Cloud. As a part of that process, MAC is holding numerous stakeholder engagement and public information meetings. The long-term plan update is scheduled for completion in 2024.



Flying Cloud Airport

6.2 FCM ENVIRONMENTAL STUDIES

The most recent environmental review for FCM was completed in the mid-2000's 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 2024-2030 Preliminary CIP at FCM meet the criteria defined in Minnesota Statutes Section 473.614.

6.4 FCM CUMULATIVE POTENTIAL ENVIRONMENTAL EFFECTS

In the 2024-2030 Preliminary CIP, the projects proposed at Flying Cloud do not include any major improvements. There are many projects specifically listed for 2024. Aside from pavement rehabilitation/reconstruction, the 2024 projects include underground storage tank replacement and connection of lighting to MAC's monitoring and control system. Another involves a short extension to a taxiway on the south side of the airfield, but it is anticipated this project will be moved out of 2024 to some future year in the final CIP.

One project of note involves the demolition of existing hangars in the north hangar area. There are five hangars that lie within the Taxiway A object free area. MAC has coordinated the demolition with the FAA and with the State Historic Preservation Office to ensure the hangars do not meet historic criteria.

The remaining projects in the CIP include primarily pavement reconstruction, as well as electrical vault modifications, security gate replacements, and new equipment for existing airfield lighting and utilities.

Although some of the projects in the outer years 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 conventional 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)

The Crystal Airport is located just northwest of the Minneapolis-St. Paul metropolitan area with portions of property in Crystal, Brooklyn Park and Brooklyn Center. Many thriving businesses call the airport home, including a busy flight school, a nationally recognized airport parts and maintenance facility, and a nationally known propeller repair and overhaul facility. It also has the only turf runway within the metro area.

The airport logged 42,592 operations in 2022, which represented a 12.54% increase over 2021.

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 improvements included 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, as noted above. The parallel Runway 14R-32L has been decommissioned and was reconstructed as a taxiway. All associated electrical runway and taxiway lighting work was included along with taxiway reconfiguration to simplify airfield geometry. All construction on these improvements is now complete.

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.



Crystal Airport

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 in August 2019.

7.3 MIC PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

There are no projects in the preliminary 2024-2030 CIP at the Crystal Airport that meet the criteria for environmental review as defined in Minnesota Statutes Section 473.614.

7.4 MIC CUMULATIVE POTENTIAL FOR ENVIRONMENTAL EFFECTS

Projects in the preliminary 2024-2030 CIP at the Crystal Airport do not include any major improvements. The only project planned for 2024 include replacement of underground storage tanks. Projects in out years include other pavement reconstruction, LED lighting, security gate replacements, obstruction removals and connection of lighting circuits to MAC’s monitoring and control systems. 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 conventional mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at MIC.

Crystal Airport



8.0 ANOKA COUNTY–BLAINE AIRPORT (ANE)

The Anoka County – Blaine Airport, located north of the Twin Cities metro area, is home to the most diverse aircraft fleet in the MAC’s general aviation system. A variety of vintage, experimental, recreational, and corporate aircraft are based at ANE.

While operations at ANE decreased by 12% in 2022 compared to 2021, it continues to be the second-busiest MAC airport with 65,688 operations in 2022. It was also home to the Goodyear Blimp during the 3M Open, held in July at the PGA’s tournament players club in Blaine.

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 anticipates the next update to the LTCP will be initiated in the next two to three years.

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. The Xylite Street Relocation is currently listed in year 2025 in the preliminary 2024-2030 CIP. As a demand-driven project that ultimately supports an expansion of the east hangar area, it is possible the project could continue to be pushed out to later years in the CIP.

8.3 ANE PROJECTS REQUIRING PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

No projects in the 2024-2030 Preliminary CIP at ANE meet the criteria defined in Minnesota Statutes Section 473.614, except for one. As noted above and shown in Table 8-1 on page 21, the Xylite Street Relocation project was included in the environmental review already 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	2025	Included in the Federal EA/State EIS Document Completed in 2003 for Proposed Improvements at ANE

8.4 ANE CUMULATIVE POTENTIAL ENVIRONMENTAL EFFECTS

Projects currently proposed for 2024 include runway pavement reconstruction, replacement of underground storage tanks, and construction of a new small equipment and storage building for the MAC. Other projects in the Preliminary CIP in the out years include pavement reconstruction, replacement of security gate controllers, and electrical vault improvements.

The ANE West Perimeter Road project, currently shown in the preliminary CIP for 2024, involves the construction of a connector road between hangar areas. It is likely there will be minor wetland impacts associated with this project, for which the appropriate permitting will be completed. This project does not meet the criteria for a state EAW. If MAC decides to utilize federal funds for the project, the appropriate level of federal environmental review will be completed for the project. It is possible this project will continue to be pushed to outer years in the CIP.

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 conventional mitigation measures and best management practices, and do not constitute long-term cumulative potential effects when combined with other projects at ANE.



Corporate Hangar at 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 17, 2023 through November 17, 2023. Comments may be submitted either in writing or as part of the formal Public Hearing.

During the public comment period, comments may be submitted in writing. Please include “**MAC 2024-2030 AOEE**” in the email or letter header, and address the correspondence to:

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

A public hearing for this AOEE is scheduled as part of the regular meeting of the MAC Planning Development and Environment (PD&E) Committee on November 6, 2023 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.

Please allow for ample time to arrive and get through security. Follow these instructions to attend the MAC Public Hearing:

- Park in Hourly 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 2024-2030 Capital Improvement Program (CIP) and present it to the full Commission for adoption during the month of December 2023. The December PD&E Committee meeting, scheduled for December 4, 2023, 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 2024-2030 CIP LISTING

10.2 APPENDIX B – DESCRIPTIONS FOR 2024 PROPOSED PROJECTS

10.3 APPENDIX C – DRAFT DESCRIPTIONS FOR 2025-2030 PROJECTS THAT MEET CRITERIA DEFINED IN MINNESOTA STATUTE SECTION 473.614

Please note that the project names, scopes, dollar amounts, and construction years scheduled are shown in the Appendices just as they are included in the MAC Preliminary 2024-2030 CIP. These are subject to change in the Final version of the 2024-2030 CIP or other future CIP documents.



3

NEW CONCOURSE September 19, 2022	T2 GATE NORTH EXPANSION 90 % Design Review	Miller Dunwiddie	MAC MINNESOTA AIRPORTS CENTER
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Rendering for MSP Terminal 2 North Gate Expansion

Notes	MSP End of Life/Replacement Projects	2024	2025	2026	2027	2028	2029	2030
10 - Terminal 1								
2	Concourse and Hub Tram Replacement			\$300,000,000	\$300,000,000			
3	Cooling Unit Replacement	\$1,125,000						
4	Passenger Boarding Bridge Replacements	\$4,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000
5	Recarpeting Program		\$2,000,000					
5	Terminal 1 Outbound Baggage Handling System Replacement					\$250,000,000		
13 - Energy Management Center								
7	Terminal 1 Boiler & Chiller Replacement & EMC Expansion		\$250,000		\$420,000,000			
5	Concourse E and F Bridge Heating and Cooling System Replacement	\$2,200,000	\$1,800,000					
3	GTC Dual-temperature Pump Improvements	\$2,300,000						
3	Variable Air Volume (VAV) Box Replacement	\$1,900,000		\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
21 - Field and Runway								
2	30L Deicing Pad Expansion					\$20,000,000		
2	30L Deicing Pad Reconstruction		\$11,500,000		\$15,000,000			
5	30L EMAS Replacement		\$19,000,000					
2	Airfield Snow Melter Replacement/Upgrades	\$1,800,000	\$1,800,000	\$1,800,000	\$2,000,000	\$2,000,000		
2	Bituminous Shoulder Reconstruction	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000			
2	Concourse G Apron Pavement Reconstruction	\$11,600,000	\$13,500,000			\$15,000,000	\$14,000,000	\$16,000,000
2	Runway 12L-30R Reconstruction			\$35,000,000				
2	Taxiway A Pavement Reconstruction					\$4,500,000		
2	Taxiway B Pavement Reconstruction	\$2,400,000	\$7,500,000			\$6,000,000	\$5,000,000	\$8,000,000
2	Taxiway C Pavement Reconstruction						\$10,000,000	
2	Taxiway D Reconstruction		\$2,500,000					
2	Taxiway H Pavement Reconstruction				\$6,500,000			
2	Taxiway J Pavement Reconstruction				\$7,500,000			
2	Taxiway R Pavement Reconstruction			\$9,500,000				
26 - Terminal Roads/Landside								
2	Terminal 1 Access Roadway Bridge Rehabilitation							
2	UPS Loop Pavement Reconstruction	\$2,000,000						
4	Variable Message Signs Replacement, Phase 3	\$1,600,000						
31 - Parking								
5	Parking Ramp Snow Melter Replacement/Upgrades	\$1,350,000	\$1,350,000	\$1,400,000	\$1,400,000	\$1,400,000		
36 - Terminal 2								
4	Terminal 2 Pre-Conditioned Air (PCA) (funded and started in 2023)							
5	Terminal 2 Recarpeting Program	\$1,300,000	\$150,000					
4	Terminal 2 Ticket Counter/Insert Replacement		\$730,000					
39 - Public Areas/Roads								
2	East 62nd Street Reconstruction				\$4,100,000			
2	East 70th Street Reconstruction	\$2,400,000						
2	Post Road Reconstruction Project			\$5,000,000				
56 - Trades/Maintenance Buildings								
6	MSP Liquid Deicer Storage Facility	\$11,200,000						
70 - General Office/Administration								
3	GO Building VAV Replacement and Upgrade		\$2,000,000					
MSP End of Life/Replacement Projects Subtotal		\$48,175,000	\$75,080,000	\$365,700,000	\$769,500,000	\$310,900,000	\$41,000,000	\$36,000,000

Notes	MSP IT Projects	2024	2025	2026	2027	2028	2029	2030
	10 - Terminal 1							
4	Concourse C and G Digital Directory Replacement	\$200,000						
4	MAC Technology Upgrades	\$10,000,000	\$10,000,000	\$11,000,000	\$11,000,000	\$11,000,000	\$11,000,000	\$12,000,000
5	Telecom Room Equipment Continuity (TREC)	\$1,510,000	\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000
	12 – Federal Inspection Station (FIS).							
5	Customs and Border Protection Infrastructure		\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	36 - Terminal 2							
4	Upgrade and Modernize Terminal 2 Kiosks		\$1,000,000					
	46 - Hangars and Other Buildings							
5	Multiple Points of Entry Facility		\$5,000,000	\$5,000,000	\$5,000,000			
	63 - Police							
5	Badging and Door Access (SAACS/ProWatch) Modernization			\$2,100,000				
5	Card Access Modifications	\$2,500,000		\$2,800,000		\$2,500,000		
5	Public Safety Land Mobile Radio System Solutions	\$500,000	\$1,000,000					
5	Public Safety Video (IVISN) Modernization		\$1,100,000	\$1,000,000	\$1,000,000			
MSP IT Projects Subtotal		\$14,710,000	\$20,850,000	\$24,650,000	\$19,750,000	\$16,250,000	\$13,750,000	\$14,750,000

Notes	MSP Long Term Comprehensive Plan Projects	2024	2025	2026	2027	2028	2029	2030
	10 - Terminal 1							
1	Baggage Claim/Ticket Lobby Operational Improvements	\$25,000,000						
6	Checkpoint Expansion						\$11,000,000	
1	Concourse G Infill - Pod 2-3	\$320,000,000						
7	Design and Construction Standards Update (funded and started in 2023)							
1	D-Pod Outbound Baggage System				\$15,000,000			
7	MSP Airport Layout Plan		\$1,000,000					
7	MSP Environmental Review		\$2,000,000					
7	MSP Long Term Plan						\$3,000,000	
	21 - Field and Runway							
5	MSP Obstructions Removals			\$1,000,000		\$1,000,000		
7	NAVAIDS Study for North Campus Development (funded and started in 2023)							
1	Runway 30R Parallel Taxiway			\$12,000,000	\$10,000,000	\$14,000,000		
	36 - Terminal 2							
7	Long Term Plan Projects (fees)	\$1,000,000						
1	Terminal 2 North Gate Expansion	\$237,000,000						
MSP Long Term Comprehensive Plan Projects Subtotal		\$583,000,000	\$3,000,000	\$13,000,000	\$25,000,000	\$15,000,000	\$14,000,000	\$0

Notes	MSP Maintenance/Facility Upgrade Projects	2024	2025	2026	2027	2028	2029	2030
	10 - Terminal 1							
5	ADO Office Expansion	\$4,000,000						
9	Art Display Areas	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
9	Arts Master Plan	\$1,260,000	\$1,110,000	\$1,810,000	\$1,685,000	\$600,000	\$600,000	
4	Concourse A Heating System Upgrade	\$11,000,000						
5	Delivery Node Redevelopment	\$2,300,000	\$2,700,000	\$7,800,000	\$4,320,000	\$5,000,000		
5	F/G Connector & Skyclub Repairs and Improvements		\$1,100,000					
2	Folded Plate Repairs		\$43,400,000					
5	Lavatory Buildings Rehabilitation	\$4,400,000						
4	Lighting Infrastructure Technology and Equipment (LITE)	\$1,500,000	\$2,550,000	\$1,500,000	\$2,550,000	\$1,500,000	\$2,200,000	\$3,000,000
5	LRT Stations Updates		\$1,600,000					
2	Main Mall Modernization					\$3,500,000	\$3,500,000	
5	Restroom Upgrade Program	\$2,295,000	\$2,400,000	\$3,200,000	\$2,625,000	\$2,050,000	\$2,050,000	\$2,050,000
4	Steam System Upgrade Program	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000		
4	Terminal 1 Curbside Canopy Repairs and Lighting Upgrades	\$350,000						
6	Terminal 1 Employee Breakroom		\$450,000					
2	Terminal 1 Information Booth Replacements		\$850,000					
2	Terminal 1 Tug Drive Heater Replacement	\$2,000,000						
5	Terminal 1 Tug Drive Waterproofing	\$2,900,000	\$2,900,000	\$2,900,000	\$2,900,000			
5	Terminal 1 Tram Maintenance	\$1,000,000						
4	Way-Finding Sign Replacement	\$1,000,000	\$3,000,000		\$2,000,000		\$2,000,000	
	12 – Federal Inspection Station (FIS).							
6	FIS Facility Upgrades	\$2,175,000		\$845,000				
	13 - Energy Management Center							
4	Building Management (IMACS) Replacement		\$4,200,000					
4	Chiller Plant Optimization	\$4,000,000						
4	Energy Savings Program		\$2,000,000		\$2,000,000			
4	Indoor Air Quality Monitoring System			\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
4	MAC Automation Infrastructure Program	\$5,300,000	\$2,300,000	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	
6	Material Storage Building - Boiler Room Addition (funded and started in 2023)							
3	Steam Trap Monitoring System			\$3,000,000				
4	Victaulic Piping Replacement		\$19,000,000	\$4,000,000	\$2,200,000	\$2,300,000	\$2,350,000	
	21 - Field and Runway							
5	Anti-Climb Fencing & Lighting	\$1,000,000						
4	Apron Lighting LED Upgrade	\$5,000,000	\$1,000,000	\$3,000,000	\$1,000,000	\$1,000,000		
6	Field Maintenance Building Efficiency Program		\$53,000,000		\$105,000,000		\$46,000,000	
5	GBAS - SLS-4000 Installation		\$7,000,000					
2	Runway 12L Deice Pad Reconfiguration	\$700,000						
4	Runway LED Lighting Upgrade				\$3,000,000			
4	Taxiways B & Q Islands	\$800,000						
2	Terminal 2 Glycol Lift Station/Forcemain		\$1,500,000					
4	Tunnel Lighting LED Upgrade	\$1,100,000	\$1,000,000	\$900,000	\$400,000	\$1,200,000		
	26 - Terminal Roads/Landside							
2	Tunnel Approaches Reconstruction (funded and started in 2023)							

MSP Maintenance/Facility Upgrade Projects continues on the next page

Notes	MSP Maintenance/Facility Upgrade Projects (continued)	2024	2025	2026	2027	2028	2029	2030
31 - Parking								
4	Electric Vehicle Charging Network Expansion		\$1,500,000	\$850,000	\$850,000	\$1,500,000	\$1,500,000	\$1,500,000
3	Parking Guidance System		\$6,500,000					
2	Red/Blue Parking Levels 2 & 3		\$9,200,000					
2	Terminal 2 Landside Office Remodel		\$250,000					
36 - Terminal 2								
5	Ramp Information Display System (RIDS)		\$3,600,000					
5	Terminal 2 Baggage Handling System		\$410,000					
2	Terminal 2 Gate Area Passenger Amenities		\$1,000,000					
2	Terminal 2 Gate Desk/Podium Replacement				\$450,000			
6	Terminal 2 Ground Transportation Waiting Area Expansion		\$400,000					
7	Terminal 2 Lobby Passenger Flow Program	\$1,000,000						
2	Terminal 2 MUFIDS/EVIDS Millwork Upgrades		\$350,000					
5	Terminal 2 Skyway to LRT Flooring Installation		\$800,000					
5	Terminal Door Locks and Emergency Egress Upgrades	\$400,000						
39 - Public Areas/Roads								
2	34th Avenue Bus Area Reconstruction	\$800,000						
2	34th Avenue Reconstruction			\$8,200,000	\$8,200,000			
2	34th Avenue Sanitary Sewer Replacement			\$2,200,000				
2	34th Avenue Traffic Control Improvements	\$200,000						
2	Diverging Diamond Intersection Rehabilitation				\$380,000			
4	Highway 494 Terminal and Airline Signs (funded and started in 2023)							
2	Taxi Cab Holding Lot Rehabilitation for Cell Phone Lot (funded/started in 2023)							
2	Terminal 1 Ground Transportation Modifications (funded/started in 2023)							
2	Terminal 1 Inbound Roadway Median Improvements		\$3,300,000					
4	Tunnel Fan Replacement	\$4,700,000	\$6,800,000					
46 - Hangars and Other Buildings								
7	Campus Out Building Study		\$300,000					
6	MAC Storage Facility	\$34,000,000						
6	Safety and Security Center	\$163,000,000						
56 - Trades/Maintenance Buildings								
6	Trades Building Rehabilitation & Addition			\$25,000,000				
63 - Police								
5	Emergency Communications Center Updates	\$150,000						
5	Perimeter Fence Intrusion Detection System		\$1,000,000					
5	Perimeter Gate Security Improvements		\$6,500,000	\$6,500,000				
5	Police Department Improvements at Terminals 1 & 2					\$1,500,000		
5	Police Department Remote Threat Isolation and Training Building		\$15,500,000					
5	Public Safety Modifications		\$1,000,000		\$850,000		\$850,000	
2	Squad Parking Modifications			\$140,000				
66 - Fire								
4	ARFF 1 Garage Door Replacement				\$1,500,000			
5	Fire Protection Systems Upgrades		\$10,000,000			\$10,000,000		

MSP Maintenance/Facility Upgrade Projects continues on the next page

Notes	MSP Maintenance/Facility Upgrade Projects (continued)	2024	2025	2026	2027	2028	2029	2030
70 - General Office/Administration								
4	Digital Signage In/At The GO			\$300,000				
2	GO Workspace Improvements	\$250,000						
76 - Environment								
4	Firefighting Foam System Conversion	\$3,000,000						
4	Glycol Sewer & Storm Sewer Inspection/Rehabilitation	\$1,700,000	\$600,000				\$2,000,000	\$1,000,000
4	Ground Service Equipment (GSE) Electrical Charging Stations	\$500,000						
4	Infield Fueling Facility Secondary Containment		\$400,000					
4	Lift Station at Ponds 1 and 2		\$2,300,000					
5	Maintenance Campus Infiltration Pond	\$13,100,000						
5	MSP Pond 3 / 494 Pond Sediment Removal & Repairs		\$5,500,000					\$14,000,000
4	Runway 12R-30L Glycol Forcemain Environmental Improvements	\$1,700,000						
2	Glycol Tank Roof Repairs					\$700,000		
4	Photovoltaic System Improvements	\$3,100,000						
MSP Maintenance/Facility Upgrade Projects Subtotal		\$283,534,048	\$232,124,050	\$77,399,052	\$147,164,054	\$36,104,056	\$66,704,058	\$22,804,060

Notes	MSP Noise Mitigation Projects	2024	2025	2026	2027	2028	2029	2030
8	Noise Mitigation Projects	\$1,000,000	\$600,000					
MSP Noise Mitigation Projects		\$1,000,000	\$600,000					

Notes	MSP Ongoing Maintenance Programs	2024	2025	2026	2027	2028	2029	2030
10 - Terminal 1								
4	Air Handling Unit Replacement	\$5,100,000	\$13,000,000	\$13,000,000	\$13,000,000	\$13,000,000	\$13,000,000	\$13,000,000
4	Baggage System Upgrades	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
4	Concourse G Rehabilitation	\$10,000,000						
4	Conveyance System Upgrades		\$3,000,000					
4	Electrical Infrastructure Program (EIP)	\$2,500,000		\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$3,000,000
4	Electrical Substation Replacement	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000			
4	Emergency Power Upgrades	\$2,500,000		\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000	\$3,000,000
4	Ground Power Substation Replacement	\$9,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000
4	Plumbing Infrastructure Upgrade Program	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$800,000
5	Terminal Building Remediation Program	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,500,000
4	Terminal Miscellaneous Modifications	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$3,100,000	\$3,100,000	\$3,100,000
13 - Energy Management Center								
4	EMC Life Safety Infrastructure Program	\$1,900,000	\$1,900,000	\$1,900,000	\$1,900,000	\$1,900,000	\$1,900,000	\$1,900,000
4	EMC Plant Upgrades	\$2,100,000	\$2,150,000	\$2,200,000	\$2,300,000	\$2,400,000	\$2,500,000	
21 - Field and Runway								
2	Airside Electrical Construction	\$2,500,000	\$5,100,000	\$2,500,000	\$2,000,000	\$2,000,000	\$2,000,000	
2	Airside Roadway Pavement Restoration	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$1,200,000	\$3,600,000
2	Miscellaneous Airfield Construction	\$3,500,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	
2	Pavement Joint Sealing/Repair	\$800,000	\$800,000	\$800,000	\$1,000,000	\$1,000,000	\$1,000,000	\$3,000,000
2	Terminal 2 Apron Reconstruction				\$6,500,000	\$8,000,000	\$8,000,000	
26 - Terminal Roads/Landside								
2	Tunnel/Bridge Inspections	\$120,000	\$120,000	\$120,000	\$120,000	\$150,000	\$150,000	\$150,000
5	Tunnel/Bridge Miscellaneous Modifications		\$1,000,000		\$1,000,000		\$1,000,000	
31 - Parking								
2	Parking Structure Rehabilitation	\$5,500,000	\$4,750,000	\$5,650,000	\$5,000,000	\$6,000,000	\$5,175,000	\$6,350,000
2	Terminal 2 Parking Facility Watermain Improvements	\$670,000						
39 - Public Areas/Roads								
2	Concrete Joint Repair	\$1,000,000	\$300,000	\$400,000	\$1,200,000	\$2,900,000	\$750,000	
2	Landside Pavement Rehabilitation	\$500,000	\$500,000		\$500,000	\$600,000	\$600,000	\$600,000
2	Landside Utility Rehabilitation	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	\$750,000	
2	Roadway Fixture Refurbishment	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$200,000
46 - Hangars and Other Buildings								
5	Campus Building Rehabilitation Program	\$1,500,000	\$1,500,000		\$1,500,000		\$1,500,000	
2	Campus Parking Lot Reconstructions	\$3,075,000				\$3,075,000		
10	End of Life Campus Building Demolition		\$400,000	\$3,700,000				
2	MSP Campus Building Roof Replacements	\$6,100,000	\$12,500,000	\$10,200,000	\$1,000,000	\$1,000,000	\$1,000,000	\$2,000,000
56 - Trades/Maintenance Buildings								
5	North Field Maintenance Mechanical Infrastructure Project			\$5,000,000				
4	Sump Pump Controls	\$4,000,000	\$4,000,000	\$3,500,000				
70 - General Office/Administration								
5	GO Building Improvements	\$500,000		\$500,000		\$500,000		\$500,000
MSP Ongoing Maintenance Programs Subtotal		\$81,765,000	\$81,920,000	\$85,370,000	\$72,920,000	\$68,925,000	\$64,975,000	\$55,200,000

Notes	MSP Tenant Projects	2024	2025	2026	2027	2028	2029	2030
	10 - Terminal 1							
2	Concessions Upgrades/Revenue Development	\$220,000	\$224,000	\$228,800	\$234,600	\$241,500	\$250,000	\$260,000
5	Concourse and Gatehold Modernization	\$85,600,000	\$73,100,000					
6	Elevator and Concourse Improvements Related to Relocated United Club					\$1,000,000		
4	Terminal 1 Pre-Conditioned Air (PCA)	\$2,500,000						
	36 - Terminal 2							
6	Terminal 2 Concessions Redevelopment	\$2,000,000						
7	Terminal 2 Multipurpose Facility (study)	\$300,000						
	39 - Public Areas/Roads							
2	Tenant Parking Lot Reconstruction		\$2,900,000					
	46 - Hangars and Other Buildings							
6	Ground Service Equipment (GSE) Maintenance Facility					\$2,000,000		
MSP Tenant Projects Subtotal		\$90,620,000	\$76,224,000	\$228,800	\$234,600	\$3,241,500	\$250,000	\$260,000

Notes	Reliever Airports Long Term Comprehensive Plan Projects	2024	2025	2026	2027	2028	2029	2030
	81 - St. Paul							
7	STP Airport Layout Plan	\$500,000						
7	STP Environmental Review			\$800,000				
7	STP Long Term Comprehensive Plan	\$800,000						
	82 - Lake Elmo							
7	21D Airport Layout Plan		\$100,000				\$500,000	
7	21D Long Term Comprehensive Plan						\$800,000	
	83 - Airlake							
7	LVN Airport Layout Plan			\$100,000			\$500,000	
7	LVN Long Term Comprehensive Plan						\$800,000	
1	LVN Runway 12-30 Improvements		\$4,400,000					
	84 - Flying Cloud							
7	FCM Environmental Review		\$800,000					
10	FCM Purchase and Demolition of Hangars	\$1,300,000						
6	FCM South Building Area Utilities			\$800,000				
	85 - Crystal							
7	MIC Airport Layout Plan	\$100,000				\$500,000		
7	MIC Environmental Review							\$800,000
7	MIC Long Term Comprehensive Plan					\$800,000		
	86 - Anoka County - Blaine							
7	ANE Airport Layout Plan		\$500,000					
6	ANE Building Area Development - Xylite St. Relocation		\$1,000,000					
7	ANE Environmental Review				\$800,000			
7	ANE Long Term Comprehensive Plan Update		\$800,000					
Reliever Airports Long Term Comprehensive Plan Projects Subtotal		\$2,700,000	\$7,600,000	\$1,700,000	\$800,000	\$1,300,000	\$2,600,000	\$800,000

Notes	Reliever Airports Maintenance/Facility Upgrade Projects	2024	2025	2026	2027	2028	2029	2030
	80 – Reliever Airports							
5	Reliever Airports Security Fencing, Gates & Lighting	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
4	Reliever Indoor Air Quality Project				\$1,400,000			
4	Relievers Building Miscellaneous Modifications	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
5	Relievers Obstruction Removal		\$300,000		\$300,000		\$300,000	
2	Relievers Pavement Rehabilitation Miscellaneous Modifications	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
6	Relievers Used Oil Sheds & Tanks		\$550,000					
	81 - St. Paul							
6	STP Airport Perimeter Roads		\$500,000					
2	STP Airport Road and Eaton Street Retaining Wall					\$700,000		
6	STP Cold Equipment Storage Building			\$750,000				
6	STP Customs and Border Protection General Aviation Facility	\$4,500,000						
6	STP Equipment Storage Building and Employee Crew Rooms					\$4,000,000		
2	STP Floodwall Inspection and Repairs (funded and started in 2023)							
2	STP Infrastructure Replacement		\$1,200,000					
3	STP Intelligent Monitoring and Control System (IMACS) Expansion	\$2,250,000						
4	STP LED Edge Lighting Upgrades	\$1,500,000						
5	STP MAC Building Improvements		\$200,000		\$200,000		\$200,000	
2	STP Pavement Rehabilitation-Taxilanes/Tower Road			\$750,000				
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 Crack Sealing	\$250,000						
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			
5	STP Vehicle Gate Replacement (funded and started in 2023)							
	82 - Lake Elmo							
3	21D AWOS Replacement		\$200,000					
3	21D Intelligent Monitoring and Control System (IMACS)		\$3,500,000					
6	21D Materials Storage Building	\$500,000						
2	21D North Building Area Pavement Rehabilitation	\$900,000						
2	21D North Service Roads Rehabilitation		\$500,000					
2	21D Northside Taxiway Reconstruction		\$600,000				\$600,000	
1	21D Runway 04-22 Pavement Rehabilitation	\$4,000,000						
4	21D Taxiway Echo Edge Lighting			\$600,000				
	83 - Airlake							
3	LVN AWOS Replacement		\$100,000					
2	LVN Existing Runway 12-30 Reconstruction		\$3,500,000					
3	LVN Intelligent Monitoring and Control System (IMACS)			\$1,150,000				
4	LVN LED Edge Lighting (funded and started in 2023)							
5	LVN Maintenance Building Renovation	\$1,250,000						
2	LVN North Service Road Pavement Rehabilitation				\$500,000			
2	LVN North Taxilanes Pavement Rehabilitation				\$1,250,000			

Reliever Airports Maintenance/Facility Upgrade Projects continues on the next page

Notes	Reliever Airports Maintenance/Facility Upgrade Projects (continued)	2024	2025	2026	2027	2028	2029	2030
	83 - Airlake continued							
5	LVN Perimeter Fencing and Gates				\$4,000,000			
2	LVN South Building Area Utilities and Taxilanes			\$1,300,000				
2	LVN Taxiway Bravo Pavement Rehabilitation		\$600,000					
	84 - Flying Cloud							
2	FCM Airport Access Roads and Tango Lane	\$600,000						
2	FCM Airport Access Roads Pavement Rehabilitation				\$500,000	\$500,000	\$500,000	
6	FCM Electrical Vault Modifications			\$500,000				
2	FCM Executive Aviation/MAC Maintenance Apron	\$700,000						
5	FCM Gate Replacements		\$500,000					
2	FCM Infrastructure Replacement		\$1,750,000					
3	FCM Intelligent Monitoring and Control System (IMACS)	\$2,250,000						
5	FCM MAC Building Improvements			\$600,000				
2	FCM Northside Access Road from Bravo to November Lane		\$900,000					
6	FCM Parcel 7 Sewer and Water (funded and started in 2023)							
2	FCM Runway 10R-28L Crack Sealing	\$200,000						
2	FCM Runway 10R-28L Pavement Rehabilitation			\$2,700,000				
2	FCM Runway 18-36 Pavement Rehabilitation						\$700,000	
2	FCM Spring Lane Extension and Taxilane Connector	\$600,000						
5	FCM Tower Equipment for Airfield Lighting and Utilities		\$1,000,000					
2	FCM Underground Fuel Storage Tank Replacement	\$500,000						
	85 - Crystal							
4	MIC Existing Hangar Revitalization			\$800,000				
5	MIC Gate Replacement			\$800,000				
3	MIC Intelligent Monitoring and Control System (IMACS)			\$1,150,000				
3	MIC LED Edge Lighting Upgrade (funded and started in 2023)							
2	MIC Runway 6L-24R Pavement Rehabilitation				\$2,500,000			
2	MIC Runway 6L-24R and Taxiway Golf Pavement Rehabilitation		\$250,000					
2	MIC Service Road Pavement and Fencing			\$600,000				
2	MIC Stormwater Monitoring Location Drainage Repair		\$100,000					
2	MIC Taxilanes Pavement Rehabilitation		\$600,000			\$600,000		
2	MIC Taxiway Alpha Pavement Reconstruction						\$1,200,000	
2	MIC Tower Parking Lot Reconstruction		\$1,500,000					
2	MIC Underground Fuel Storage Tank Replacement	\$500,000						
	86 - Anoka County - Blaine							
2	ANE Airport Rd and GA Blvd Pavement Rehabilitation	\$700,000	\$700,000	\$700,000				
4	ANE Electrical Vault Improvements		\$750,000					
6	ANE Equipment Storage and Maintenance Building	\$1,200,000						
5	ANE Gate Controller Upgrades			\$400,000				
3	ANE Intelligent Monitoring and Control System (IMACS)		\$1,150,000					
2	ANE Pavement Rehabilitation - Taxiway A and Edge Lights (funded in 2023)							
2	ANE Runway 18-36 Pavement Rehabilitation		\$3,800,000					

Reliever Airports Maintenance/Facility Upgrade Projects continues on the next page

Notes	Reliever Airports Maintenance/Facility Upgrade Projects (continued)	2024	2025	2026	2027	2028	2029	2030
	86 - Anoka County - Blaine continued							
2	ANE Runway 9-27 Pavement Rehabilitation					\$3,750,000		
2	ANE Taxiway B Pavement Rehabilitation						\$1,400,000	
2	ANE Underground Fuel Storage Tank Replacement	\$500,000						
6	ANE West Perimeter Road	\$1,800,000						
Reliever Airports Maintenance/Facility Upgrade Projects Subtotal		\$27,104,048	\$36,454,050	\$18,704,052	\$22,354,054	\$9,854,056	\$5,804,058	\$904,060

OVERALL TOTALS for the PRELIMINARY CIP		2024	2025	2026	2027	2028	2029	2030
	MSP Subtotal	\$1,101,806,072	\$489,200,075	\$566,349,878	\$1,034,570,681	\$450,422,584	\$200,681,087	\$129,016,090
	Relievers Subtotal	\$29,804,048	\$44,054,050	\$20,404,052	\$23,154,054	\$11,154,056	\$8,404,058	\$1,704,060
	Total	\$1,131,610,120	\$533,254,125	\$586,753,930	\$1,057,724,735	\$461,576,640	\$209,085,145	\$130,720,150

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).
4. An electrical, mechanical, or structural device and/or modification of an existing structure that does not significantly increase the size or passenger capacity (an EAW or EIS is not required).
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).
10. Projects involving the demolition of existing buildings (an EAW or EIS is not required).

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

2024 Capital Improvement Program Narratives

MSP END OF LIFE/REPLACEMENT PROJECTS

End of Life/Replacement projects include systems, components, and pavements that can no longer be economically or feasibly maintained and must be replaced.

10 – Terminal 1

Cooling Unit Replacement **\$1,125,000**

This project will replace the remaining once through cooling units across Terminal 1. There are twelve units included for replacement with either a chilled water unit or a DX unit depending on the area it serves. The new units will connect to IMACS for monitoring and control.

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

This program replaces 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.

13 – Energy Management Center

Concourse E and F Bridge Heating and Cooling System Replacement **\$2,200,000**

This is the second of three phases of work to replace and improve the heating and cooling systems on the bridges to Concourses E and F. In this phase, the original chilled water piping will be replaced and located in an accessible soffit. A redundant cooling loop will be added as well to minimize impacts to the concourses during disruptions and construction relocations.

GTC Dual-temperature Pump Improvements **\$2,300,000**

This project will replace end of life pumps and supporting infrastructure.

Variable Air Volume (VAV) Box Replacement **\$1,900,000**

This program will replace Variable Air Volume (VAV) boxes throughout Terminal 1 with more efficient equipment connected to the IMACS system and located for maintenance accessibility.

21 – Field and Runway

Airfield Snow Melter Replacement/Upgrades **\$1,800,000**

This project will replace, modify and/or upgrade snow melters on the airfield that are beyond their useful life.

Bituminous Shoulder Reconstruction **\$1,000,000**

This project will reconstruct full depth bituminous shoulders along Runway 12L-30R from Taxiway P10 to Taxiway M and from Taxiway P3 to Taxiway P1. This work will restore transverse grades to shoulders to improve drainage and meet FAA standards. Work will include removals, crushed aggregate base, bituminous pavement, pavement marking, and electrical construction.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

Concourse G Apron Pavement Reconstruction **\$11,600,000**

This project will reconstruct a portion of the apron area adjacent to Concourse G. Work will include removals, excavation, granular material, crushed aggregate base, concrete pavement, fuel pits, and pavement marking.

Taxiway B Pavement Reconstruction **\$2,400,000**

This project will reconstruct a portion of Taxiway B. Work will include removals, excavation, granular material, crushed aggregate base, concrete pavement, bituminous shoulders, pavement marking, and taxiway centerline lights.

26 – Terminal Roads/Landside

UPS Loop Pavement Reconstruction **\$2,000,000**

This project will reconstruct 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 will replace approximately 26 variable message signs across the MSP campus and install five new signs to assist with parking diversions.

31 – Parking

Parking Ramp Snow Melter Replacement/Upgrades **\$1,350,000**

This program provides for the evaluation, maintenance, miscellaneous modifications, and replacement of existing snow melters in parking ramps located on the MSP campus.

36– Terminal 2

Terminal 2 Recarpeting Program **\$1,300,000**

This multi-year program will replace end of life carpeting throughout Terminal 2.

39– Public Areas/Roads

East 70th Street Reconstruction **\$2,400,000**

This project reconstructs East 70th Street due to deteriorating pavement which requires annual maintenance repairs including existing manholes that are settling.

56– Trades/Maintenance Buildings

MSP Liquid Deicer Storage Facility **\$11,200,000**

This project includes construction of a new airfield runway deicer storage and off-loading facility with additional offload ports, upload ports, and increased liquid capacity for airfield runway deicing chemicals.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

MSP IT PROJECTS

MSP IT Projects include those that have a significant amount, if not all, technology-related enhancements, maintenance, or restructuring.

10 – Terminal 1

Concourse C and D Digital Directory Replacement \$200,000

The six digital displays on Concourses C and G will be replaced to provide a consistent customer experience similar to the displays in the Terminal 1 mall.

MAC Technology Upgrades \$10,000,000

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 2023.

Telecom Room Equipment Continuity (TREC) \$1,510,000

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.

63 – Police

Card Access Modifications \$2,500,000

This is a multi-year program to refresh the inventory of card access security readers as they get to end of life, add outdoor biometric readers, add mobile card readers, add other readers as needed throughout the campus, and align card access control with other surveillance technology including IVISN.

Public Safety Land Mobile Radio System Solutions \$500,000

MAC public safety, along with additional MAC departments, operates on the statewide 800 MHz Allied Radio Matrix for Emergency Response (ARMER) system. All MAC departments with radio equipment that operates on the ARMER system have access to regional and statewide talk groups which support the ability to communicate during large-scale incidents where interoperability is crucial. As the MAC continues to flourish and grow there is a continuous need to both identify and correct radio frequency and LTE coverage deficiencies to ensure seamless communications during critical situations.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

MSP LONG TERM COMPREHENSIVE PLAN PROJECTS

MSP Long Term Comp Plan projects include projects that enhance or expand the airport facilities in order to meet existing or forecasted passenger needs.

10 – Terminal 1

2023 Baggage Claim / Ticket Lobby Operational Improvements **\$25,000,000**

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 origin 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.

2023 Concourse G Infill – Pod 2-3 **\$320,000,000**

This project includes an expansion/redevelopment of Concourse G. The expansion includes an infill between the existing Pods 2 and 3, which will provide enlarged gate hold areas. The redevelopment will include new and upgraded restrooms, new moving walkways, new mechanical rooms and air handling equipment, redevelopment of concessions space and miscellaneous relocations of tenant space within the project footprint.

36 – Terminal 2

Long Term Plan Projects (fees) **\$1,000,000**

This budget will fund preliminary studies of a South expansion of Terminal 2 and its associated projects and phasing.

Terminal 2 North Gate Expansion **\$237,000,000**

This project will expand Terminal 2 to the north, adding passenger boarding bridges, gate hold seating, concessions, and support spaces.

MSP MAINTENANCE/FACILITY UPGRADE PROJECTS

MSP Maintenance/Facility Upgrade projects include those that provide improvements to individual buildings or systems across the campus on a one-time or short-term basis.

10 – Terminal 1

ADO Office Expansion **\$4,000,000**

Additional office and meeting space is needed for the Airport Director's Office, suite 3000, to function properly. This expansion and remodel will support increasing MAC staffing numbers and changes in workspace needs.

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.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

Arts Master Plan **\$1,260,000**
This program supports procurement of commissioned art and rotating exhibits as part of the Percent for Arts program.

Concourse A Heating System Upgrade **\$11,000,000**
This project will replace the entire heating water system on Concourse A. The new system will include air handling unit fans, heat exchangers, pumps, piping, VAV boxes, FTR, and solar photovoltaic panels. All new equipment will have updated controls that connects into IMACS.

Delivery Node Redevelopment **\$2,300,000**
MAC's existing node delivery and storage system requires long-term improvements at Terminal 2 and Terminal 1 (Concourses A, C, E, F, and G) to provide for safe and efficient delivery, by the logistics company, to MAC and airport tenants. This program will improve or replace existing nodes with more centralized locations that should include loading docks, elevators where needed, adjacent storage, trash and recycling, etc. The 2024 project is planned to improve the delivery node at Concourse E.

Lavatory Buildings Rehabilitation **\$4,400,000**
This project will address on-going maintenance issues and aging components of the lavatory buildings at Terminal 1. This project will include a verification and assessment of the structure and roof and make repairs as need. The project will also provide, where needed, new vapor proof LED lighting, IVISN cameras, personnel doors, concrete floor waterproofing, and new tricherators. The project will also provide an exterior connection or removal of the Delta glycol tank located inside the G lavatory building. This project will replace the Terminal 1 lavatory building coiling garage doors at G1 and D1 with new high traffic breakaway rubber doors. These doors are designed to break away upon impact which will greatly reduce the long-term repair and replacement costs associated with the existing overhead coiling doors.

Lighting Infrastructure Technology and Equipment (LITE) **\$1,500,000**
This is a multi-year program that will analyze, assemble, and organize lighting system upgrade recommendations for the MSP campus. Annual investment in lighting infrastructure is necessary to ensure its safe operation, reduce energy and maintenance costs, and to implement technology upgrades to improve lighting quality. Light fixtures age and degrade due to time, heat or exterior elements. Lighting technologies upgrades will also provide for more energy efficient lighting systems.

Restroom Upgrade Program **\$2,295,000**
A study of all restrooms in Terminal 1 was completed in 2010 and a program developed to upgrade/modernize the restrooms at Terminal 1. From this study, each restroom was prioritized based on its condition. This program will provide for the phased modernization of the Terminal 1 restrooms to include upgraded finishes, lighting, air quality, energy saving upgrades, and ADA compliance.

Steam System Upgrade Program **\$1,600,000**
This program will replace steam pressure reducing stations that are near or past the end of their useful life. The program will also replace heat exchangers in two mechanical rooms and replace valves in the boiler fuel system piping.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

Terminal 1 Curbside Canopy Repairs and Lighting Upgrades **\$350,000**

This project will make improvements to the aging infrastructure on the East and West curbside canopies at Terminal 1, including new LED fixtures on the west canopy, snow dam systems, repairing gutters on the east and west canopies, and paint as needed.

Terminal 1 Tug Drive Heater Replacement **\$2,000,000**

This project will replace all existing Terminal 1 tug drive steam unit heaters with hot water unit heaters.

Terminal 1 Tug Drive Waterproofing **\$2,900,000**

The Terminal 1 tug drive was last sealed and waterproofed in 2007-2010. Concrete waterproofing typically has a 10-year lifespan and needs to be redone in order to minimize water infiltration into the structure and lower level spaces. This project would waterproof the concrete for the entire tug drive area located above basement level spaces.

Terminal 1 Tram Maintenance **\$1,000,000**

The project will provide replacement parts and maintenance for the concourse and hub tram systems to extend their useful life.

Way-Finding Sign Replacement **\$1,000,000**

Wayfinding is a critical customer service piece of our passenger’s experience at MSP. Existing wayfinding signs are outdated, provide information no longer relevant, or are no longer illuminated. This program replaces the failed cold-cathode illumination with LED backlit signs as it is not practical or cost effective to repair them. This program updates sign information, locations, and provides new illuminated signs and/or digital signs where needed at Terminal 1 and Terminal 2 and supports repair that exceeds routine maintenance budgets. The 2024 phase will also support improvements to the Tram wayfinding.

12 – Federal inspection Station (FIS)

FIS Facility Upgrades **\$2,175,000**

The FIS Facility Upgrades project is a mutli-year project to bring the FIS facilities in Terminal 1 and Terminal 2 up to the ATDS standards and other required improvements as prescribed by CBP.

13 – Energy Management Center

Chiller Plant Optimization **\$4,000,000**

This project installs new sensors throughout the chilled water system, installs variable frequency drives for pumps, and removes pumps in the system that are no longer necessary. Additionally, this project installs a new program on the MAC network, connected to IMACS, to operate the chiller plant at terminal 1. This program trends data within the system and proactively modifies its operations to run in the most efficient manner, while maintaining the cooling capacity to the terminal.

MAC Automation Infrastructure Program **\$5,300,000**

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.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

21 – Field and Runway

Anti-Climb Fencing and Lighting **\$1,000,000**

Fencing, CCTV cameras, and lighting will be added in the northeast area of the MSP campus.

Apron Lighting LED Upgrade **\$5,000,000**

This project will replace the older apron lighting units with more efficient LED fixtures.

Runway 12L Deice Pad Reconfiguration **\$700,000**

This project will reconfigure the Runway 12L Deice pad to allow the deicing of aircraft safely and more efficiently. The work scope includes the remarking of the deice pad slots and the relocation of the centerline lighting.

Taxiways B and Q Islands **\$800,000**

This project will construct a taxiway island at the intersection of created Taxiways C and D and P and Q.

Tunnel Lighting LED Upgrade **\$1,100,000**

This program will replace existing high intensity discharge type lighting with LED to save energy and reduce maintenance.

36 – Terminal 2

Terminal 2 Lobby Passenger Flow Program **\$1,000,000**

This project will expand the passenger flow program to the Terminal 2 passenger lobby.

Terminal Door Locks and Emergency Egress Upgrades **\$400,000**

This project will add door locking hardware and associated life safety panic devices to the front of house doors located at Terminal 1 and Terminal 2. Additionally, the project will connect to the MAC SAACS or IMACS systems to allow for remote locking and unlocking of the door hardware.

39 – Public Areas/Roads

34th Avenue Bus Area Reconstruction **\$800,000**

This project will reconstruct the 34th Avenue Bus Area in concrete. The existing roadway is reaching the end of its useful life and has had periodic maintenance to patch areas. The project limits include a portion of 34th Avenue from the MnDOT right-of-way to the bus loop entrance and the bus loop. The project will include concrete pavement, lighting, electrical infrastructure, landscape and other improvements.

34th Avenue Traffic Control Improvements **\$200,000**

This project will support the City of Bloomington's upgrade to the signal-related items as part of the Metro Transit Blue Line enhancement project.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

Tunnel Fan Replacement **\$4,700,000**

The existing fans in the 17/35 tunnel are past their useful life and the 4-22 tunnel fans are approaching the end of their useful life. This two-year project will replace these fans.

46 – Hangars and Other Buildings
MAC Storage Facility **\$34,000,000**

This project will construct a new building to provide storage and associated workspace to replace storage spread around the campus in buildings that can no longer provide adequate protection from the elements and pests.

Safety and Security Center **\$163,000,000**

This phase of the project will construct a building to house a new Integrated Operations Center which includes Airside Operations and the Emergency Communications Center, a dedicated primary Emergency Operations Center, and consolidated Airport Police Department facilities. 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
Emergency Communications Center Updates **\$150,000**

This project will provide updates in the PSAP (Public Safety Answering Point) operations area, common spaces, and individual offices to meet workspace needs.

70 – General Office/Administration
GO Workspace Improvements **\$250,000**

This project includes an office renovation of the GO south wing to add additional workspaces to accommodate new full-time employees.

76 – Environment
Firefighting Foam System Conversion **\$3,000,000**

This project will support converting firefighting foam from the AFFF mil-spec foam to F3 foam without intentionally added PFAS. This conversion includes multiple buildings, vehicle systems, project management, and firefighting equipment.

Glycol Sewer & Storm Sewer Inspection/Rehabilitation **\$1,700,000**

This project provides for cleaning and video inspection of gravity sewers, including deicing pads, plug and pump deicing areas, and conveyance sewer. This project also includes pressure testing of glycol forcemains.

Ground Service Equipment (GSE) Electrical Charging Stations **\$500,000**

This project will purchase and install charging stations for airline electric ground support equipment (GSE) at Terminal 2. These fast, energy-efficient charging stations allow for simultaneous charging, adjustable charging rates, and automatic shut-off when the GSE are fully charged.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

Maintenance Campus Infiltration Pond **\$13,100,000**

This project will prepare the site and install an infiltration pond to address stormwater management for the Field Maintenance and Trades campus north of the airfield, in support of several future building projects.

Runway 12R-30L Glycol Forcemain Environmental Improvements **\$1,700,000**

This 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.

Photovoltaic System Improvements **\$3,100,000**

This project will address replacement of modules and inverters in the solar arrays on the Purple and Blue ramps in order to return these systems to anticipated power outputs.

MSP NOISE MITIGATION PROJECTS

Noise Mitigation Consent Decree Amendment **\$1,000,000**

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

MSP On-Going Maintenance projects include buildings, systems, pavements, and other infrastructure that require improvements on an annual basis in order to maintain the facilities and manage MAC assets.

10 – Terminal 1

Air Handling Unit Replacement **\$5,100,000**

There are existing air handling units serving Terminal 1 that were installed with the original terminal construction in 1958-60 and are over 50 years old. A study of these units has been completed that evaluated each unit’s age, condition, and its ability to adequately heat or cool the spaces it serves. A multi-year program has been implemented to provide for the replacement of the units that have been identified as needing replacement. The project costs include modifications to building walls to facilitate the removal of existing equipment and installation of the new units, upgraded electrical and temperature controls, and asbestos abatement.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

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 **\$10,000,000**

The final phase of 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 **\$2,500,000**

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

Electrical Substation Replacement **\$10,000,000**

This is a multi-year program to replace electrical substations which are at or very near end of life. This program will also improve redundancy.

Emergency Power Upgrades **\$2,500,000**

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.

Ground Power Substation Replacement **\$9,000,000**

This program is focused on updating and improving substations that serve airside operations such as jet bridges, and providing heating, cooling, and power for parked aircraft. These substations also provide power for charging electric ground service vehicles. This program will position MSP to be able to meet new demands for ground equipment, including an increase in electric vehicle charging.

Plumbing Infrastructure Upgrades **\$700,000**

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.

Terminal Building Remediation Program **\$3,000,000**

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.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

Terminal Miscellaneous Modifications **\$2,600,000**

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 2024.

13 – Energy Management Center

EMC Life Safety Infrastructure Program **\$1,900,000**

This program will replace life safety equipment and devices associated with the heating, ventilation, and air conditioning system throughout MSP campus. Equipment includes gas detection sensors and life safety dampers. Additionally, all new equipment and devices will connect to IMACS for monitoring and control.

EMC Plant Upgrades (T1 & T2) **\$2,100,000**

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 Electrical Construction **\$2,500,000**

This program provides for the removal and replacement of airfield lighting and signage with LED technology, and lighting control upgrades.

Airside Roadway Pavement Restoration **\$1,200,000**

This is an ongoing program to rehabilitate roadways on the airfield 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 areas most in need of repair on an annual basis.

Miscellaneous Airfield Construction **\$3,500,000**

This program supports Part 139 Airport Certification through grading and drainage improvements within runway safety areas, airfield pavement marking modifications, and other miscellaneous airside projects that are too small to accomplish independently or arise unexpectedly.

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.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

26 – Terminal Roads/Landside

Tunnel/Bridge Inspections **\$120,000**

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.

31 – Parking

Parking Structure Rehabilitation **\$5,500,000**

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.

Terminal 2 Parking Facility Watermain Improvements **\$670,000**

This project will provide for the replacement of three watermain valves that serve the snow-melter system in the Purple Parking Ramp and to provide for lowering and repair of a watermain segment at the northeast corner of the Orange Parking Ramp that is prone to freezing.

39 – Public Areas/Roads

Concrete Joint Repair **\$1,000,000**

This project will complete landside pavement joint repair on MSP campus roadways as a preventative maintenance activity to prolong the existing pavement from reconstruction.

Landside Pavement Rehabilitation **\$500,000**

This is an ongoing program of preventative maintenance activities such as crack sealing, surface treatments, and resurfacing on roadways located outside of the Air Operations Area (AOA). This program effectively slows deterioration rates, extends service life and delays need for total reconstruction of bituminous and concrete pavements. Inspection of pavements and appurtenances determines what areas are to be prioritized for rehabilitation under each year’s project.

Landside Utility Rehabilitation **\$750,000**

Each year there are numerous landside utility projects that are beyond the resources of MAC’s staff and operating budget to accomplish. These projects are prioritized annually and completed with either a series of contracts or purchase orders. Electric power, sanitary sewer, storm sewer and watermain improvements will be addressed with this program. Also, a study will be conducted as part of the first year’s project to identify future potential projects. The study will be updated annually reflect current priorities.

Roadway Fixture Refurbishment **\$150,000**

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

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

46 – Hangars and Other Buildings

Campus Building Rehab Program **\$1,500,000**

Continual maintenance of MAC non-terminal buildings is imperative in providing a stable infrastructure and meeting the MAC's sustainability goals. Age and weather contribute to building deterioration, mold and other health issues. Building envelope issues include curtain wall systems, glazing, sealant repair/replacement, louver repair/replacement, metal panel replacement and/or painting/tuck-pointing, structural repair and insulation systems. This program will also include repair/replacement related to interior issues. This is part of an on-going program to maintain MAC buildings as assets.

Campus Parking Lot Reconstruction **\$3,075,000**

This is an ongoing program of preventative maintenance activities such as crack sealing, surface treatments and resurfacing of parking lots. This program effectively slows, deterioration rates, extends service life and delays need for total reconstruction of parking lot pavements is required. Inspection of pavements and appurtenances determines what areas are to be prioritized for rehabilitation under each year's project. The 2024 project is planned to reconstruct the pavement around the MAC Field Maintenance facility.

MSP Campus Building Roof Replacement **\$6,100,000**

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.

56 – Trades/Maintenance Buildings

Sump Pump Controls **\$4,000,000**

This project will rehabilitate sump pumps older than five years across the campus and provide a new automation system at each location. Additionally, each sump pump will connect to IMACS for remote monitoring and control. This will help MAC Plumbing understand when there is a problem by receiving an alarm within their plumbing shop.

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 2024 Proposed Projects

MSP TENANT PROJECTS

MSP Tenant projects include those that enhance or expand tenant or leasehold facilities that MAC supports, with the tenants reimbursing the costs to MAC for work within leasehold spaces.

10-Terminal 1

Concessions Upgrades/Revenue Development and Strategic Partnerships **\$220,000**

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. The budget will also provide leasehold improvements to the strategic partnerships activation sites in order to prepare space for the partners' construction.

Concourse and Gatehold Modernization **\$85,600,000**

This is the second phase of the Concourse and Gatehold Modernization program and will complete work in Concourse C. Through a reimbursable agreement, Delta Air Lines will complete MAC-funded work including ceiling and lighting improvements, window tint, wainscoting, column wraps (excluding branding), paint (excluding branding), wayfinding information displays ("WIDS"), and flooring in the public area concourse corridors (including terrazzo, tile, and carpet where applicable). The program budget will also support MAC consultant fees for design collaboration and project oversight.

Terminal 1 Pre-conditioned Air (PCA) **\$2,500,000**

This program will provide and/or replace PCA units serving passenger boarding bridges to eliminate the use of idling airplane engines to heat and cool the ambient air. This program will reduce emissions on the campus.

36-Terminal 2

Terminal 2 Concessions Redevelopment **\$2,000,000**

This project will support concessions spaces at the central portion of Terminal 2 and be coordinated with lease rebidding.

Terminal 2 Multipurpose Facility (study) **\$300,000**

This project will study the development of a multipurpose facility that would include a day care facility to be used by airport employees with children and contractor meeting space, with a goal to remove the temporary structures adjacent to the T2 parking structure.

RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS

Reliever Airport Long Term Comp Plan projects include projects that enhance or expand the airport facilities in order to meet existing or forecasted operational needs.

81 – St. Paul

STP Airport Layout Plan **\$500,000**

The new ALP will show current conditions and any development proposed in the Long-Term Comprehensive Plan (LTCP). A portion of the budget will be used to acquire new AGIS base mapping to create a new Airport Layout Plan (ALP) set that complies with current FAA guidelines and criteria.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

STP Long Term Comprehensive Plan **\$800,000**

This project will review current airport facilities, identify service gaps, and better facilitate the safe movement of aircraft at St. Paul Downtown Airport, which is part of the MAC's system of reliever airports designated by the FAA to reduce congestion at the Minneapolis-St. Paul International Airport and to provide improved general aviation facilities in the overall community.

84 – Flying Cloud

FCM Purchase and Demolition of Hangars **\$1,300,000**

This will purchase and demo all or portions of five hangars within the object free area of Flying Cloud's Taxiway Alpha.

85 – Crystal

MIC Airport Layout Plan **\$100,000**

An as-built ALP will be completed to reflect the closure of Runway 14R-32L and the extension of existing Runway 14-32.

RELIEVER AIRPORTS MAINTENANCE/FACILITY UPGRADE PROJECTS

Reliever Airport Maintenance / Facility Upgrade projects include improvements to buildings, systems, pavements and other infrastructure across the Reliever Airport system on a one-time or short-term basis.

80 – Reliever Airports

Relievers Security Fencing, Gates, and Lighting **\$200,000**

This program will address ongoing needs for repairs and modifications to the Reliever Airports' perimeter chain link fencing, gate vehicle access points, and lighting to enhance safety and security in landside areas.

Relievers 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 2024.

Relievers 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 2024.

81 – St. Paul

STP Customs and Border Protection General Aviation Facility **\$4,500,000**

This project will construct a new CBP facility to ensure the longevity of these services as Holman Field.

STP Intelligent Monitoring and Control System (IMACS) Expansion **\$2,250,000**

This project will expand the IMACS network to all Facilities and Trades equipment to allow monitoring and control.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

STP LED Edge Lighting Upgrades **\$1,500,000**

This project will replace taxiway edge lighting and signage with LED lighting.

STP Runway 14-32 Crack Sealing **\$250,000**

This project will repair cracks on to prolong usability until a pavement rehabilitation is completed.

STP Storm Sewer Improvements **\$1,500,000**

This project includes improvements to the existing storm sewer systems in the West Building Area and infield area between Taxiways Delta and Lima, to improve storm water removal and to address soil and pavement distress in the vicinity of deficient storm sewer structures. The project will also evaluate the potential for improvements to the flood pump stations to maximize efficient removal of storm water from the airfield during flood events.

82 – Lake Elmo

21D Materials Storage Building **\$500,000**

This project includes the construction of a MAC storage building for the containment of airfield maintenance products such as salt, sand, and topsoil to comply with MPCA requirements.

21D North Building Area Pavement Rehabilitation **\$900,000**

This is an ongoing program to rehabilitate aircraft operational areas (runways, taxiways, aprons, taxilanes) through bituminous overlays, seal coats, or in some instances, reconstruction. The project will restore the surface to a smooth, even condition and improve overall operating conditions. The pavement condition index report, an inspection of the pavement, and geotechnical exploration will be completed to determine the extent of the repairs. This project includes the taxilanes and airport entrance road in the northwest building area.

21D Runway 04-22 Pavement Rehabilitation **\$4,000,000**

This project includes reconstruction of the full length of existing Runway 4-22. The updated long term comprehensive plan for this airport proposes an extension to the crosswind runway at the end of Runway 22. Construction of the extension is included in this project. Installation of runway edge lighting is also included.

83 – Airlake

LVN Maintenance Building Renovation **\$1,250,000**

This project will remove and replace the office portion of the maintenance building at LVN while leaving the maintenance garage in place.

84 – Flying Cloud

FCM Access Roads and Tango Lane **\$600,000**

This project includes pavement rehabilitation of Airport Access Roads and Tango Lane in the north building area of the airport. Work may consist of milling, pavement repairs, bituminous pavement, pavement marking and miscellaneous items.

FCM Executive Aviation/MAC Maintenance Apron **\$700,000**

This will provide a mill and overlay of the MAC owned apron near the Executive Aviation facility. This project will also include pavement marking.

10.2 APPENDIX B – Descriptions for 2024 Proposed Projects

FCM Intelligent Monitoring and Control System (IMACS) **\$2,250,000**

This project will extend the IMACS network to Flying Cloud Airport where there is no connectivity at present. This system will allow remote monitoring and control of mechanical, electrical, and plumbing systems as well as facilities monitoring, IT monitoring, and data analysis.

FCM Runway 10R-28L Crack Sealing **\$200,000**

This project will repair cracks to prolong usability until pavement rehabilitation is completed in a future year.

FCM Spring Lane Extension and Taxilane Connector **\$600,000**

This project will extend Spring Lane Taxilane to the east and provide a connector to Taxiway B. The project is operationally necessary for the development of a site near the south building area.

FCM Underground Fuel Storage Tank Replacement **\$500,000**

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

85 – Crystal

MIC Underground Fuel Storage Tank Replacement **\$500,000**

This project will replace aging UST's that are owned and maintained by the MAC at the reliever airports. The tanks were installed in 1991 and have a life expectancy of 25-30 years.

86 – Anoka County - Blaine

ANE Airport Rd and GA Blvd Pavement Rehabilitation **\$700,000**

This project will restore the service roads on the west side of the airport, including Airport Road and General Aviation Blvd. The pavement has reached the end of its useful life and is in need of rehabilitation. Due to the overall length of the road, the project will be completed in three phases.

ANE Equipment Storage and Maintenance Building **\$1,200,000**

This project will construct a new equipment storage and maintenance building for the Anoka County-Blaine airport to replace airport staff's use of a leasable hangar to support this function.

ANE Underground Fuel Storage Tank Replacement **\$500,000**

This project will replace aging UST's that are owned and maintained by the MAC at the reliever airports. The tanks were installed in 1991 and have a life expectancy of 25-30 years.

ANE West Perimeter Road **\$1,800,000**

This project will construct a road to connect the south and north sides of the airport in a safe and efficient manner on the west side of the airport in response to concerns raised during Runway Safety Action Team (RSAT) reviews.

10.3 APPENDIX C – Draft Descriptions for 2025-2030 Projects that Meet Criteria Defined in Minnesota Statute Section 473.614

MSP LONG TERM COMPREHENSIVE PLAN PROJECTS

10 – Terminal 1

2027 D-Pod Outbound Baggage System **\$15,000,000**

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.

21 – Field and Runway

2026 Runway 30R Parallel Taxiway Construction **\$12,000,000**

This project involves the construction of a new taxiway on the north side of Runway 30R. The first phase is envisioned to include construction at the approach end of Runway 30R, with a 600-foot section of new taxiway and two new taxiway feeder connections. Future phases will extend the taxiway to connect with Taxiway G.

2027 Runway 30R Parallel Taxiway Construction **\$10,000,000**

Please see the 2026 description.

2028 Runway 30R Parallel Taxiway Construction **\$14,000,000**

Please see the 2026 description.

RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS

83 – Airlake

2025 Runway 12-30 Improvements **\$4,400,000**

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.