



Metropolitan Airports Commission

TO: Planning, Development and Environment Committee

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

SUBJECT: **2024-2030 Capital Improvement Program
Program Approval**

DATE: November 29, 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 was provided in September. The final version attached to this memo reflects review and reconciliation by MAC staff and stakeholders.

The seven-year CIP includes projects for both the Minneapolis-St. Paul International Airport (MSP) and the six airports in the Reliever Airport System. Most projects in the attached project listing focus on the rehabilitation of airport infrastructure, existing assets, and terminal systems to ensure that the airport safety, security, and operations are not compromised.

Fiscal Impact

No Impact Operating Budget CIP Other

The 2024-2026 CIP, with funding as shown in the memo from MAC Finance, totals \$2,031,907,800.00. The entire 2024-2030 CIP totals \$4,291,708,900.00. The projects shown in the years 2027-2030 are included for planning purposes, without request for authorization to incur expenses on those projects.

Action Requested

1. **Recommend that the full Commission adopt the 2024-2030 CIP and authorize staff to:**
 - a. **Prepare final 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 of the 2025 projects and to prepare plans and specifications for the 2025 projects;
 - c. Conduct further studies and develop “preliminary” plans and specifications for the 2026 projects;
 - d. Utilize consultants as necessary in accordance with MAC’s consultant use policies;
 - e. Prepare appropriate documents to apply for federal, state, and PFC funding;
 - f. Forward the Capital Improvement Program to the Metropolitan Council for their review; and
2. Authorize the Executive Director/CEO or his designee to execute the necessary documents.

Background

Each year, MAC staff prepares a seven-year CIP for review and approval by the full commission.

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

- (a) Listing of projects by category with proposed year and cost for each; and
- (b) Project narratives, cost data, and illustrations for the projects listed in 2024.

Prior Related Actions

- (a) On September 18, 2023, the full Commission accepted the preliminary 2024-2030 CIP for purposes of conducting the affected municipalities review and the Assessment of Environmental Effects (AOEE) process.
- (b) On October 23, 2023, the full Commission approved a listing of Construction Project Labor Agreements for the 2024 Capital Improvement Program.
- (c) On November 6, 2023, a Public Hearing regarding the 2024-2030 Capital Improvement Program Assessment of Environmental Effects was held.

Applicable Legal Authority

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

Analysis

Concurrent with the 2024-2030 Capital Improvement Program (CIP) public review process, staff has further reviewed the justification, costs, timing, Commission input, and proposed funding of the projects listed in the preliminary 2024-2030 CIP brought forward to the Commission in September. The final 2024-2030 CIP seven-year spreadsheet, modified from the preliminary version as a result of this review and reconciliation, and the revised 2024 project narratives and graphics are attached for Commission approval.

Planned at MSP are major investments in the second phase of the Safety and Security Center, the vertical construction portion of the Concourse G Infill at Pods 2 and 3, and an expansion at the north end of Terminal 2. These three projects are pursuing sustainable design and construction certification through the LEED® green building program.

There are also notable dollars associated with the final phase of enhancements to the Terminal 1 arrivals and departures levels (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. Origin and Destination (O&D) passengers now make up a growing majority of passengers using MSP.

In addition, the seven-year program includes needed pavement reconstruction and rehabilitation projects at the Reliever Airports, including the proposed runway changes at Airlake Airport as outlined in MAC's Long Term Comprehensive Plans for that facility.

Differences between this final program and the preliminary version from September are mainly due to design development and updated cost estimates that reflect construction industry trends. Timing and sequencing of several projects was adjusted to align with current FAA grant timelines. In addition, design fees to support the Terminal 2 South Expansion, which is a key project in the MSP Long Term Plan, are now included in the CIP.

Relative to the expenditure of funds, the Commission action request focuses on the first three years of the seven-year program; years 2027-2030 are provided as a glimpse into the future for planning purposes. The overall breakdown of CIP dollars in each project category for the 2024 projects and the 2024-2026 three-year funded projects follow in the Introduction section of the narrative attachment.

2024-2030 Capital Improvement Program - Final Draft for Commission Approval	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							
Concourse E and F Bridge Heating and Cooling System Replacement	\$5,000,000	\$1,800,000					
GTC Dual-temperature Pump Improvements	\$2,300,000						
Terminal 1 Boiler & Chiller Replacement & EMC Expansion		\$250,000		\$420,000,000			
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		\$12,000,000		\$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							\$40,000,000
Taxiway A Pavement Reconstruction			\$4,200,000				
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				
Terminal 2 Apron Reconstruction				\$6,500,000	\$8,000,000	\$8,000,000	
26 - Terminal Roads/Landside							
UPS Loop Pavement Reconstruction	\$2,000,000						
Variable Message Signs Replacement, Phase 3	\$2,500,000						
31 - Parking							
Parking Ramp Snow Melter Replacement/Upgrades	\$1,350,000	\$1,350,000	\$1,400,000	\$1,400,000	\$1,400,000		
Parking Revenue Control System			\$4,200,000				
36 - Terminal 2							
Terminal 2 Recarpeting Program		\$150,000					
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	\$17,700,000						
70 - General Office/Administration							
GO Building VAV Replacement and Upgrade		\$2,000,000					
MSP End of Life/Replacement Projects Subtotal	\$59,575,000	\$72,350,000	\$39,100,000	\$776,000,000	\$364,400,000	\$49,000,000	\$326,000,000

2024-2030 Capital Improvement Program - Final Draft for Commission Approval	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	\$2,200,000	\$12,800,000	\$14,000,000	\$13,000,000	\$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	\$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	\$7,910,000	\$18,650,000	\$27,650,000	\$21,750,000	\$21,250,000	\$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	\$285,000,000						
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		
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	\$240,000,000						
Terminal 2 H1-H2 Apron and Building Modifications	\$30,000,000						
Terminal 2 South Expansion Enabling Work		\$160,000,000					
MSP Long Term Comprehensive Plan Projects Subtotal	\$581,000,000	\$163,000,000	\$1,000,000	\$27,000,000	\$11,000,000	\$28,000,000	\$0

2024-2030 Capital Improvement Program - Final Draft for Commission Approval	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	\$860,000	\$610,000	\$1,610,000	\$610,000	\$610,000	\$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 Surface Reconstruction		\$43,400,000					
Lavatory Buildings Rehabilitation	\$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 Sand Dump Station		\$300,000					
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						
Wayfinding 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		\$800,000	\$3,400,000				
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	
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 & Lighting	\$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		
<i>MSP Maintenance/Facility Upgrade Projects continues on the next page</i>							

2024-2030 Capital Improvement Program - Final Draft for Commission Approval	2024	2025	2026	2027	2028	2029	2030
MSP Maintenance/Facility Upgrade Projects (continued)							
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				\$10,000,000			
Terminal 2 Landside Office Remodel		\$250,000					
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					
Terminal 2 MUFIDS/EVIDS Millwork Upgrades		\$350,000					
Terminal 2 Skyway to LRT Flooring Installation				\$1,000,000			
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			
Terminal 1 Inbound Roadway Median Improvements		\$3,300,000					
Tunnel Fan Replacement	\$1,700,000		\$6,800,000				
46 - Hangars and Other Buildings							
Campus Out Building Study		\$300,000					
MAC Storage Facility	\$34,000,000						
Safety and Security Center	\$165,000,000						
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	\$281,130,000	\$196,220,000	\$87,395,000	\$172,585,000	\$36,110,000	\$66,700,000	\$23,400,000

2024-2030 Capital Improvement Program - Final Draft for Commission Approval	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	\$2,500,000	\$5,100,000	\$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	\$2,500,000	\$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
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	\$5,900,000	\$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	\$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 Rehabilitation Program	\$1,500,000	\$1,500,000		\$1,500,000		\$1,500,000	
Campus Parking Lot Reconstructions	\$3,075,000				\$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	\$82,165,000	\$79,820,000	\$87,970,000	\$66,420,000	\$60,925,000	\$56,975,000	\$55,200,000

2024-2030 Capital Improvement Program - Final Draft for Commission Approval	2024	2025	2026	2027	2028	2029	2030
MSP Tenant Projects							
10 - Terminal 1							
Concessions Upgrades/Revenue Development and Strategic Partnerships	\$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
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 Obstruction Removal (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	\$2,200,000	\$6,100,000	\$800,000	\$2,300,000	\$2,600,000	\$800,000

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Reliever Airports Maintenance/Facility Upgrade Projects							
80 – Reliever Airports							
Reliever Airports Security Fencing, Gates & Lighting	\$300,000	\$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 Infrastructure Replacement		\$1,200,000					
STP Intelligent Monitoring and Control System (IMACS) Expansion				\$2,500,000			
STP LED Edge Lighting Upgrades	\$1,200,000						
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 Reconstruction	\$10,000,000						
STP Storm Sewer Improvements				\$2,000,000			
STP Taxiway B Rehabilitation		\$1,100,000					
STP Taxiway Lima Rehabilitation				\$200,000			
82 - Lake Elmo							
21D AWOS Replacement		\$200,000					
21D Intelligent Monitoring and Control System (IMACS)					\$3,800,000		
21D Equipment Storage Building	\$500,000						
21D North Building Area Pavement Rehabilitation		\$900,000					
21D North Service Roads Rehabilitation	\$700,000						
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)						\$1,300,000	
LVN LED Edge Lighting	\$200,000						
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 - Final Draft for Commission Approval	2024	2025	2026	2027	2028	2029	2030
Reliever Airports Maintenance/Facility Upgrade Projects (continued)							
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 Maintenance Apron	\$950,000						
FCM Gate Replacements		\$500,000					
FCM Infrastructure Replacement		\$1,750,000					
FCM Intelligent Monitoring and Control System (IMACS)				\$2,500,000			
FCM MAC Building Improvements			\$600,000				
FCM Northside Access Road from Bravo to November Lane		\$900,000					
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				\$700,000			
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)						\$1,300,000	
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 Reconstruction	\$2,100,000						
ANE Electrical Vault Improvements		\$750,000					
ANE Equipment Storage and Maintenance Building	\$5,000,000						
ANE Gate Controller Upgrades			\$400,000				
ANE Intelligent Monitoring and Control System (IMACS)					\$1,300,000		
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						
Reliever Airports Maintenance/Facility Upgrade Projects Subtotal	\$29,700,000	\$26,700,000	\$11,000,000	\$33,850,000	\$14,950,000	\$8,400,000	\$900,000
MSP Subtotal	\$1,103,400,000	\$606,764,000	\$243,343,800	\$1,063,989,600	\$496,926,500	\$214,675,000	\$419,610,000
Relievers Subtotal	\$32,400,000	\$28,900,000	\$17,100,000	\$34,650,000	\$17,250,000	\$11,000,000	\$1,700,000
Total	\$ 1,135,800,000	\$ 635,664,000	\$ 260,443,800	\$ 1,098,639,600	\$ 514,176,500	\$ 225,675,000	\$ 421,310,000



CIP Program Approval

Minneapolis-St. Paul International Airport (MSP)
and the six airports in the Reliever Airport System

INTRODUCTION 2

MSP END OF LIFE/REPLACEMENT PROJECTS 5

MSP IT PROJECTS 22

MSP LONG TERM COMPREHENSIVE PLAN PROJECTS 27

MSP MAINTENANCE/FACILITY UPGRADE PROJECTS 33

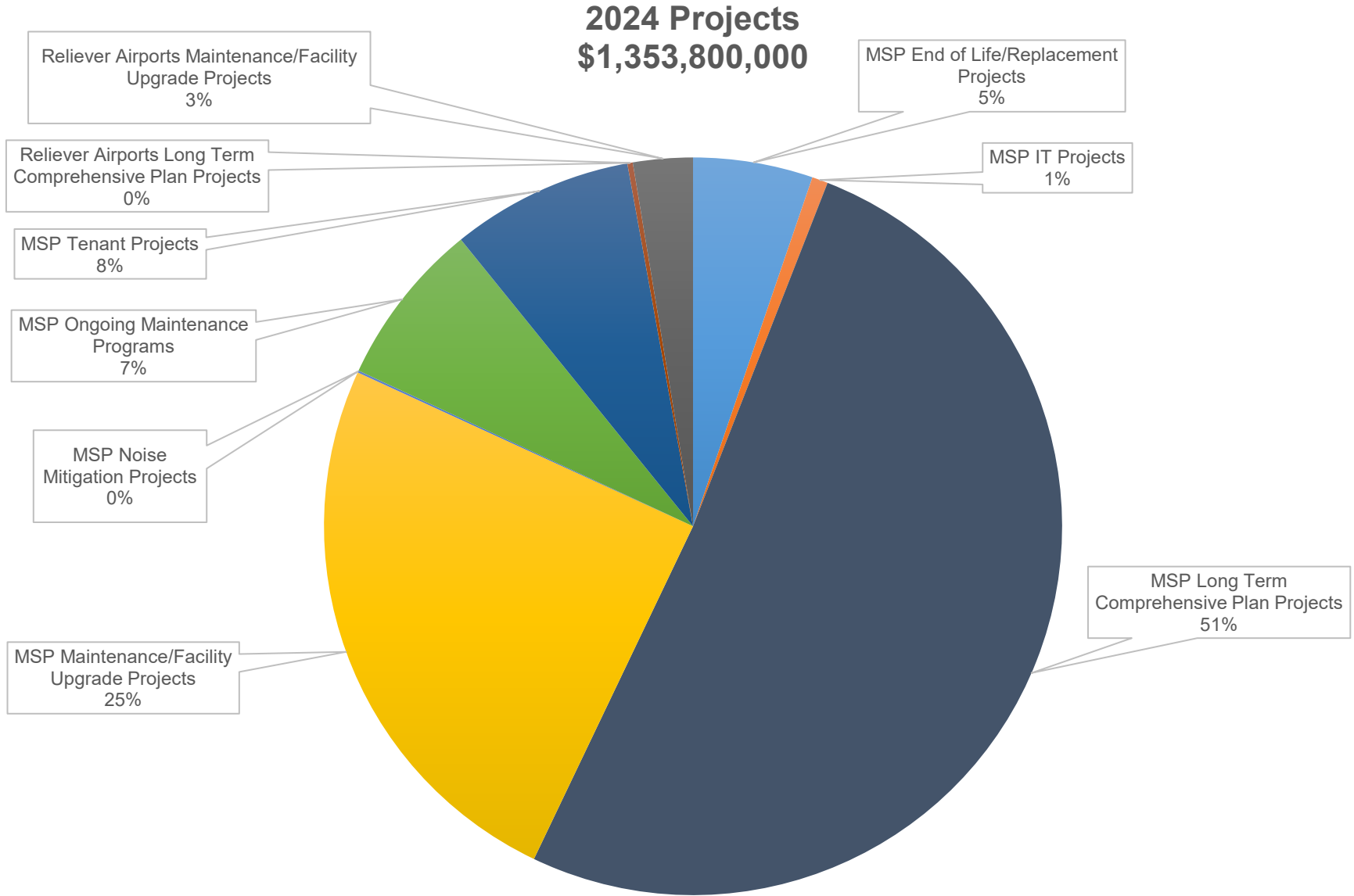
MSP NOISE MITIGATION PROJECTS 69

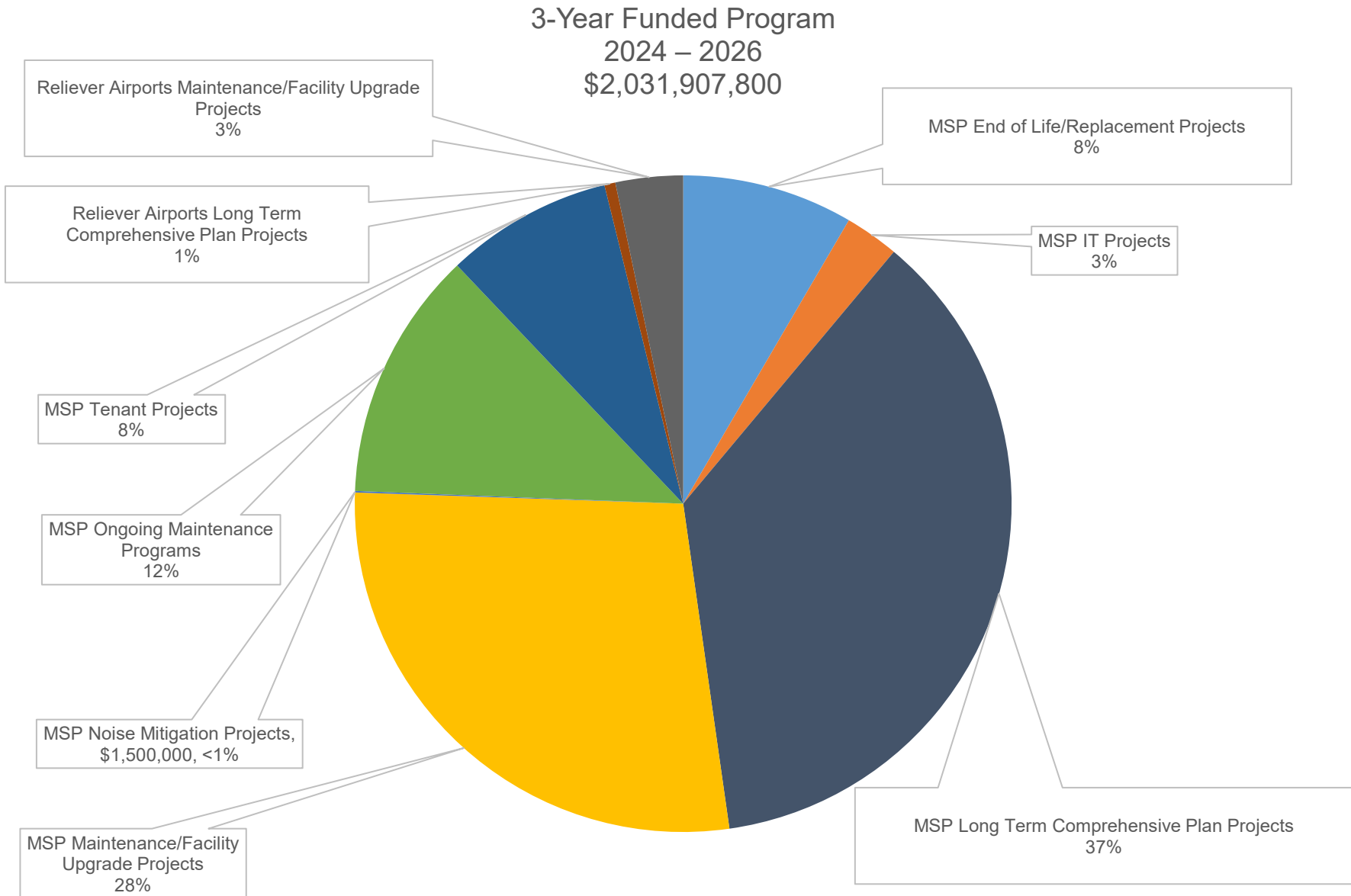
MSP ONGOING MAINTENANCE PROGRAMS 71

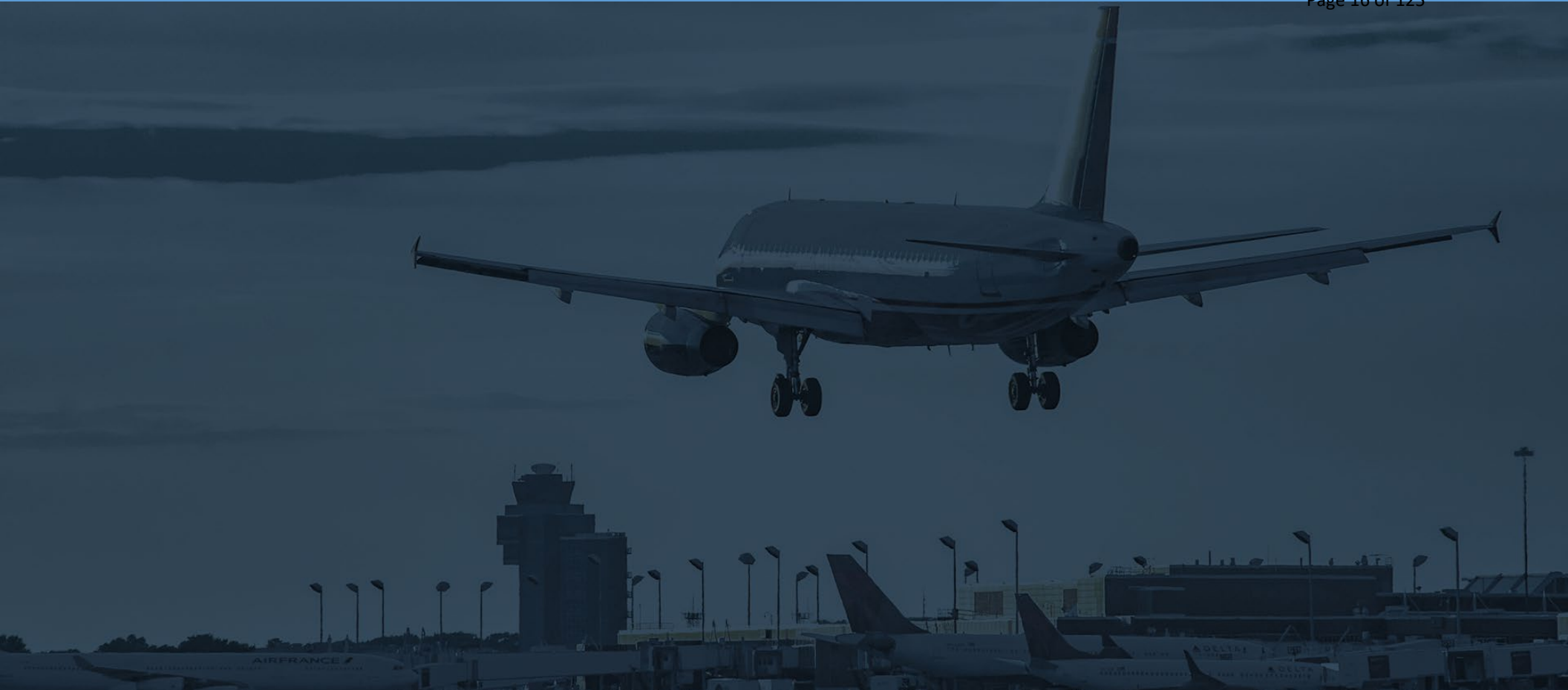
MSP TENANT PROJECTS 88

RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS 93

RELIEVER AIRPORTS MAINTENANCE/FACILITY UPGRADE PROJECTS 97



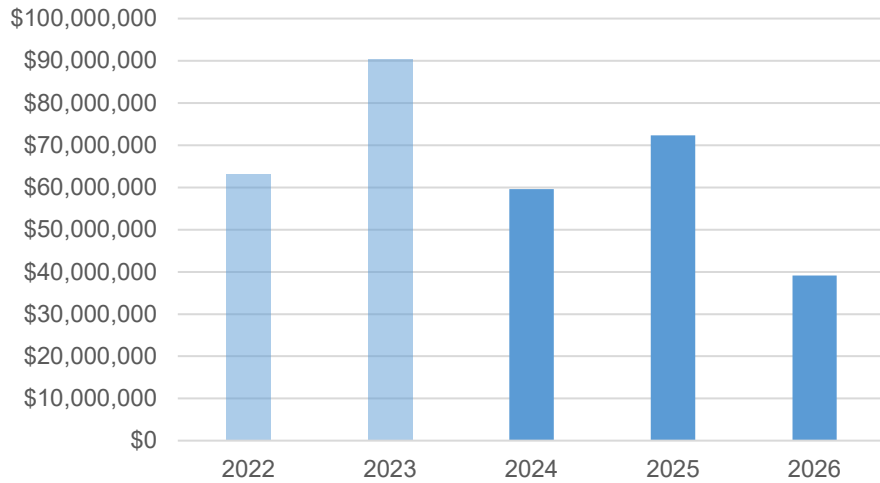




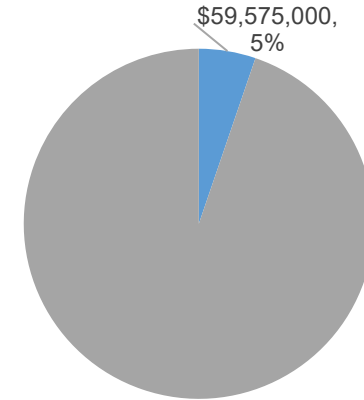
2024 MSP END OF LIFE/REPLACEMENT PROJECTS

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

MSP End of Life/Replacement Projects



2024 MSP End of Life/Replacement Projects

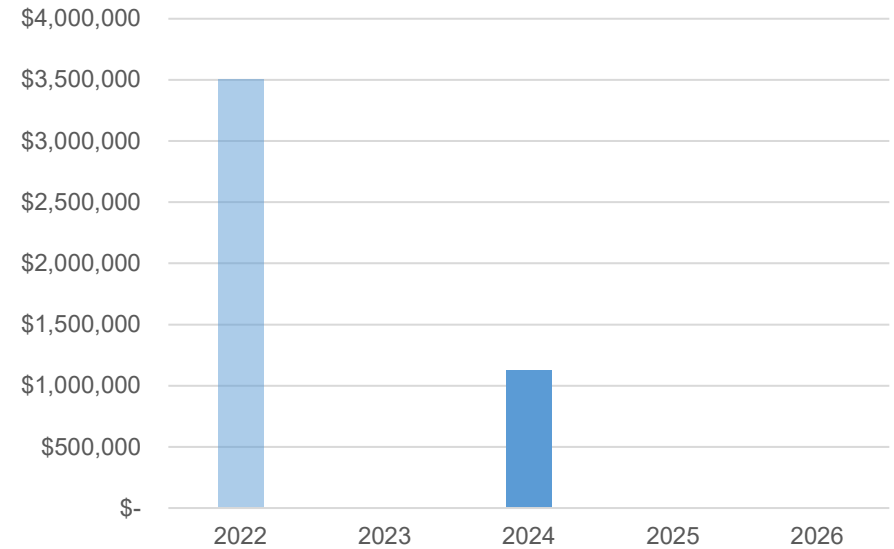
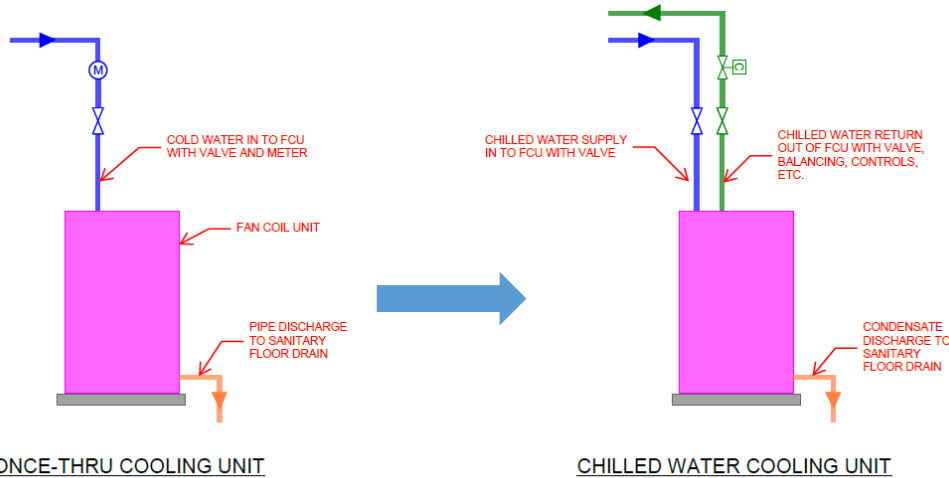
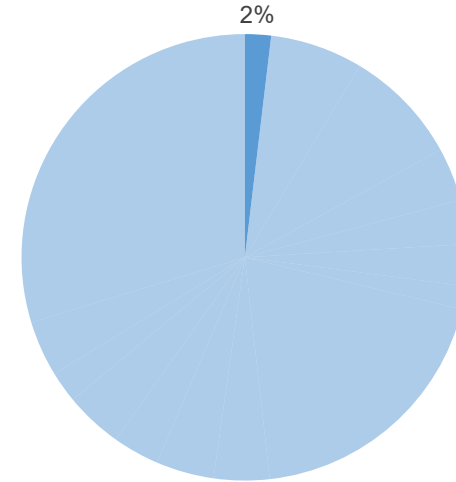


10 – TERMINAL 1

\$1,125,000

COOLING UNIT REPLACEMENT

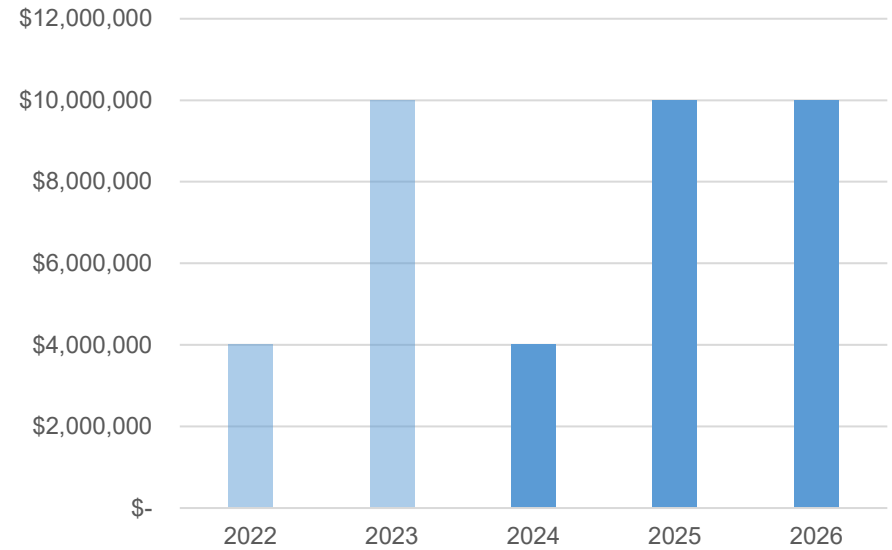
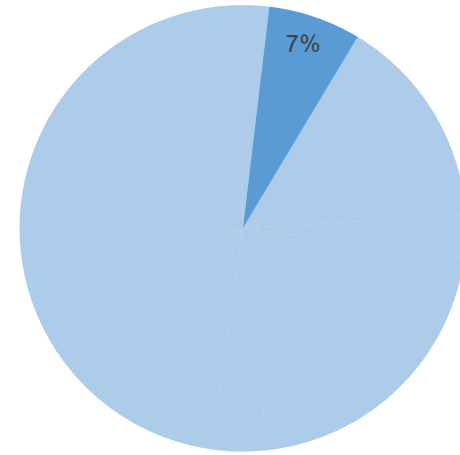
This project will replace the remaining once through cooling units across Terminal 1. There are twelve units included for replacement with either a chilled water unit or a DX unit depending on the area it serves. The new units will connect to IMACS for monitoring and control.



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.

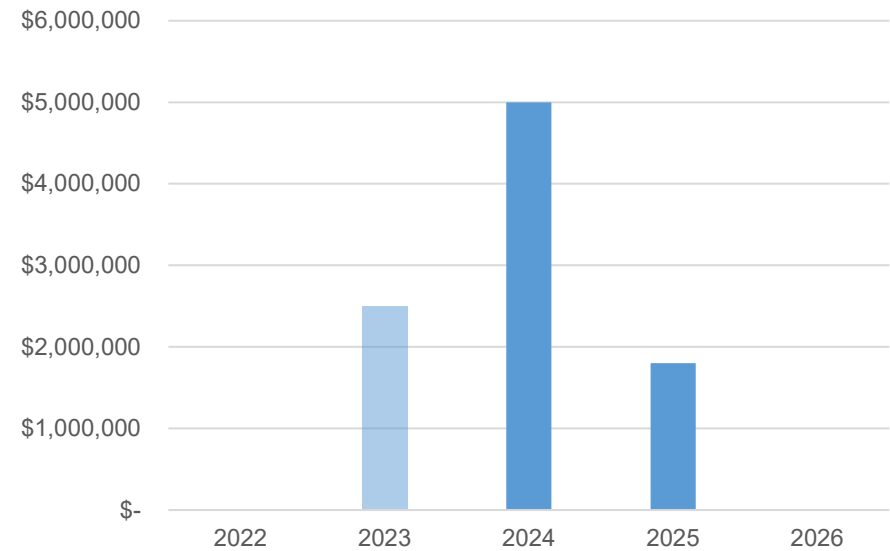
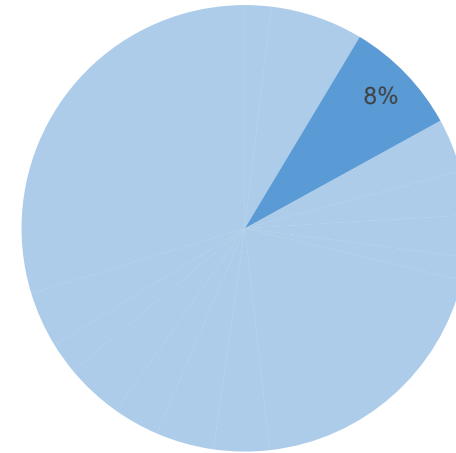


13 – ENERGY MANAGEMENT CENTER

\$5,000,000

CONCOURSE E AND F BRIDGE HEATING AND COOLING SYSTEM REPLACEMENT

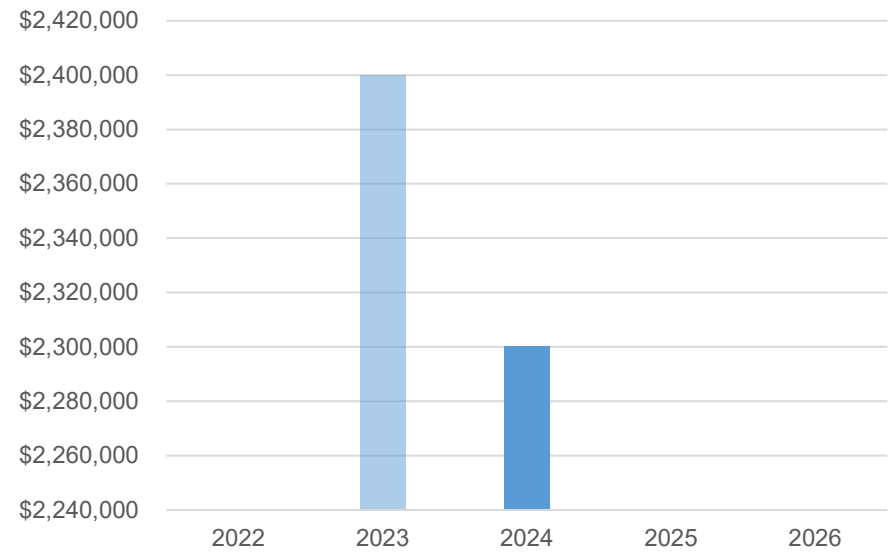
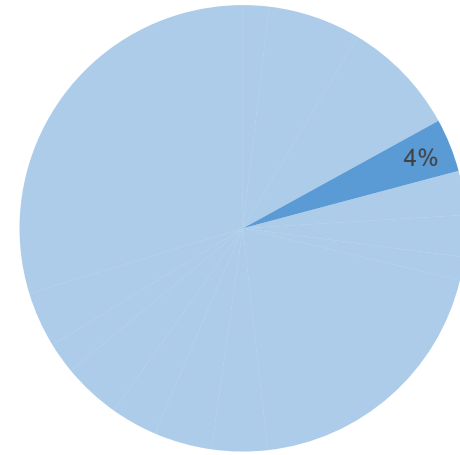
This is the second of three phases of work to replace and improve the heating and cooling systems on the bridges to Concourses E and F. In this phase, steam and condensate piping above grade through E Bridge connector, steam pressure reducing station in ground level, heat exchangers and water pumps in penthouse of E will be replaced. In the penthouse of the F Bridge, heat exchangers and water will be replaced.



GTC DUAL-TEMPERATURE PUMP IMPROVEMENTS

\$2,300,000

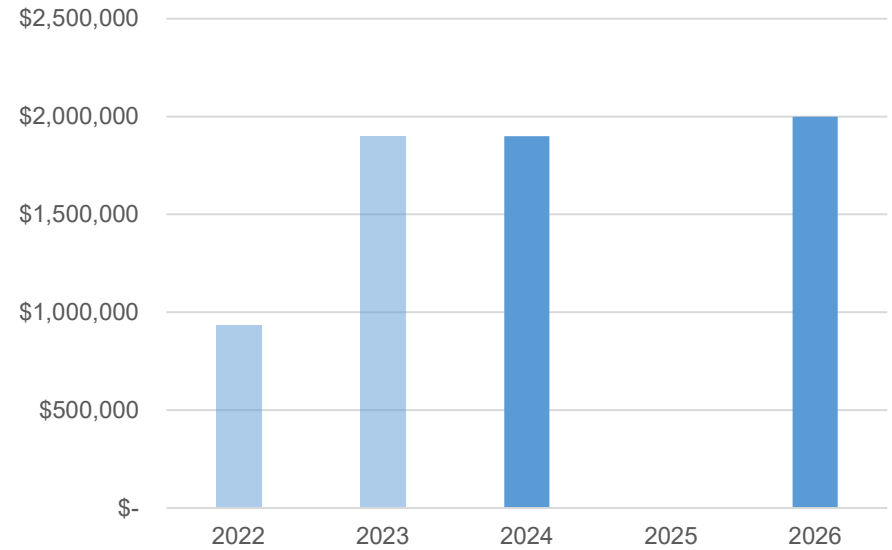
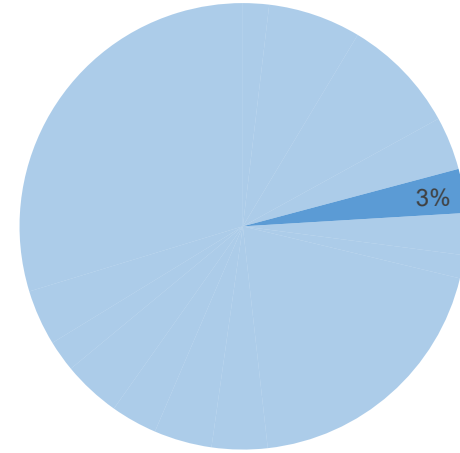
This project will replace end of life pumps and supporting infrastructure.



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.

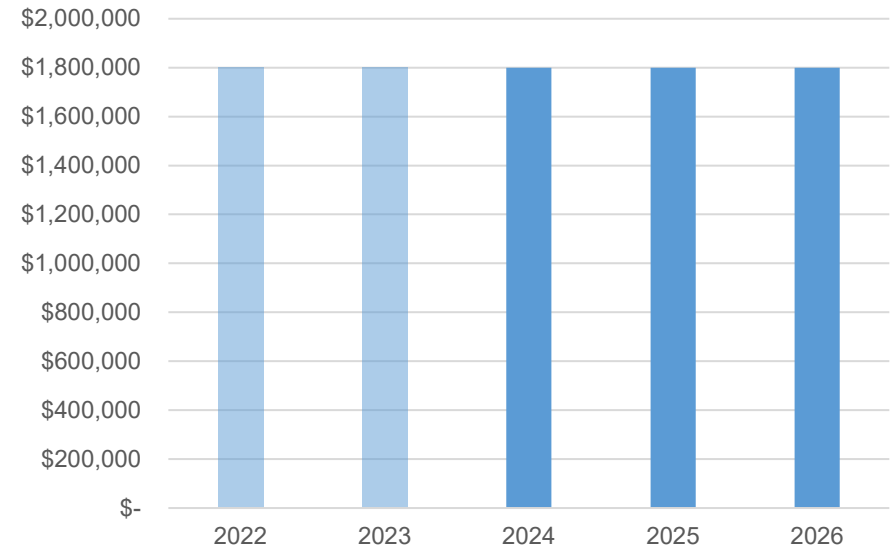
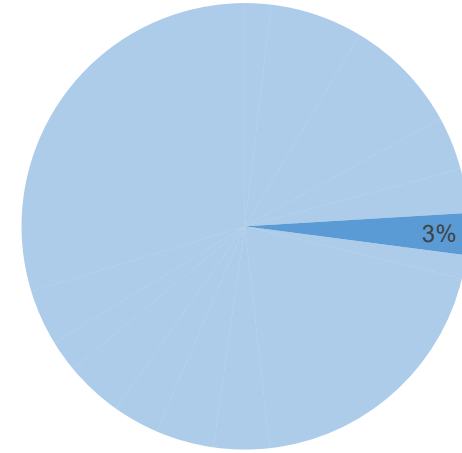


21 – FIELD AND RUNWAY

AIRFIELD SNOW MELTER REPLACEMENT/UPGRADES

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

\$1,800,000

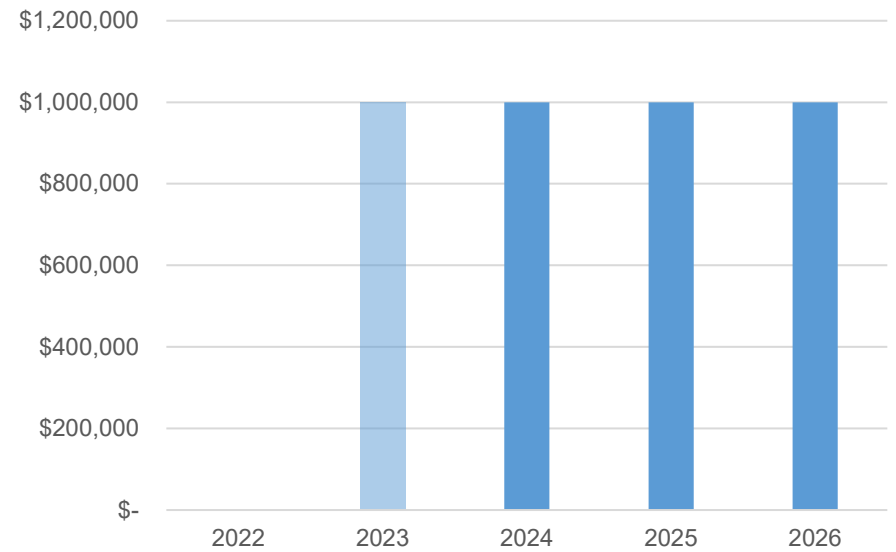
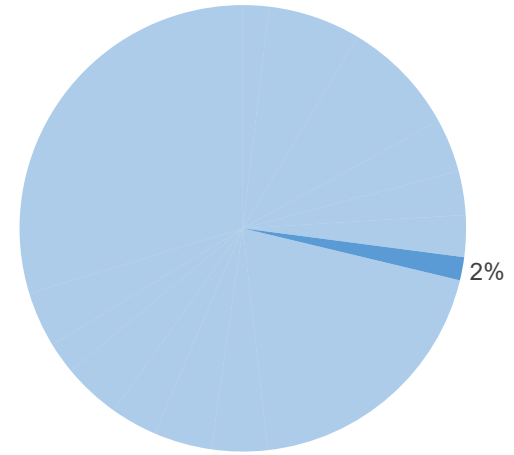


BITUMINOUS SHOULDER RECONSTRUCTION

This project is planned to reconstruct full depth bituminous shoulders along Runway 4-22. 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.



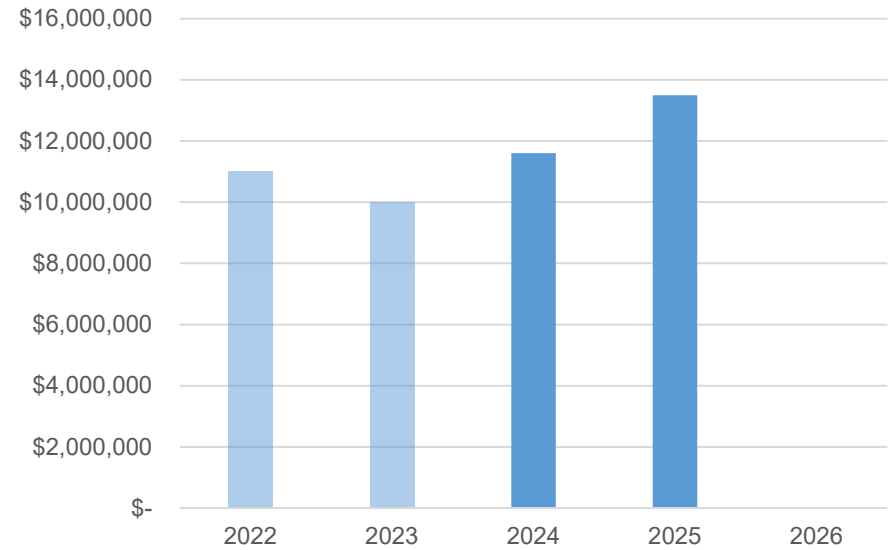
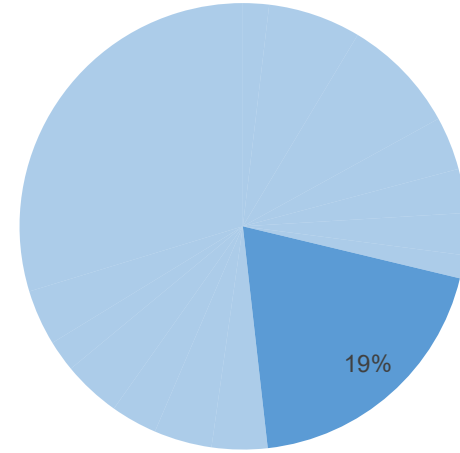
\$1,000,000



CONCOURSE G APRON PAVEMENT RECONSTRUCTION

\$11,600,000

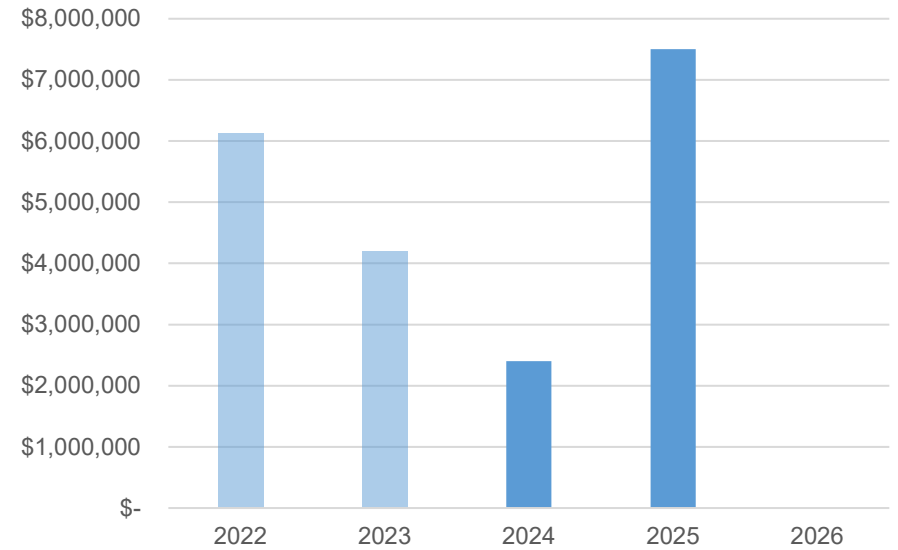
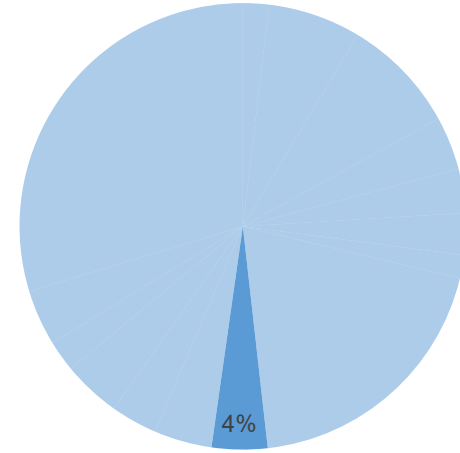
This project will reconstruct a portion of the apron area adjacent to Concourse G. Work will include removals, excavation, granular material, crushed aggregate base, concrete pavement, fuel pits, and pavement marking.



TAXIWAY B PAVEMENT RECONSTRUCTION

\$2,400,000

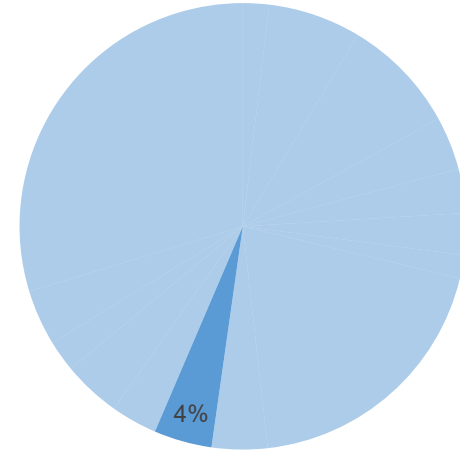
This project will reconstruct a portion of Taxiway B. Work will include removals, excavation, granular material, crushed aggregate base, concrete pavement, bituminous shoulders, pavement marking, and taxiway centerline lights.



TAXIWAY D PAVEMENT RECONSTRUCTION

\$2,500,000

This project includes the reconstruction of a 300' portion of Taxiway D between Runway 12R-30L and Taxiways W. Major items of work include pavement removal, excavation and backfill, concrete taxiway pavement, bituminous taxiway shoulder pavement, pavement markings, and airfield lighting and signing. This is an important component of the airfield network as a primary taxiway for Runway 4-22 and providing access from Runway 17-35 to Terminal 1. The existing pavement was constructed in 1972.

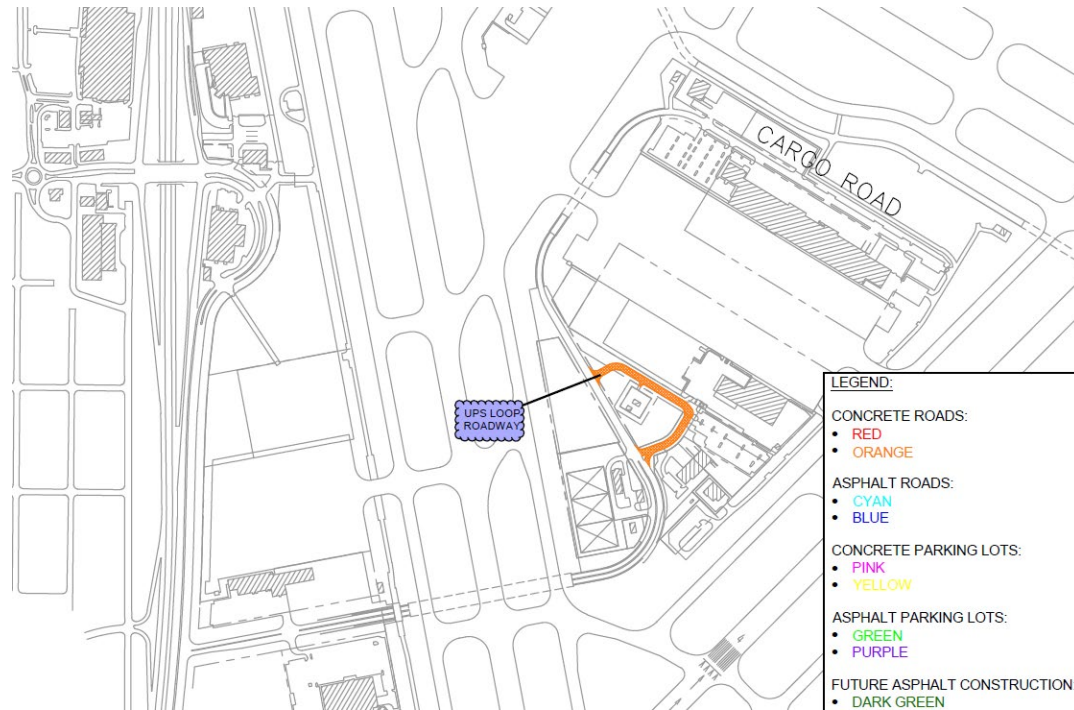
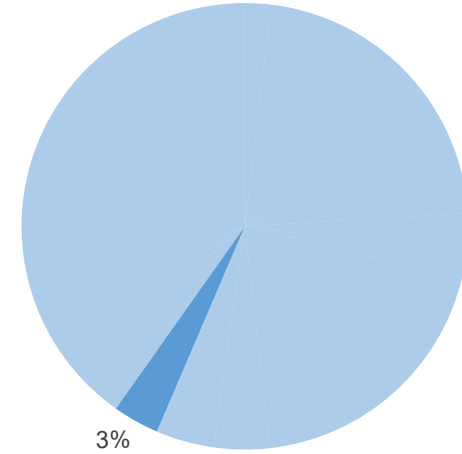


26 – TERMINAL ROADS/LANDSIDE

\$2,000,000

UPS LOOP PAVEMENT RECONSTRUCTION

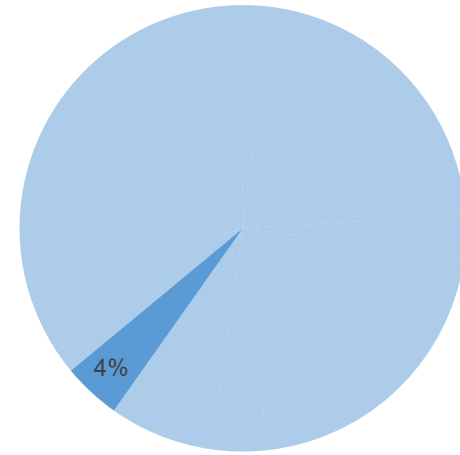
This project will reconstruct the existing UPS Loop. The existing concrete pavement has had periodic maintenance including repairs to the existing joints near the UPS gate entrance. The reconstruction work will include concrete pavement, lighting, electrical infrastructure, concrete walk, landscape and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



VARIABLE MESSAGE SIGNS REPLACEMENT, PHASE 3

\$2,500,000

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

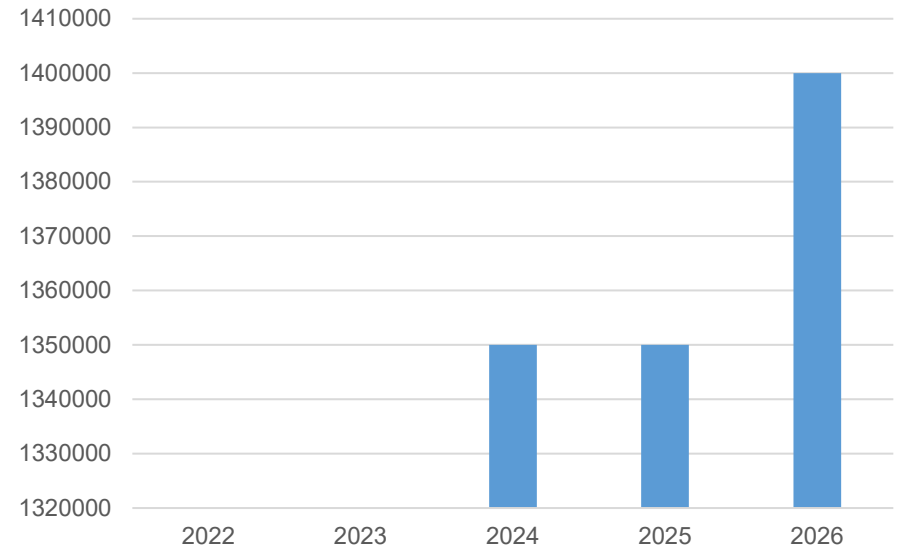
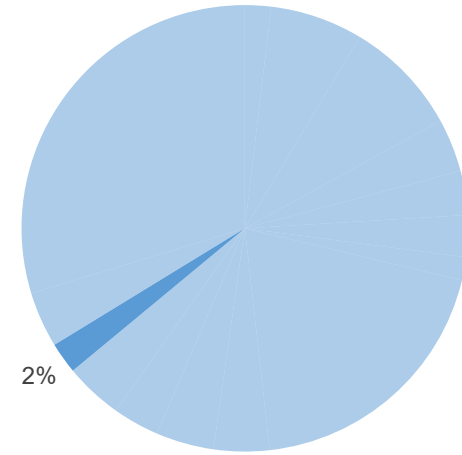


31 – PARKING

\$1,350,000

PARKING RAMP SNOW MELTER REPLACEMENT/UPGRADES

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

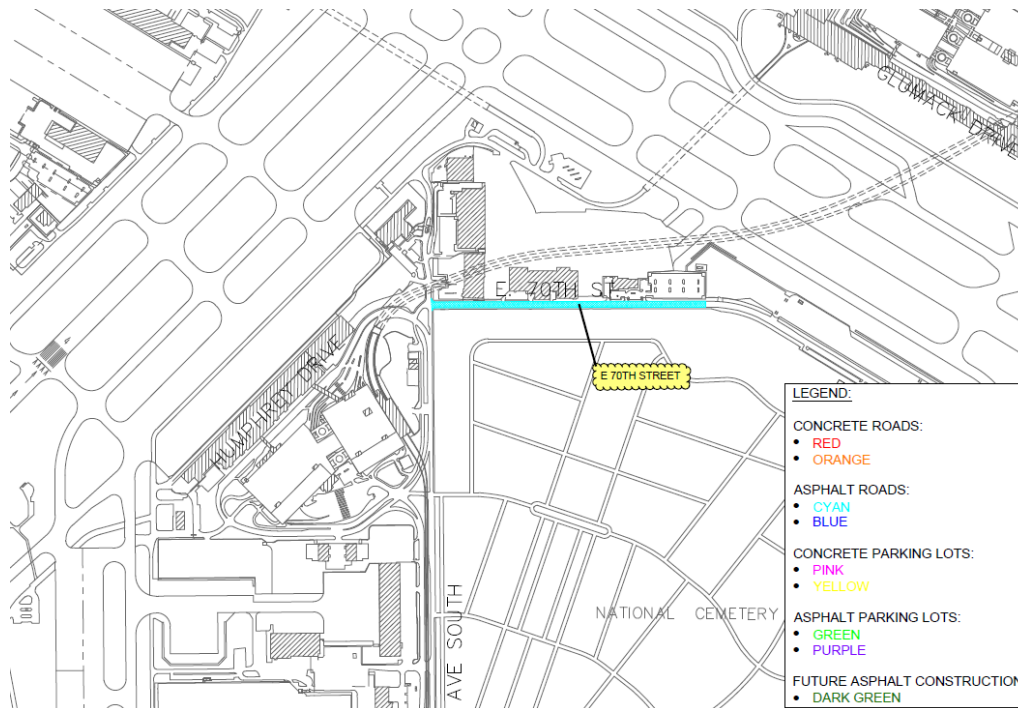
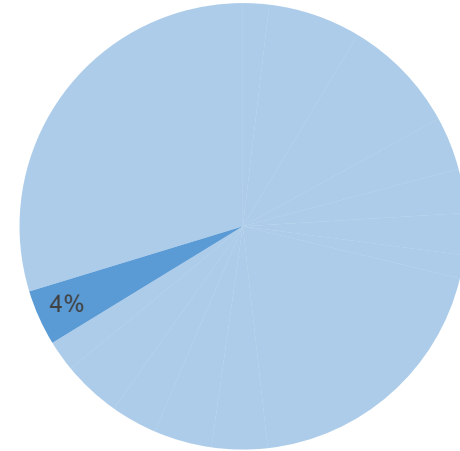


39 – PUBLIC AREAS/ROADS

\$2,400,000

EAST 70TH STREET RECONSTRUCTION

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

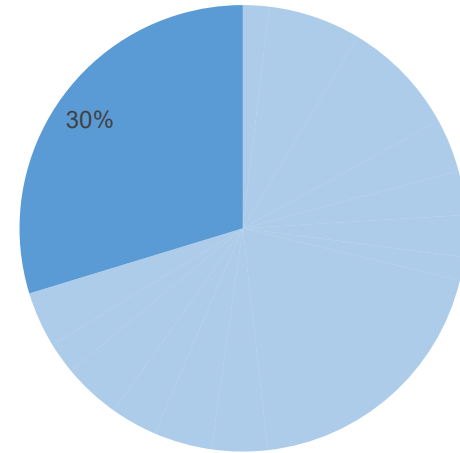


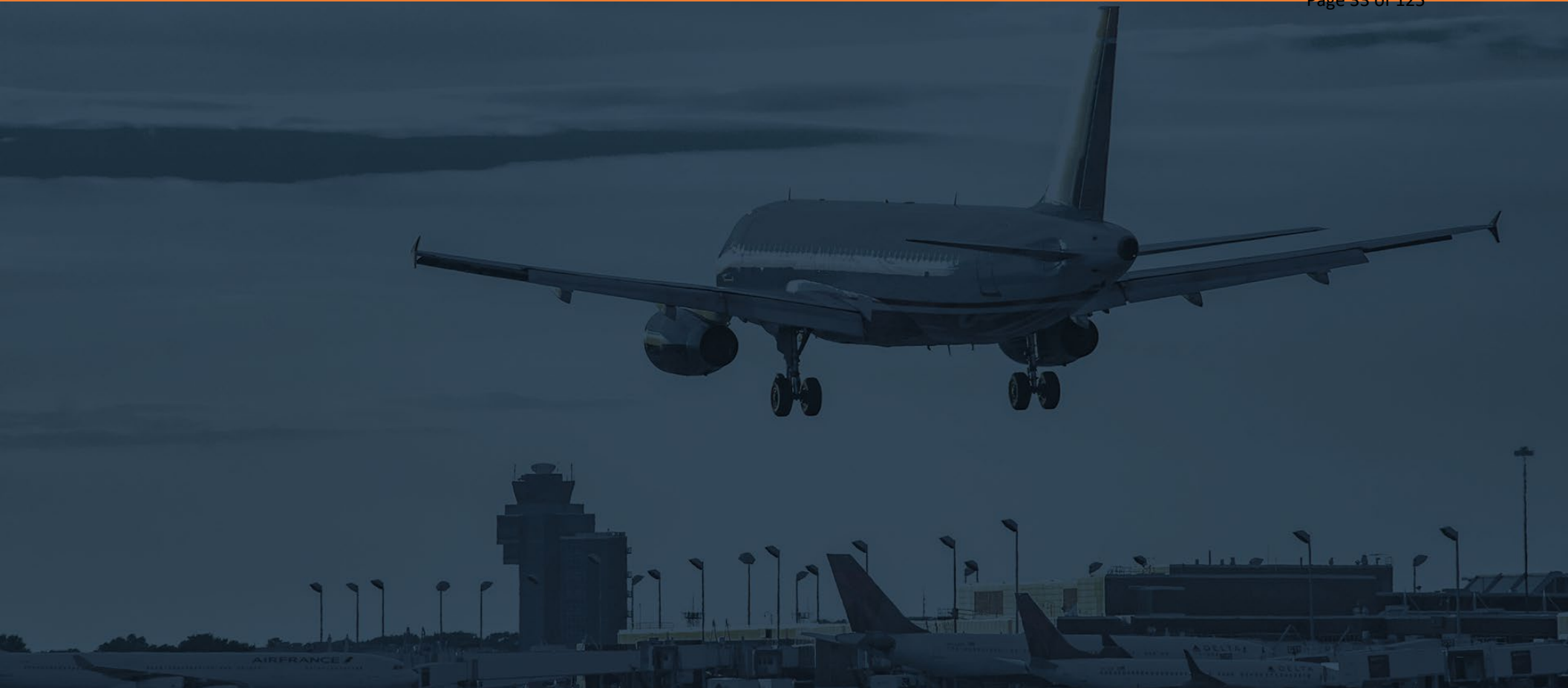
56 – TRADES/MAINTENANCE BUILDINGS

\$17,700,000

MSP LIQUID DEICER STORAGE FACILITY

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.

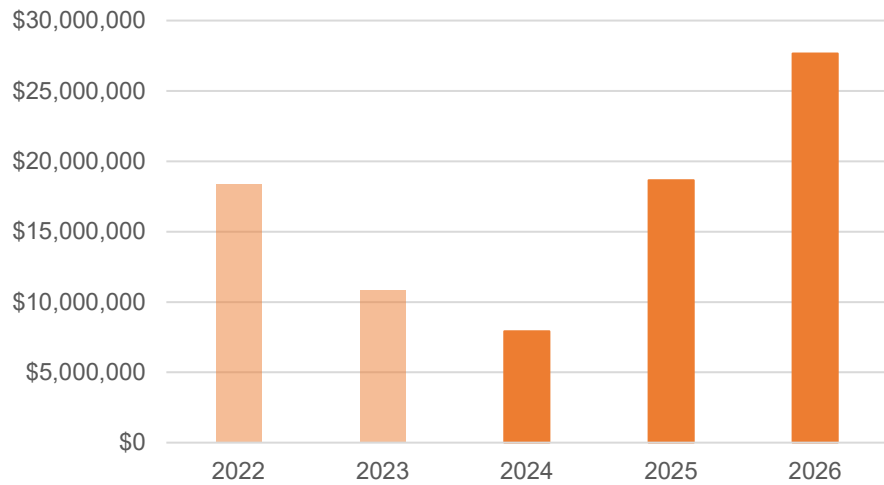




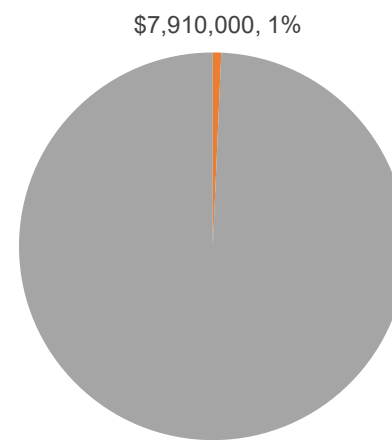
MSP IT PROJECTS

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

MSP IT Projects



2024 MSP IT Projects



10 – TERMINAL 1

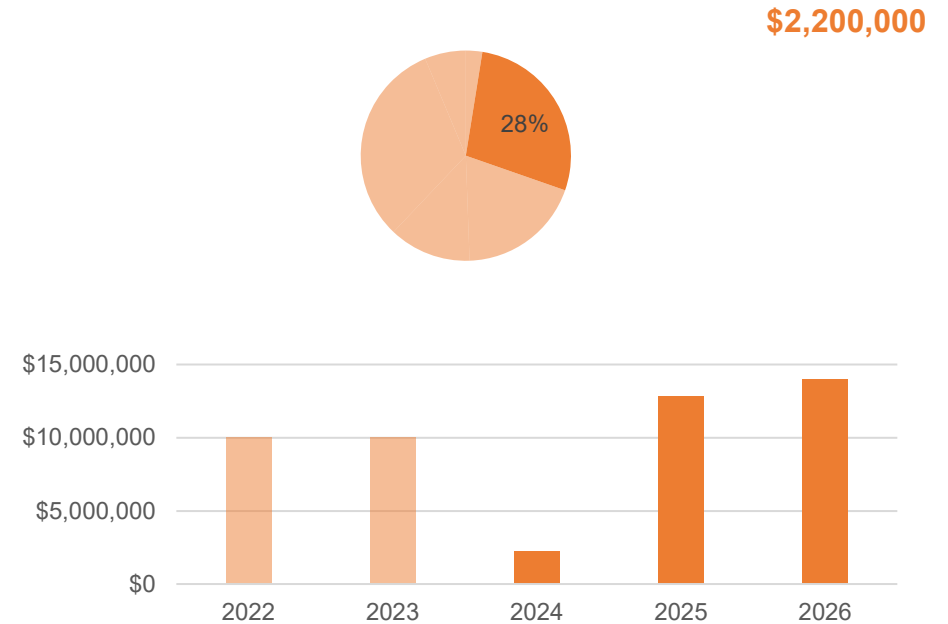
CONCOURSE C AND G DIGITAL DIRECTORY REPLACEMENT

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

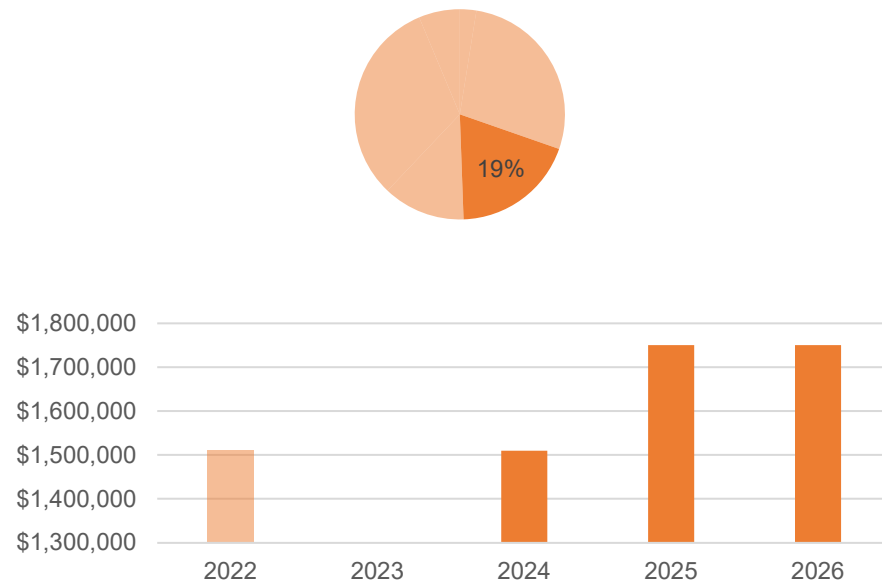
Each year, there are several IT projects that are beyond the resources of MAC's staff and operating budget to accomplish. These projects are prioritized and completed either as a series of contracts or as purchase orders. Work may include Fiber Optic Cable Upgrades, MACNet maintenance and upgrades, EVIDs/MUFIDs digital signs, Wireless System enhancements, and MAC Public Address System maintenance and upgrades. The list of potential projects will be finalized in early 2024.



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.

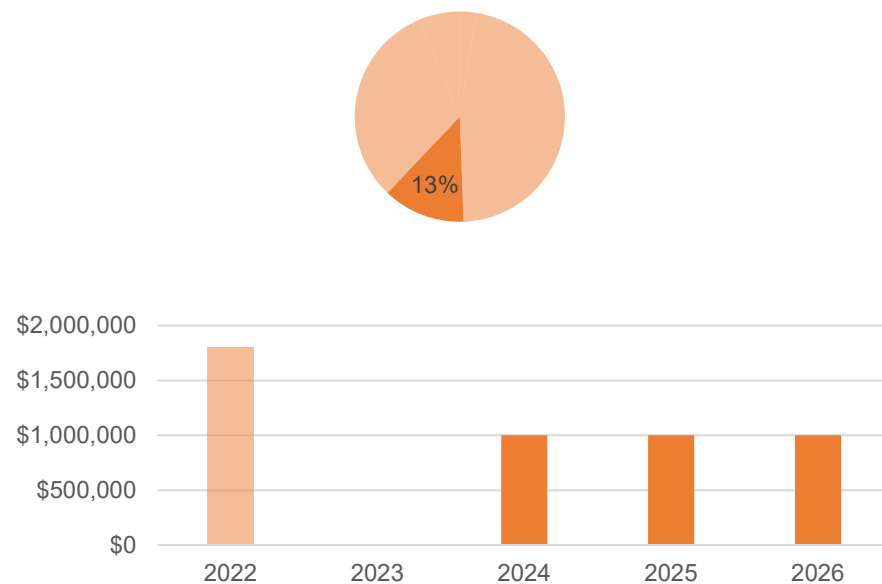


12 – FEDERAL INSPECTION STATION (FIS)

\$1,000,000

CUSTOMS AND BORDER PROTECTION INFRASTRUCTURE

MAC is responsible for supplying and maintaining Customs and Border Protection (CBP) infrastructure. In addition to the camera system, CBP has other infrastructure standards that need to be addressed. MAC and its project consultants will partner with CBP to create, schedule, and implement the new system equipment and operating requirements consistent with MAC and CBP Policies and Standards.

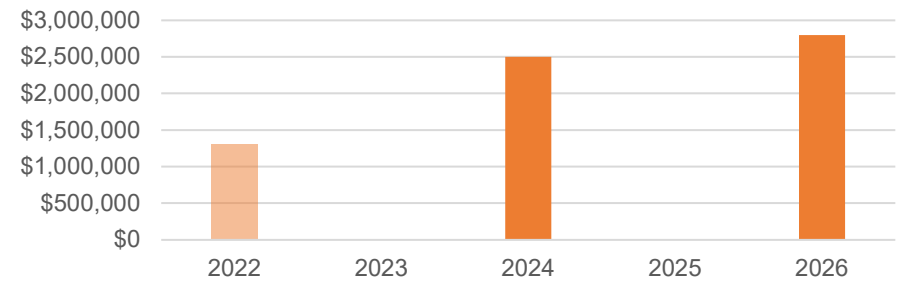
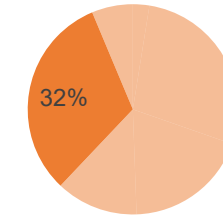


63 – POLICE

\$2,500,000

CARD ACCESS MODIFICATIONS

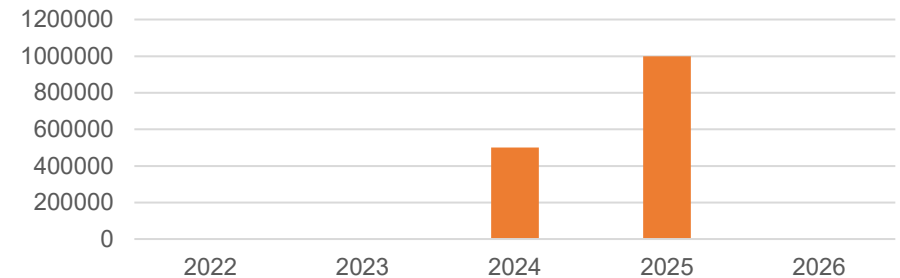
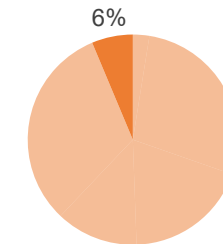
This is a multi-year program to refresh the inventory of card access security readers as they get to end of life, add outdoor biometric readers, add mobile card readers, add other readers as needed throughout the campus, and align card access control with other surveillance technology including IVISN.



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.

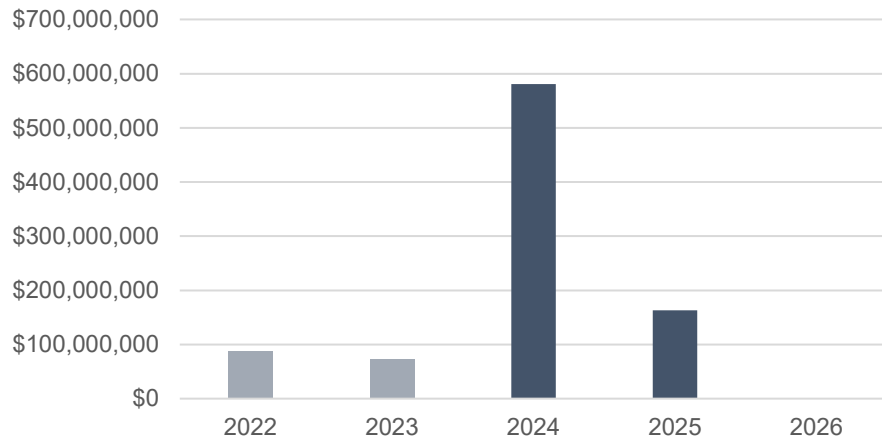




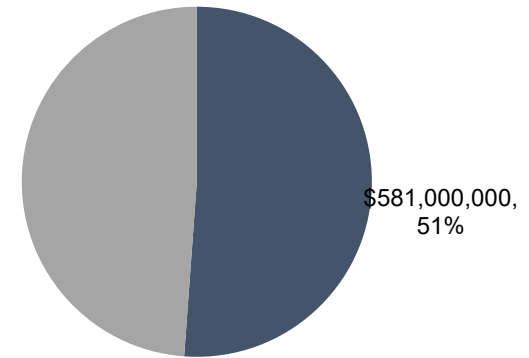
MSP LONG TERM COMPREHENSIVE PLAN PROJECTS

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

MSP Long Term Comprehensive Plan Projects



2024 MSP Long Term Comprehensive Plan Projects



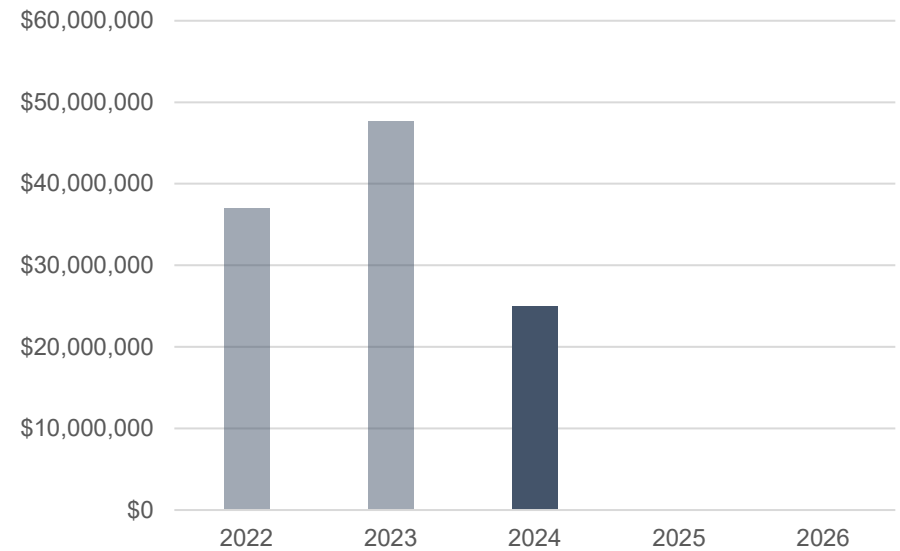
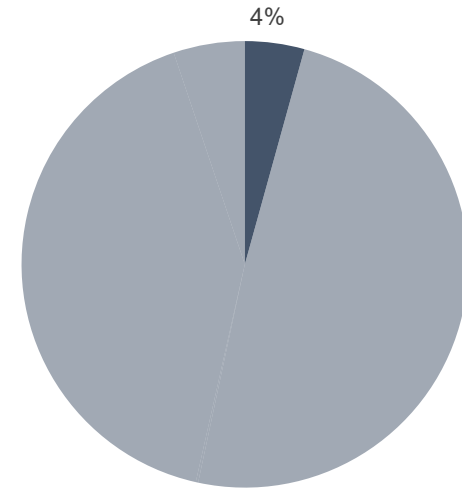
10 – TERMINAL 1

BAGGAGE CLAIM/TICKET LOBBY OPERATIONAL IMPROVEMENTS

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.

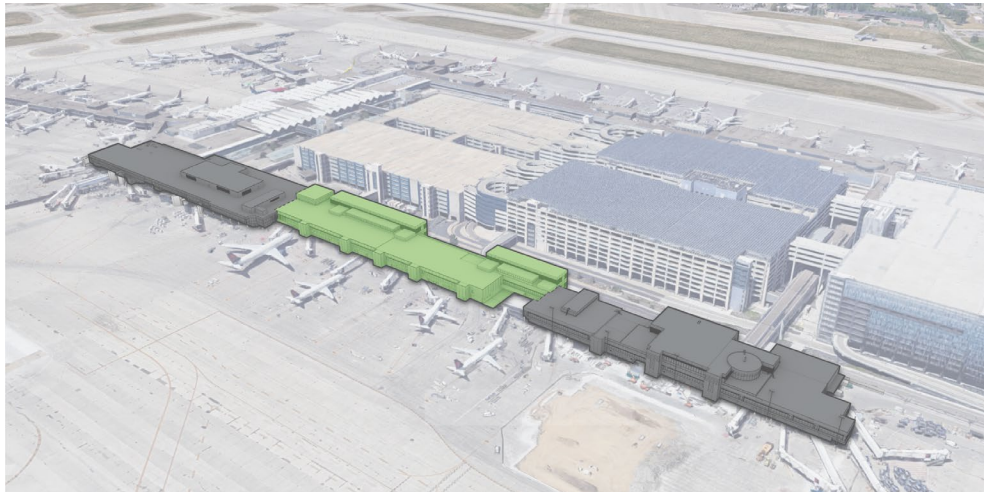


\$25,000,000

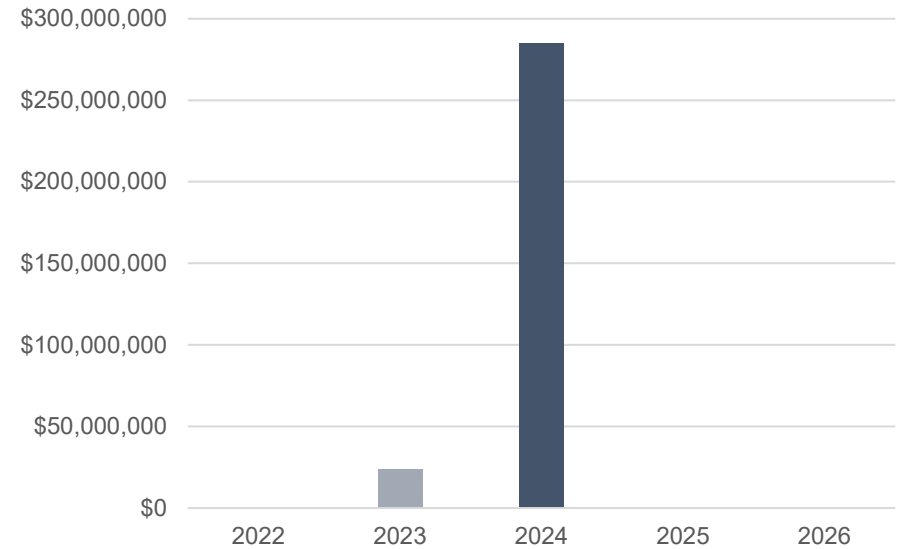
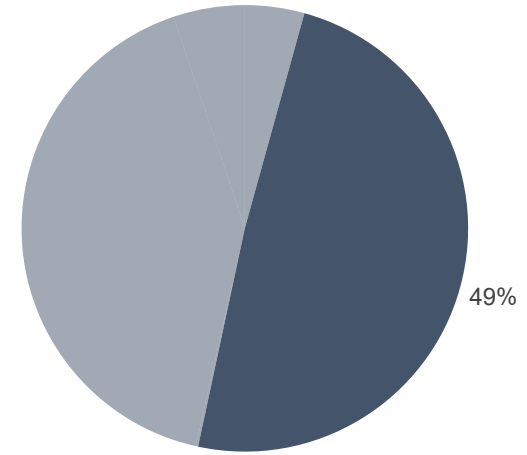


CONCOURSE G INFILL – POD 2-3

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.



\$285,000,000

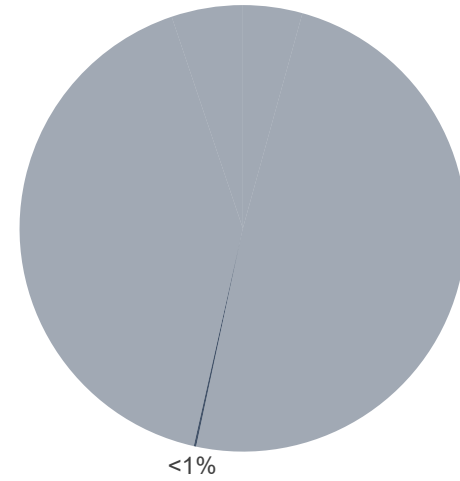


36 – TERMINAL 2

\$1,000,000

LONG TERM PLAN PROJECTS (FEES)

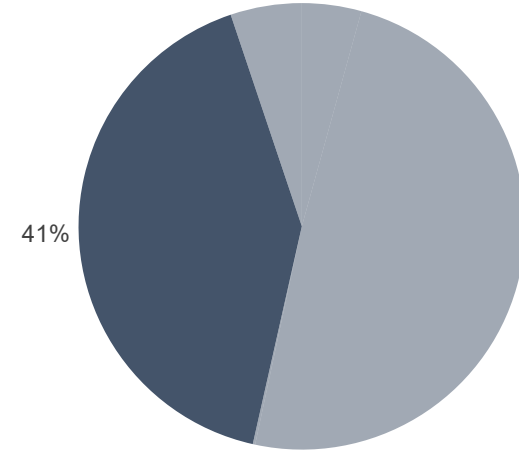
This budget will fund preliminary studies of a South expansion of Terminal 2 and its associated projects and phasing.

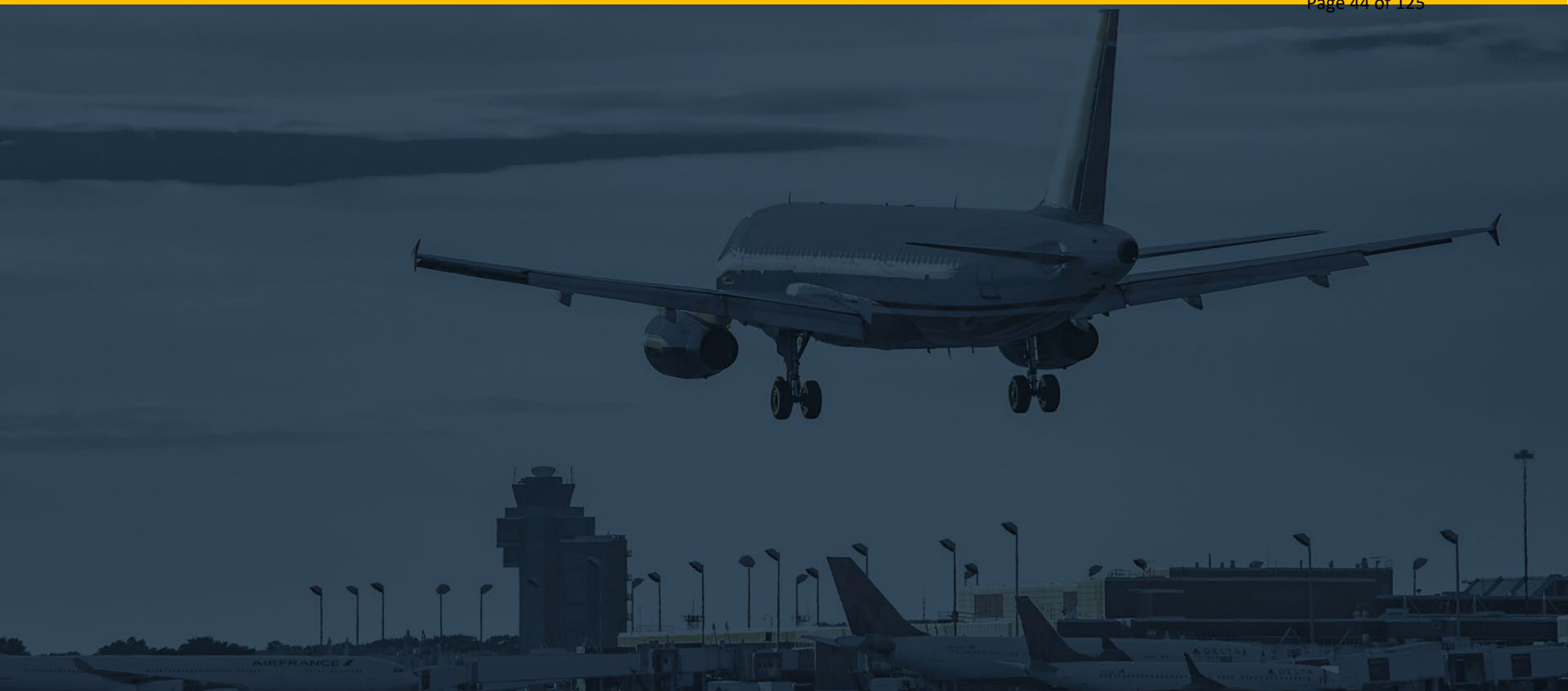


TERMINAL 2 NORTH GATE EXPANSION

\$240,000,000

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

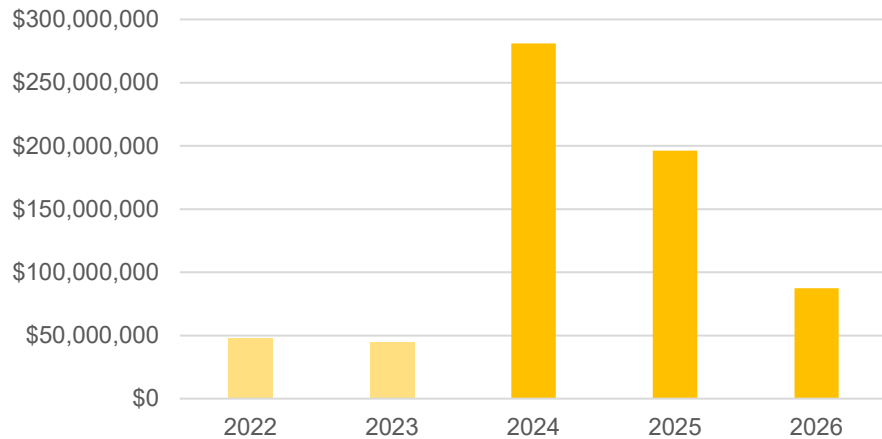




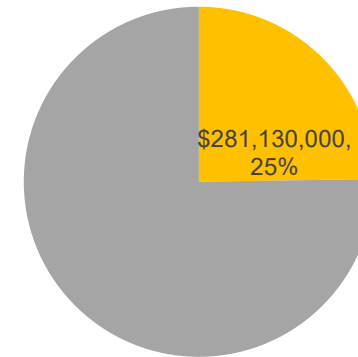
MSP MAINTENANCE/FACILITY UPGRADE PROJECTS

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.

MSP Maintenance/Facility Upgrade Projects



2024 MSP Maintenance/Facility Upgrade Projects

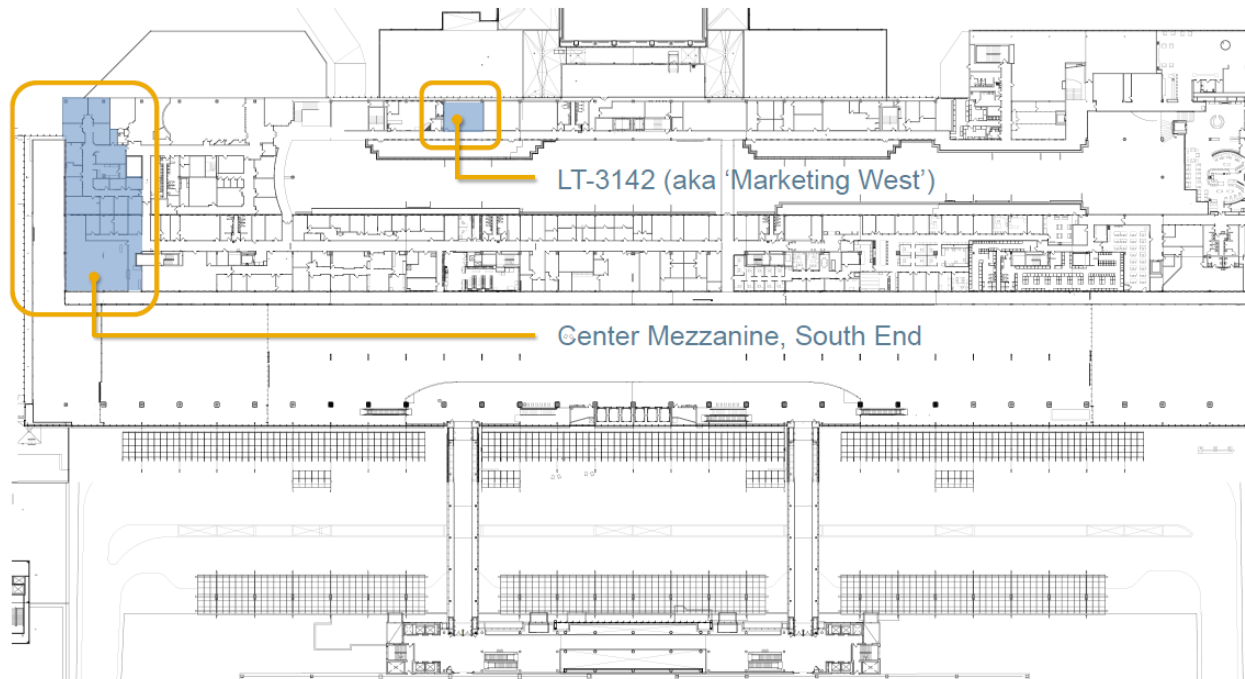
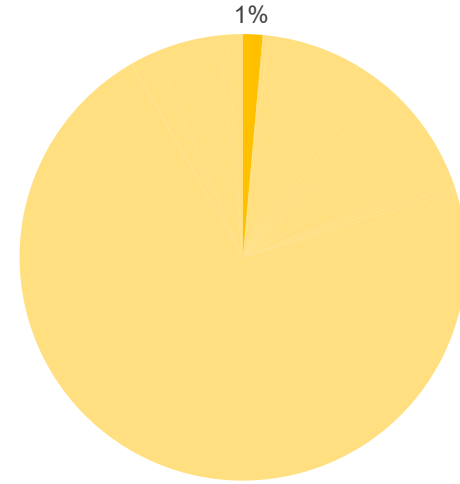


10 – TERMINAL 1

\$4,000,000

ADO OFFICE EXPANSION

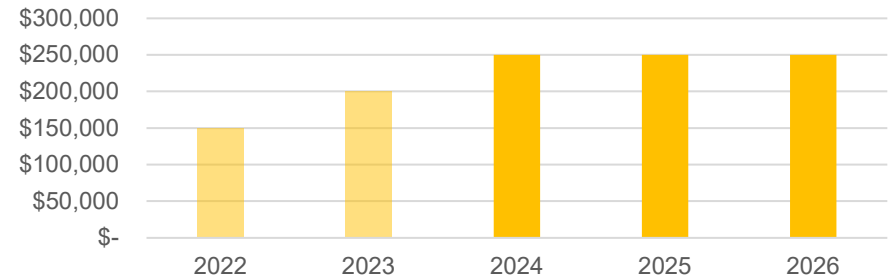
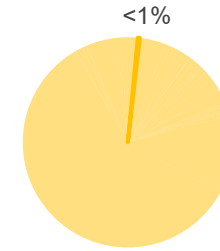
Additional office and meeting space is needed for the Airport Director's Office, suite 3000, to function properly. This expansion and remodel will support increasing MAC staffing numbers and changes in workspace needs.



ART DISPLAY AREAS

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.

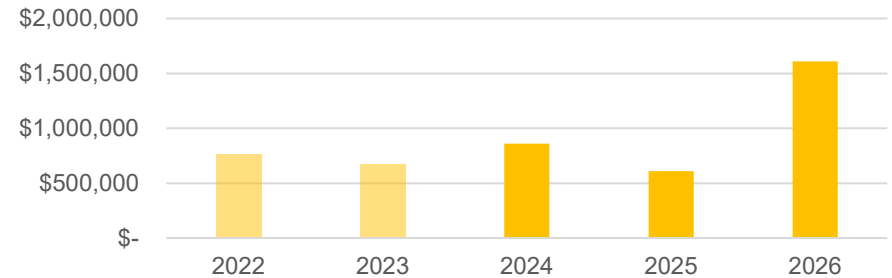
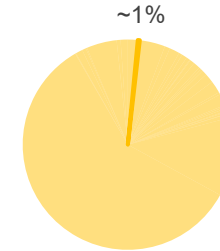
\$250,000



ARTS MASTER PLAN

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

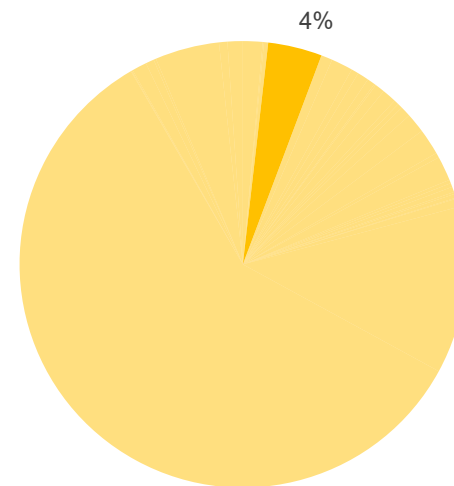
\$860,000



CONCOURSE A HEATING SYSTEM UPGRADE

\$11,000,000

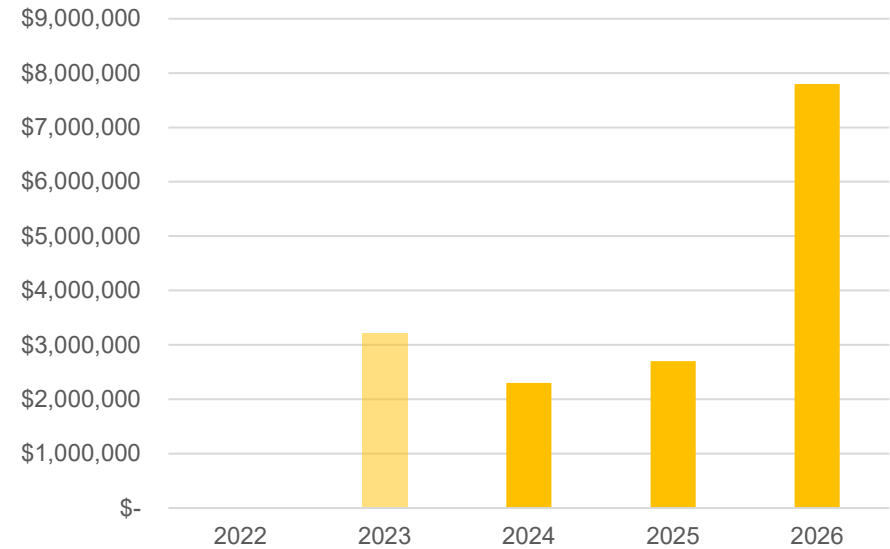
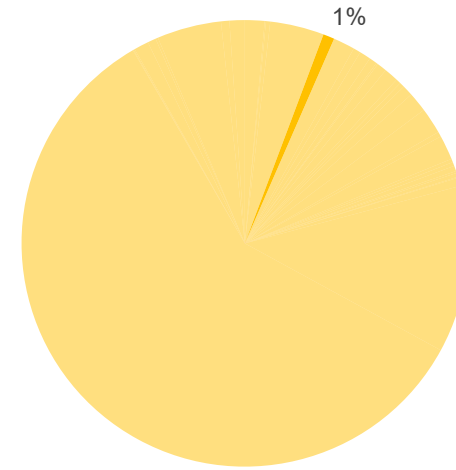
This project will replace the entire heating water system on Concourse A. The new system will include air handling unit fans, heat exchangers, pumps, piping, VAV boxes, FTR, and solar photovoltaic panels. All new equipment will have updated controls that connects into IMACS.



DELIVERY NODE REDEVELOPMENT

\$2,300,000

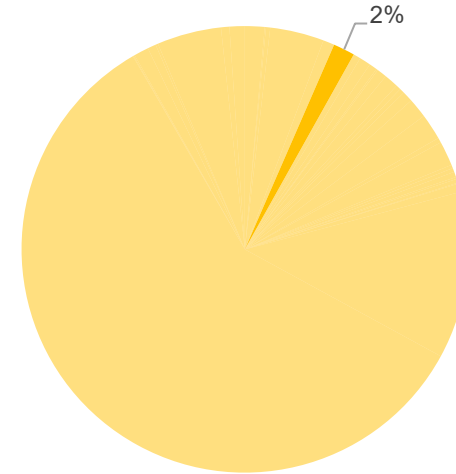
MAC’s existing node delivery and storage system requires long-term improvements at Terminal 2 and Terminal 1 (Concourses A, C, E, F, and G) to provide for safe and efficient delivery, by the logistics company, to MAC and airport tenants. This program will improve or replace existing nodes with more centralized 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

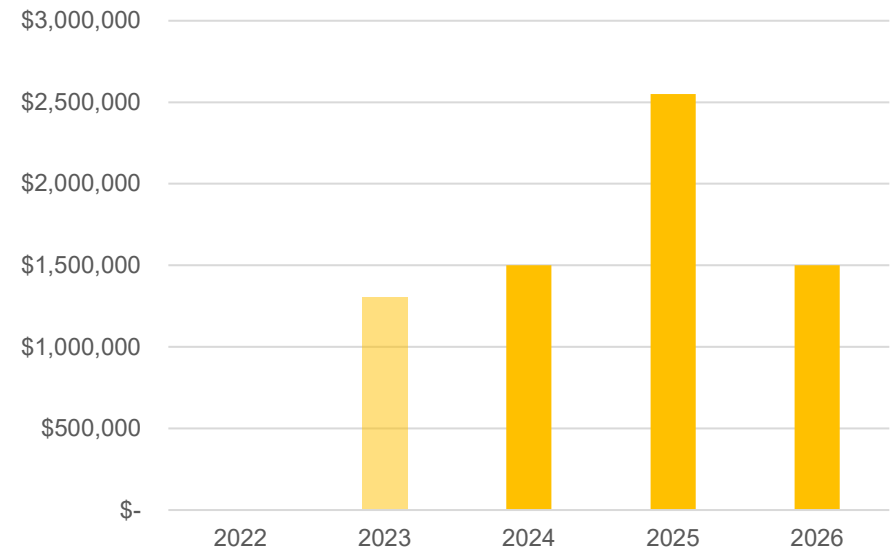
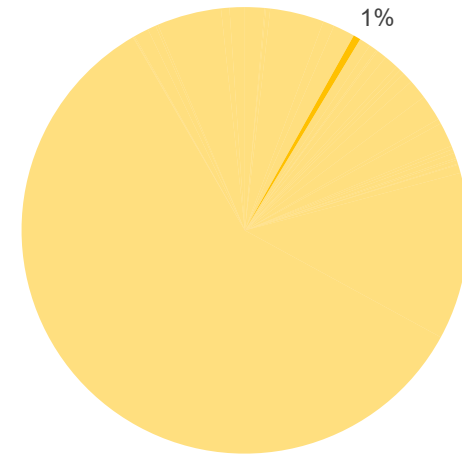
This project will address on-going maintenance issues and aging components of the lavatory buildings at Terminal 1. This project will include a verification and assessment of the structure and roof and make repairs as need. The project will also provide, where needed, new vapor proof LED lighting, IVISN 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

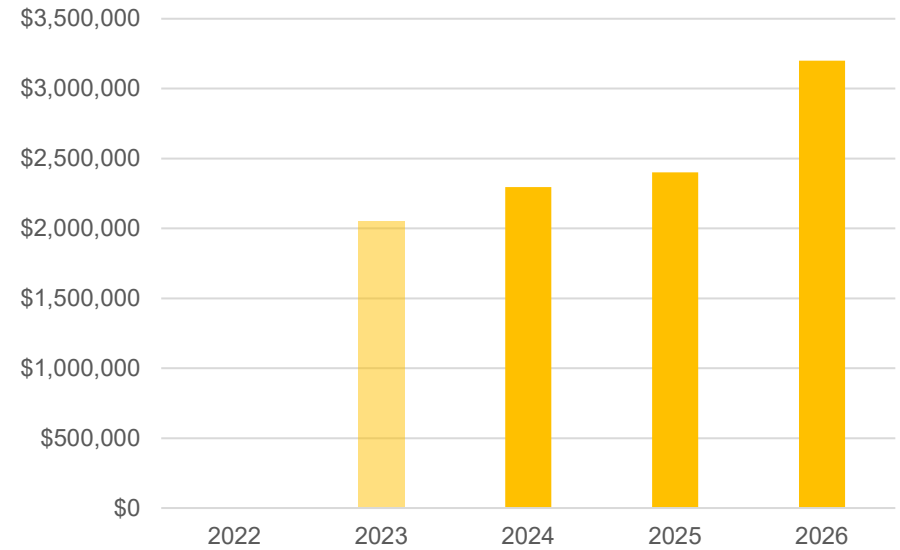
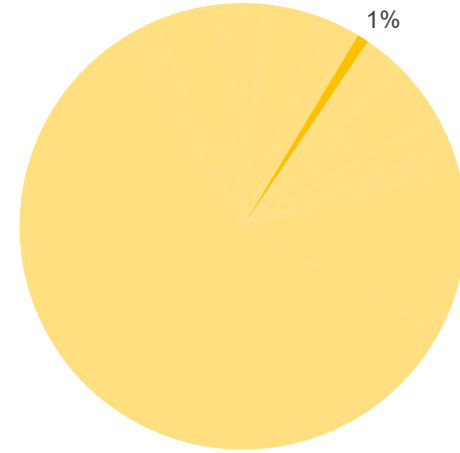
This is a multi-year program that will analyze, assemble, and organize lighting system upgrade recommendations for the MSP campus. Annual investment in lighting infrastructure is necessary to ensure its safe operation, reduce energy and maintenance costs, and to implement technology upgrades to improve 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

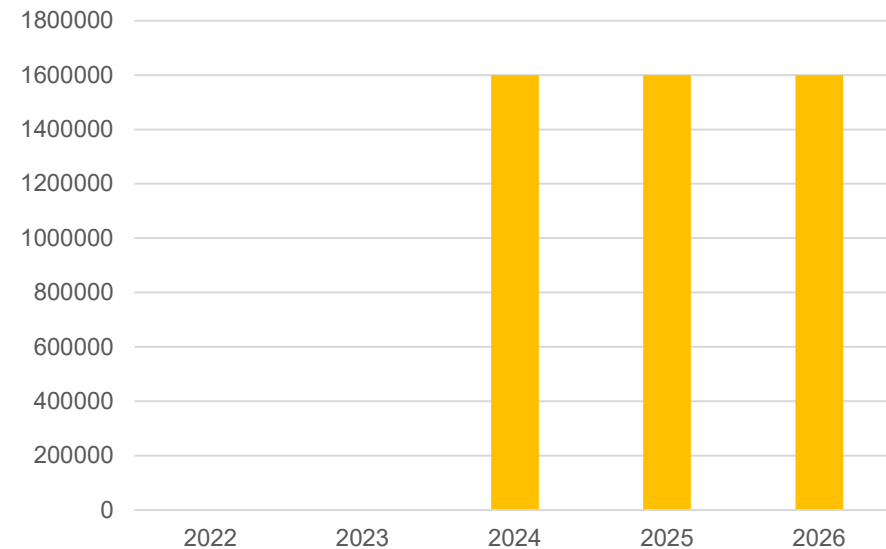
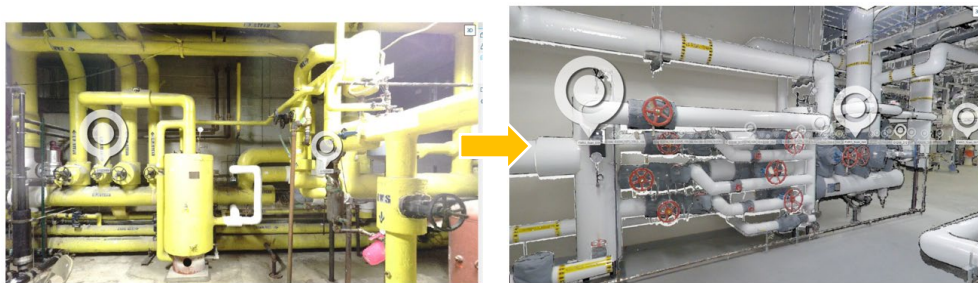
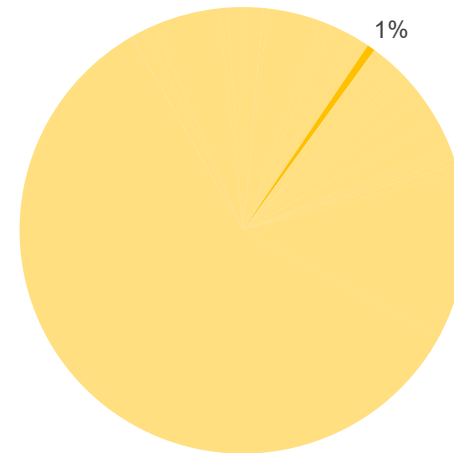
A study of all restrooms in Terminal 1 was completed in 2010 and a program developed to upgrade/modernize the restrooms at Terminal 1. From this study, each restroom was prioritized based on its condition. This program will provide for the phased modernization of the Terminal 1 restrooms to include upgraded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



STEAM SYSTEM UPGRADE PROGRAM

\$1,600,000

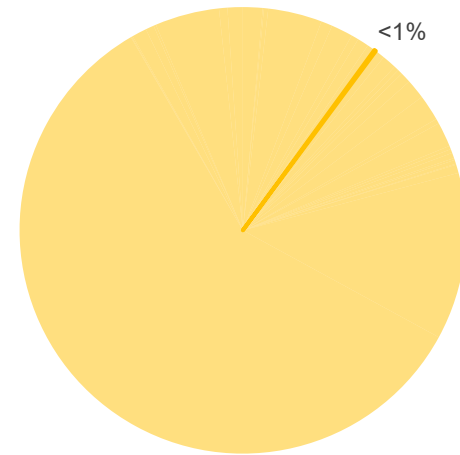
This program will replace steam pressure reducing stations that are near or past the end of their useful life. The program will also replace heat exchangers in two mechanical rooms and replace valves in the boiler fuel system piping.



TERMINAL 1 CURBSIDE CANOPY REPAIRS AND LIGHTING UPGRADES

\$350,000

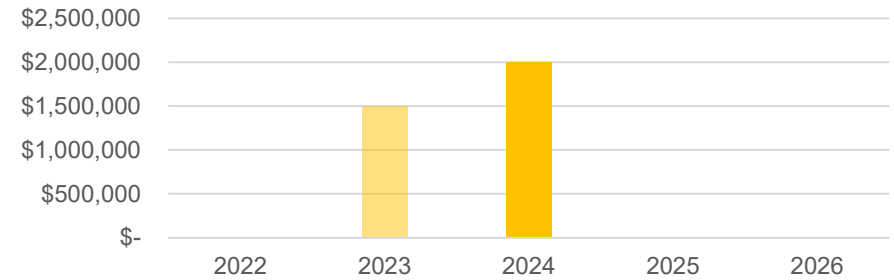
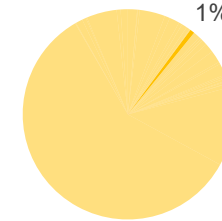
This project will make improvements to the aging infrastructure on the East and West curbside canopies at Terminal 1, including new LED fixtures on the west canopy, snow dam systems, repairing gutters on the east and west canopies, and paint as needed.



TERMINAL 1 TUG DRIVE HEATER REPLACEMENT

\$2,000,000

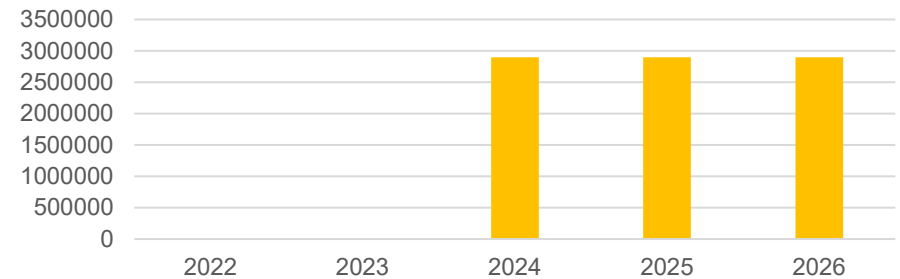
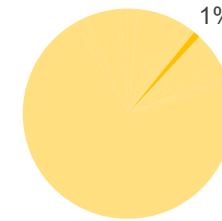
This project will replace all existing Terminal 1 tug drive steam unit heaters with hot water unit heaters.



TERMINAL 1 TUG DRIVE WATERPROOFING

\$2,900,000

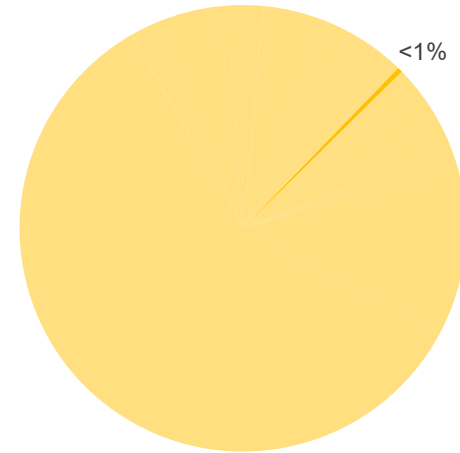
The Terminal 1 tug drive was last sealed and waterproofed in 2007-2010. Concrete waterproofing typically has a 10-year lifespan and needs to be redone in order to minimize water infiltration into the structure and lower level spaces. This project would waterproof the concrete for the entire tug drive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



TERMINAL 1 TRAM MAINTENANCE

\$1,000,000

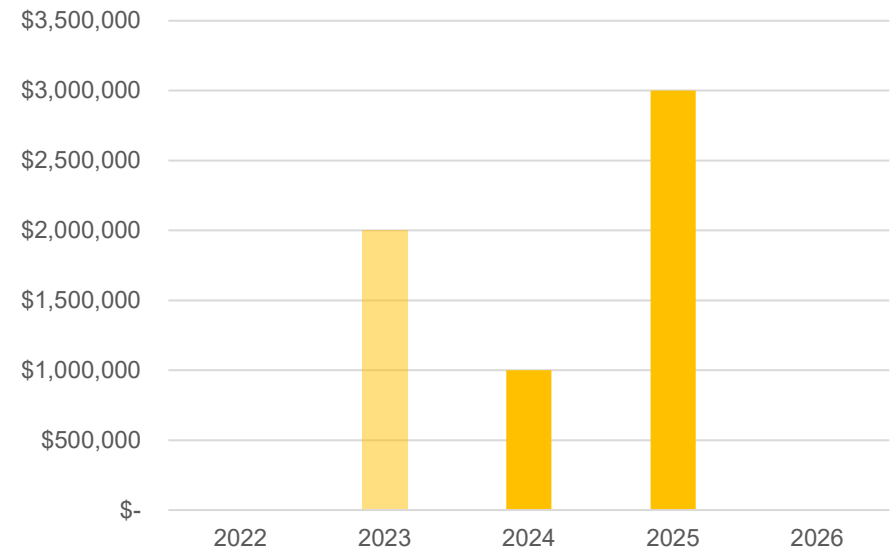
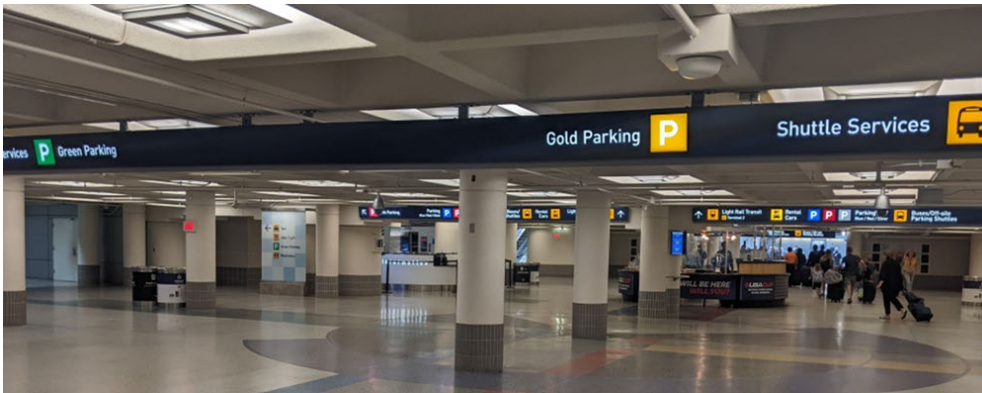
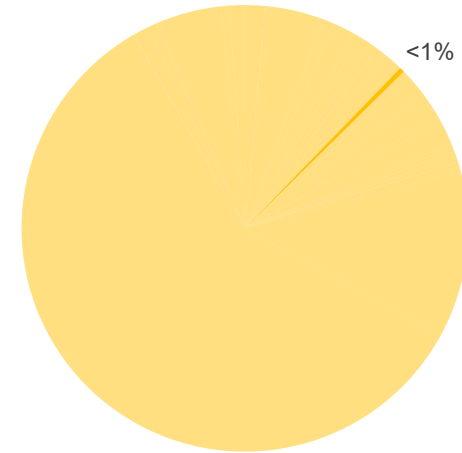
The project will provide replacement parts and maintenance for the concourse and hub tram systems to extend their useful life.



WAYFINDING 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.

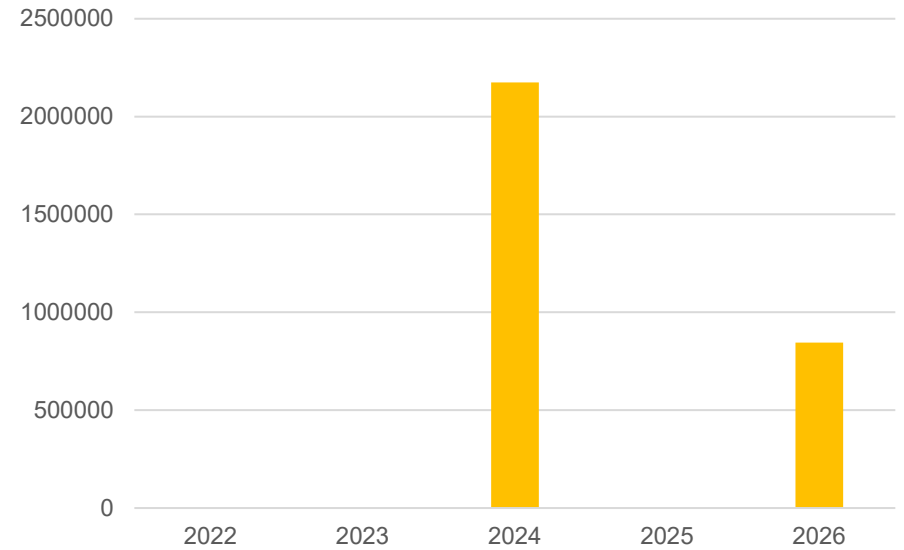
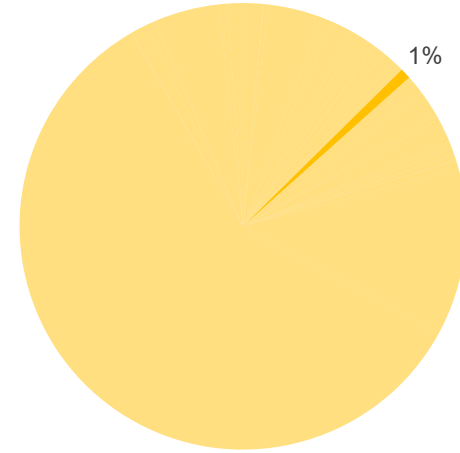


12 – FEDERAL INSPECTION STATION (FIS)

\$2,175,000

FIS FACILITY UPGRADES

The FIS Facility Upgrades project is a multi-year project to bring the FIS facilities in Terminal 1 and Terminal 2 up to the Airport Technical Design Standards (ATDS) and other required improvements as prescribed by Customs and Border Protection (CBP).

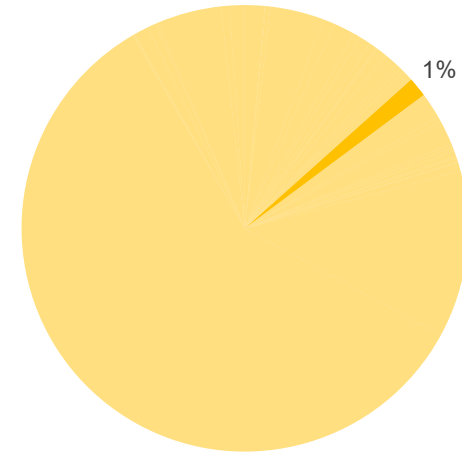


13 – ENERGY MANAGEMENT CENTER

\$4,000,000

CHILLER PLANT OPTIMIZATION

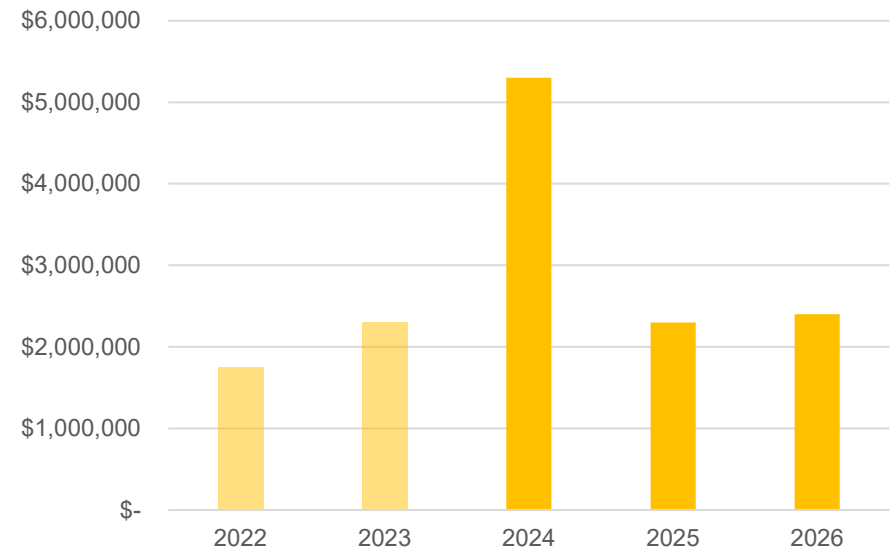
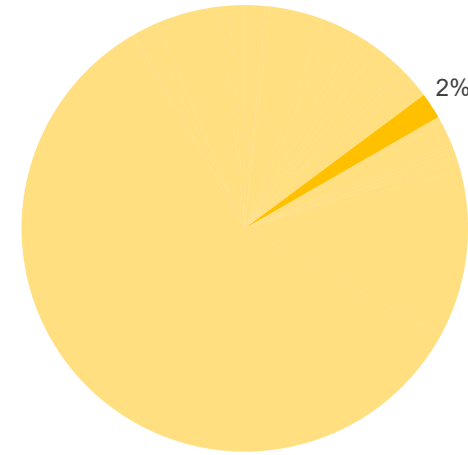
This project installs new sensors throughout the chilled water system, installs variable frequency drives for pumps, and removes pumps in the system that are no longer necessary. Additionally, this project installs a new program on the MAC network, connected to IMACS, to operate the chiller plant at 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.



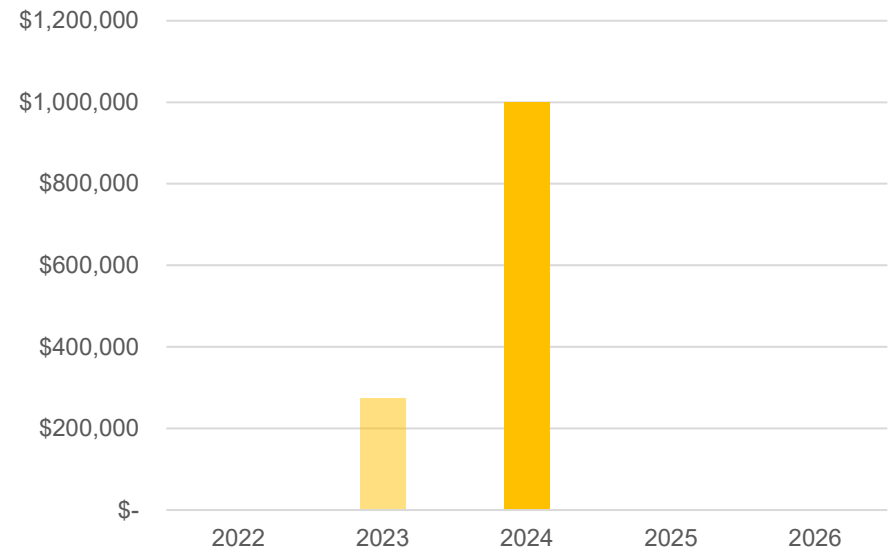
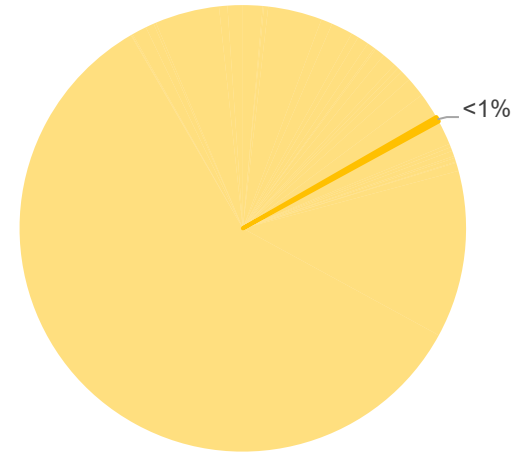
21 – FIELD AND RUNWAY

ANTI-CLIMB FENCING AND LIGHTING

Anticipated funding source:

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

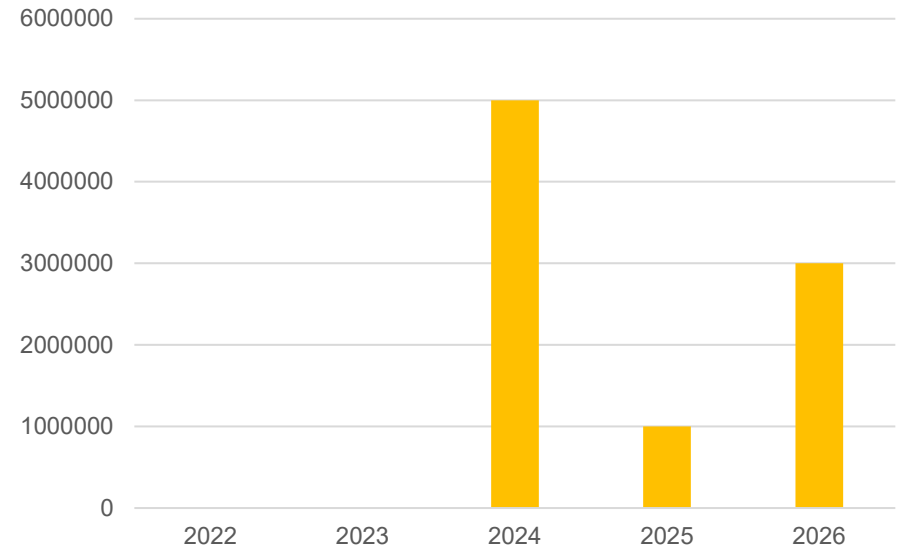
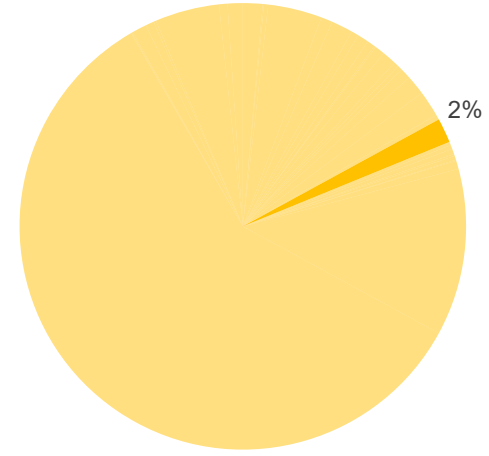
\$1,000,000



APRON LIGHTING LED UPGRADE

\$5,000,000

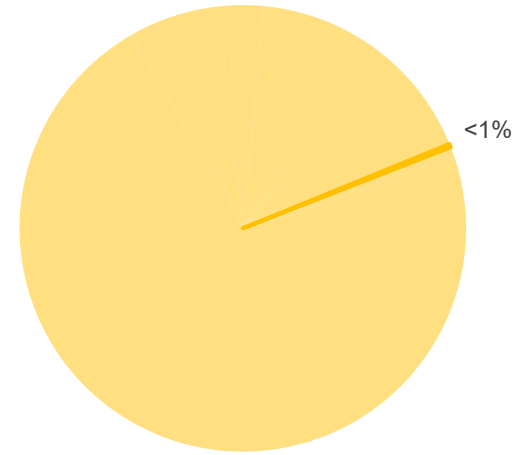
This project will replace the older apron lighting units with more efficient LED fixtures.



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.

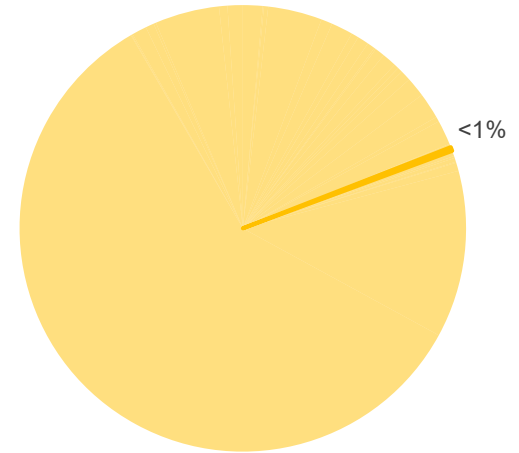


TAXIWAYS B AND Q ISLANDS

\$800,000

Anticipated funding source:

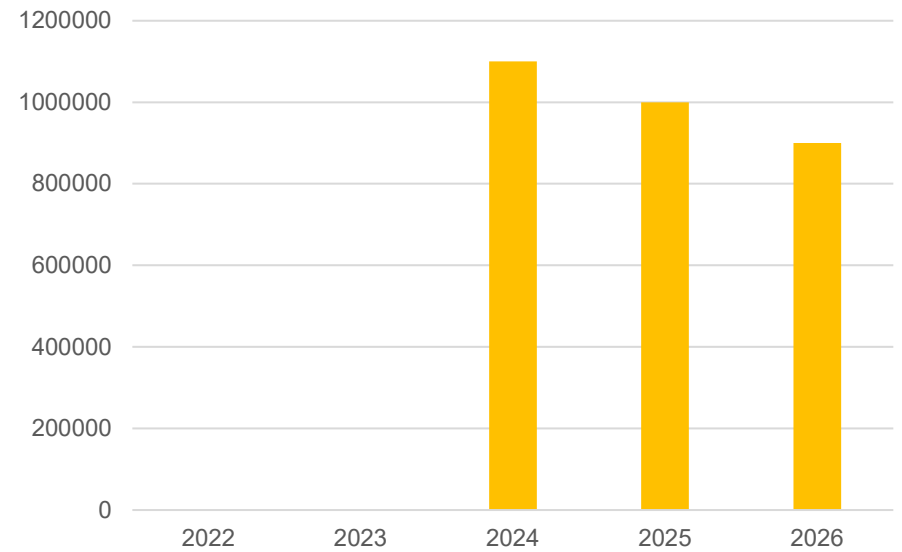
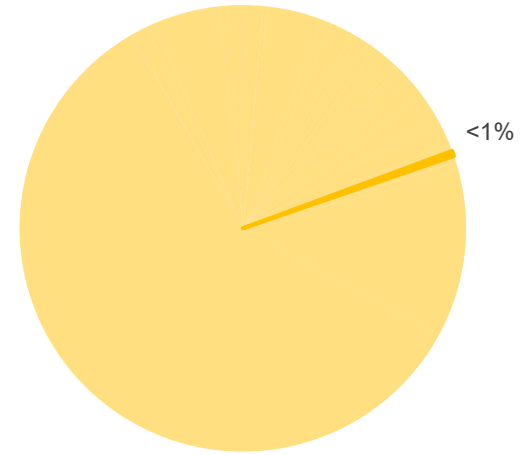
This project will construct a taxiway island at the intersection of created Taxiways C and D and P and Q, pending FAA consensus-building process.



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.

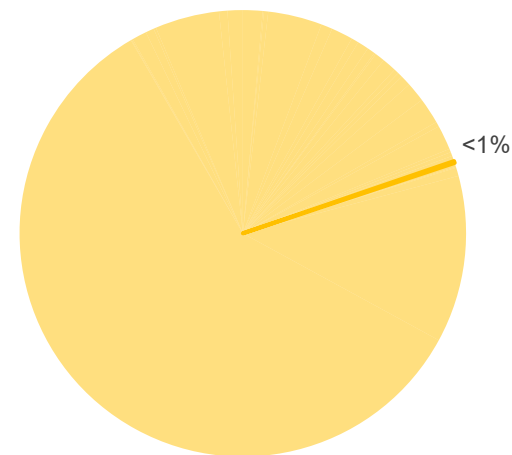


36 – TERMINAL 2

TERMINAL 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 2. Additionally, the project will connect to the MAC SAACS or IMACS systems to allow for remote locking and unlocking of the door hardware.

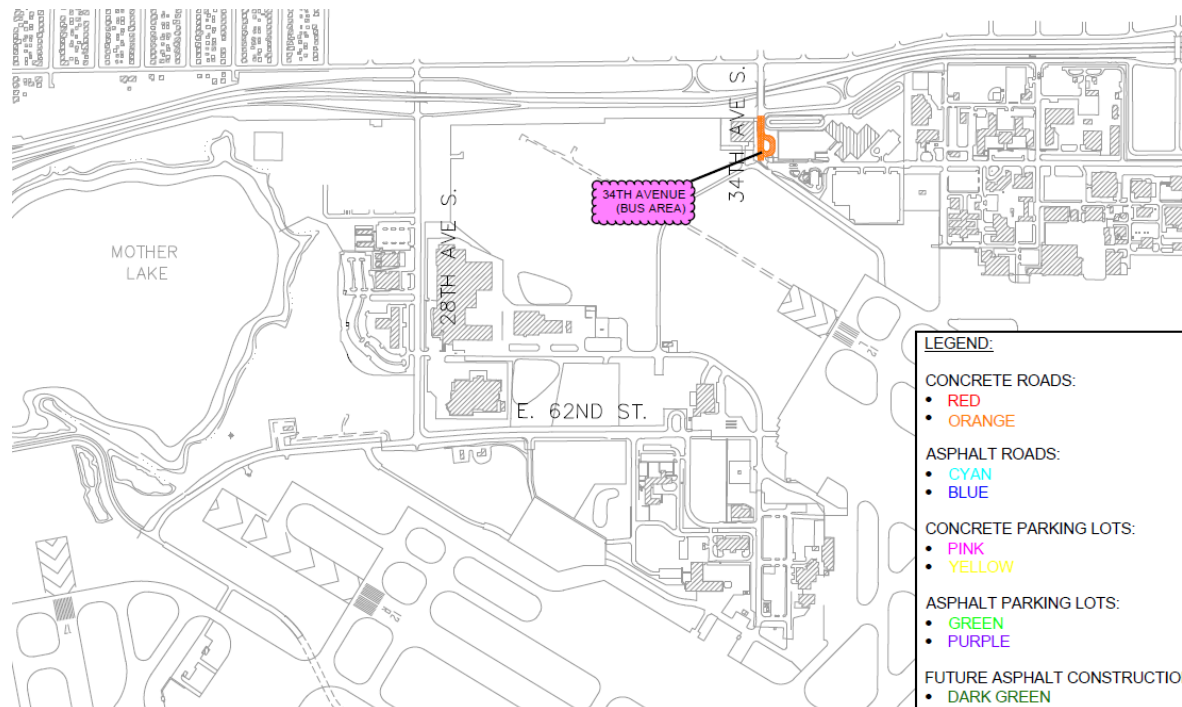
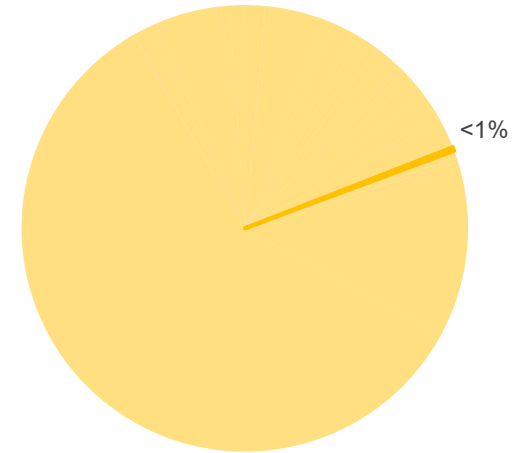


39 – PUBLIC AREAS/ROADS

\$800,000

34th AVENUE BUS AREA RECONSTRUCTION

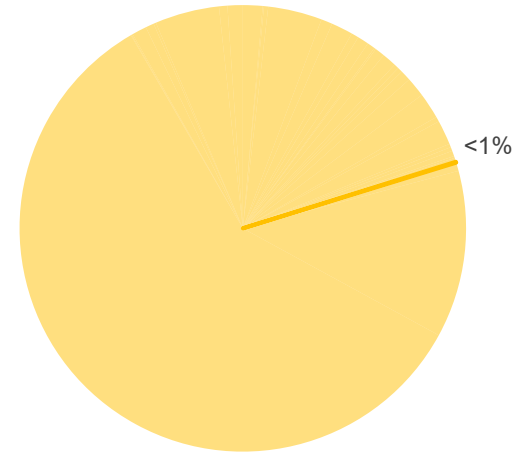
This project will reconstruct the 34th Avenue Bus Area in concrete. The existing roadway is reaching the end of its useful life and has had periodic maintenance to patch areas. The project limits include a portion of 34th Avenue from the MnDOT right-of-way to the bus loop entrance and the bus loop. The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



34TH AVENUE TRAFFIC CONTROL IMPROVEMENTS

\$200,000

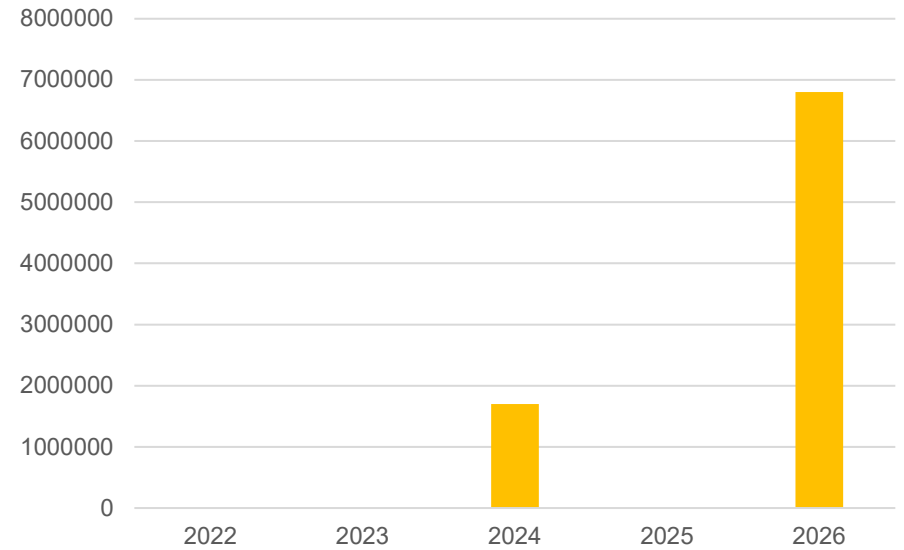
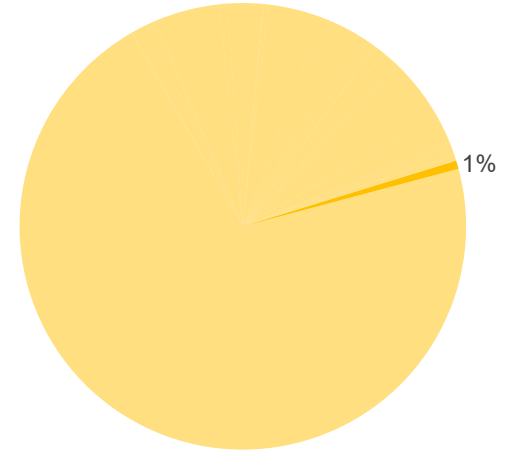
This project will support the City of Bloomington's upgrade to the signal-related items as part of the Metro Transit Blue Line enhancement project.



TUNNEL FAN REPLACEMENT

\$1,700,000

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 repair or replace these fans as necessary and possible. The 2024 phase will focus on the 4-22 tunnel.

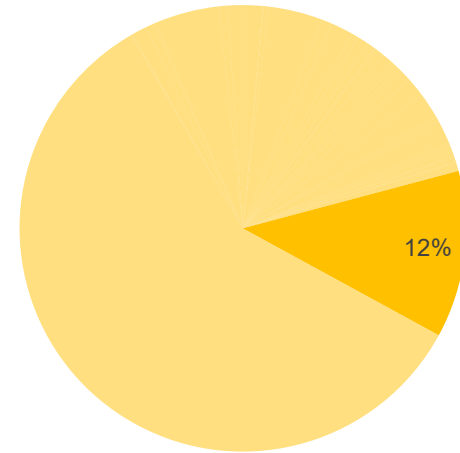


46 – HANGARS AND OTHER BUILDINGS

\$34,000,000

MAC STORAGE FACILITY

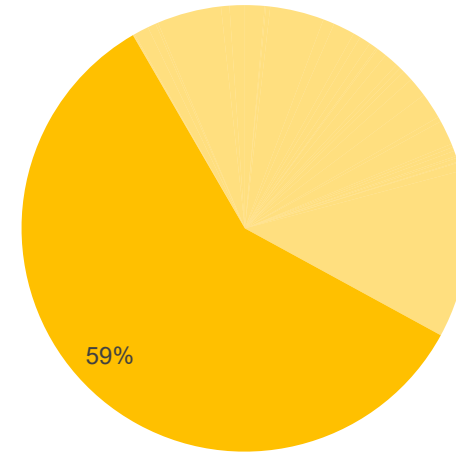
This project will construct a new building to provide storage and associated workspace to replace storage spread around the campus in buildings that can no longer provide adequate protection from the elements and pests.



SAFETY AND SECURITY CENTER

\$165,000,000

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.

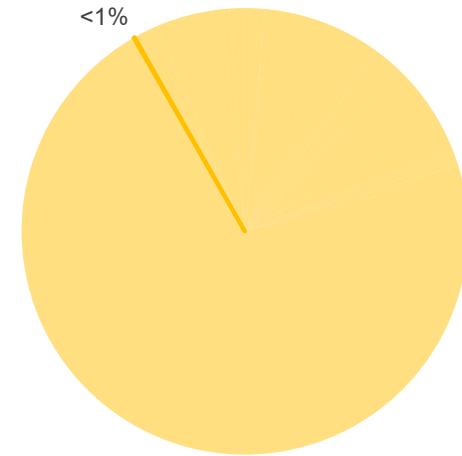


63 – POLICE

\$150,000

EMERGENCY COMMUNICATIONS CENTER UPDATES

This project will reconfigure the current ECC conference room, which serves as both a conference room and manager's office, to be two separate offices.

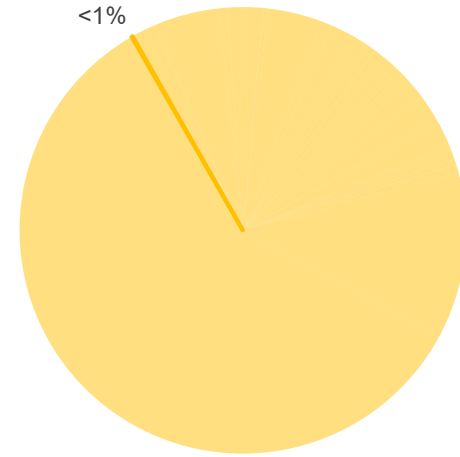


70 – GENERAL OFFICE/ADMINISTRATION

\$250,000

GO WORKSPACE IMPROVEMENTS

This project includes an office renovation of the GO south wing to add additional workspaces to accommodate new full-time employees and to pilot improvements for other areas in the building to reflect modern workspace needs.



76 – ENVIRONMENT

FIREFIGHTING FOAM SYSTEM CONVERSION

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.

\$3,000,000

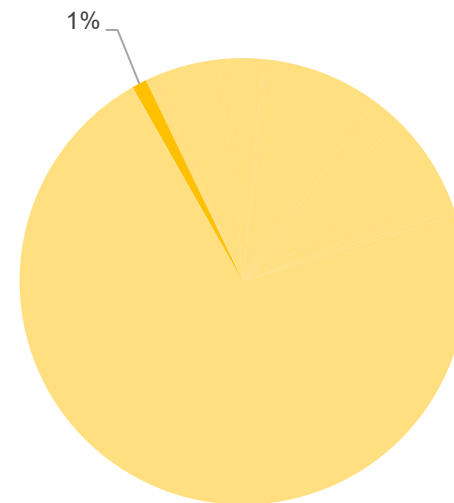
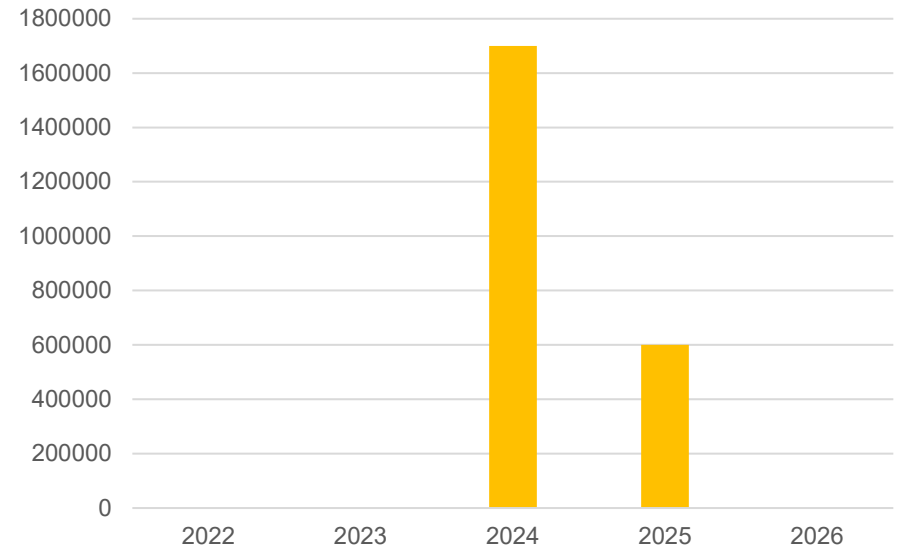
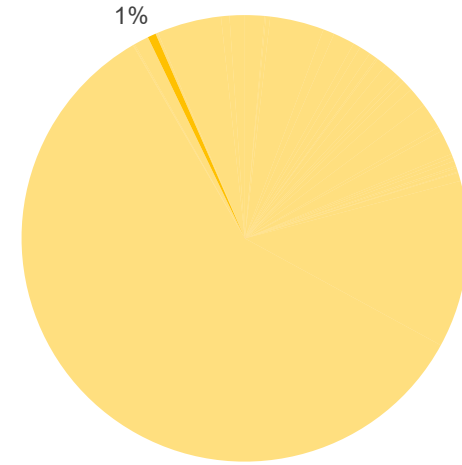


image source: [firefighting-foam.jpg \(1066x600\) \(oppenheimlaw.com\)](#)

**GLYCOL SEWER & STORM SEWER INSPECTION/
REHABILITATION**

\$1,700,000

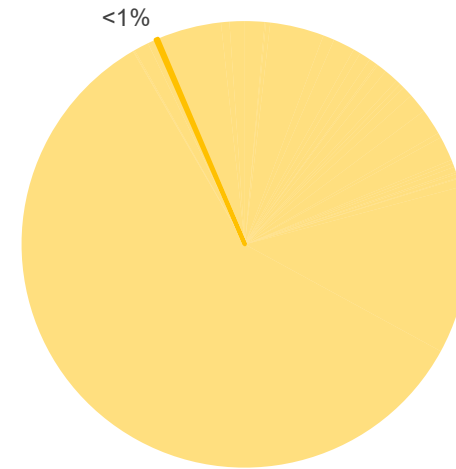
This project provides for cleaning and video inspection of gravity sewers, including deicing pads, plug and pump deicing areas, and conveyance sewer. This project also includes pressure testing of glycol forcemains.



GROUND SERVICE EQUIPMENT (GSE) ELECTRICAL CHARGING STATIONS

\$500,000

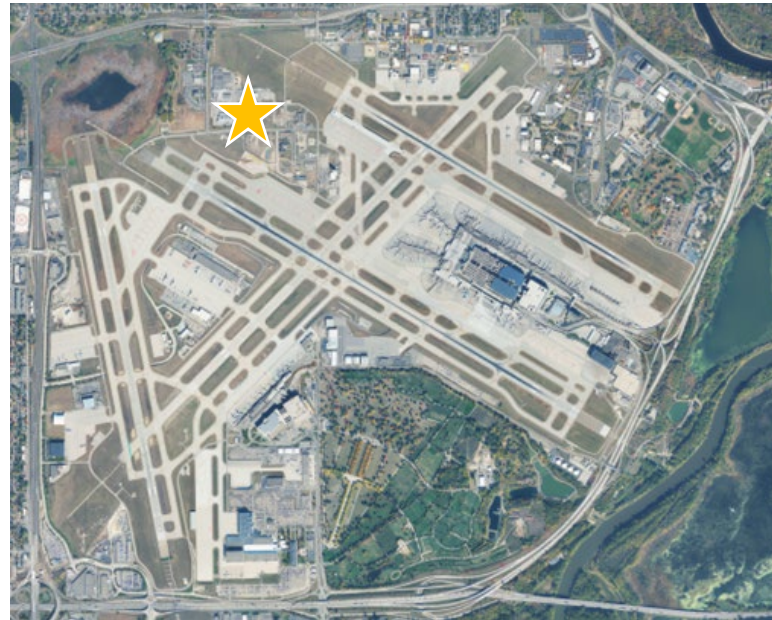
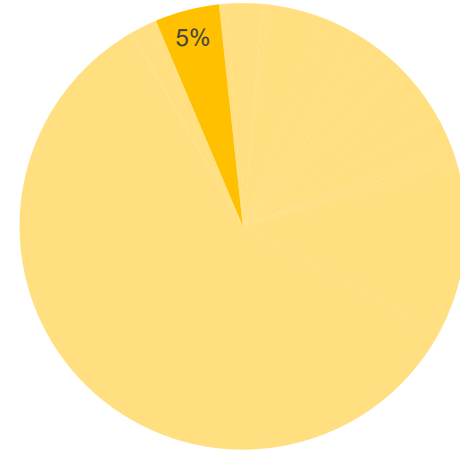
This project will purchase and install charging stations for airline electric ground support equipment (GSE) at Terminal 2. These fast, energy-efficient charging stations allow for simultaneous charging, adjustable charging rates, and automatic shut-off when the GSE are fully charged.



MAINTENANCE CAMPUS INFILTRATION POND

\$13,100,000

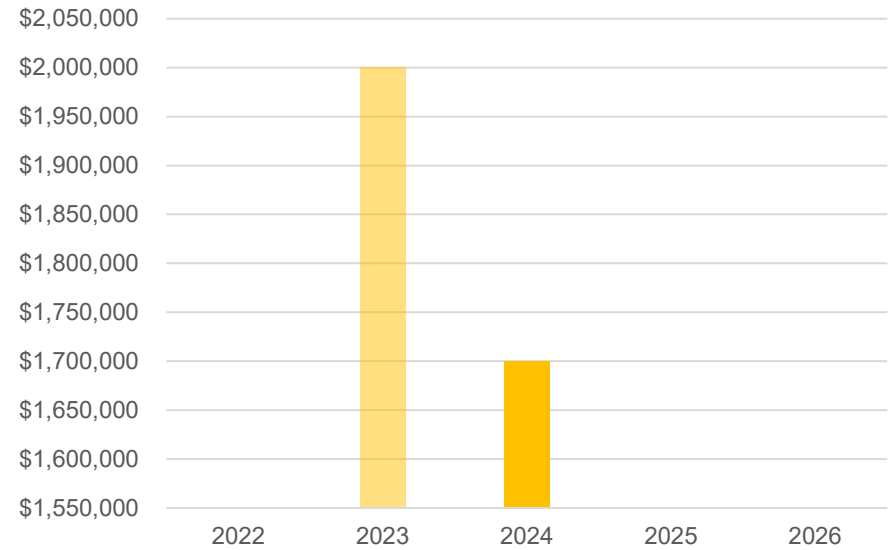
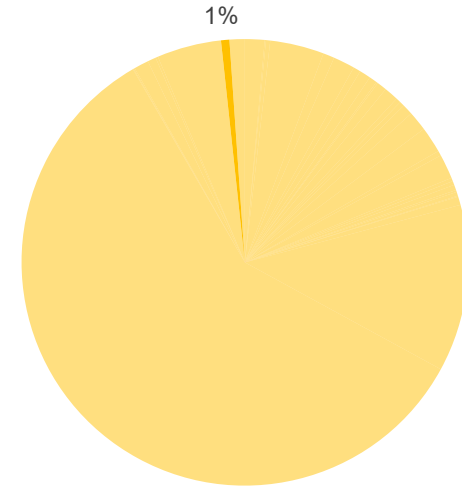
This project will prepare the site and install an infiltration pond to address stormwater management for the Field Maintenance and Trades campus north of the airfield, in support of several future building projects.



RUNWAY 12R-30L GLYCOL FORCEMAIN ENVIRONMENTAL IMPROVEMENTS

\$1,700,000

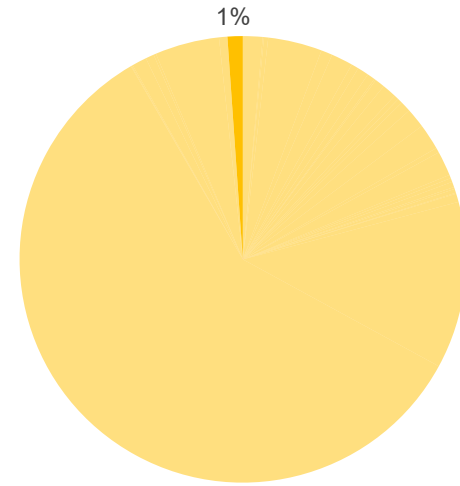
This project provides for construction of glycol pumping stations and forcemains to convey glycol-impacted stormwater from the Runway 30R and 30L deicing pads to the existing glycol sewers west of Runway 4-22 and the glycol management facility.

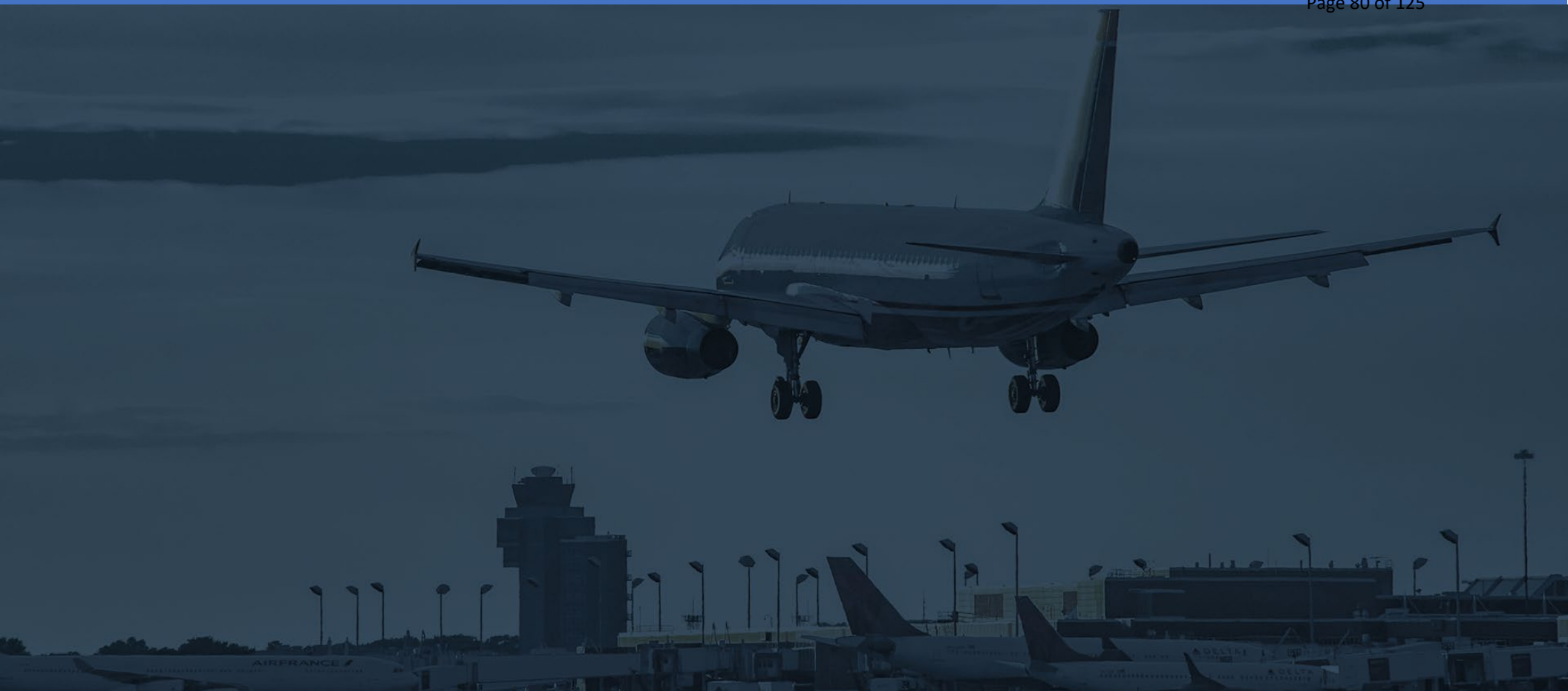


PHOTOVOLTAIC SYSTEM IMPROVEMENTS

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.

\$3,100,000

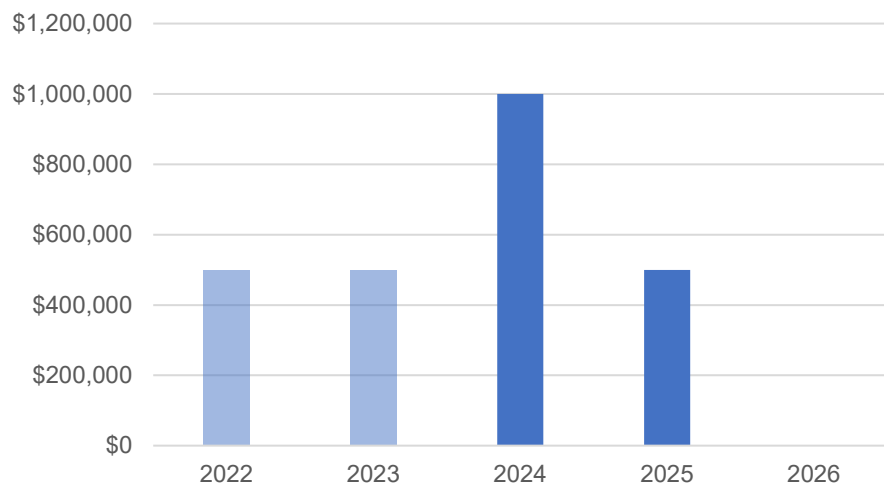




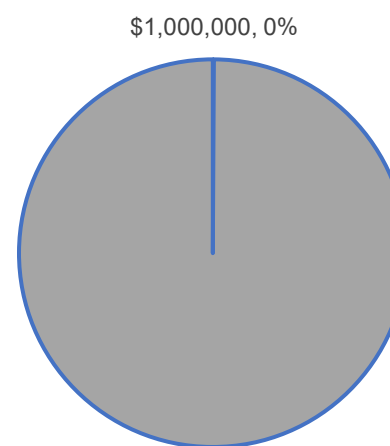
MSP NOISE CONSENT DECREE AMENDMENT

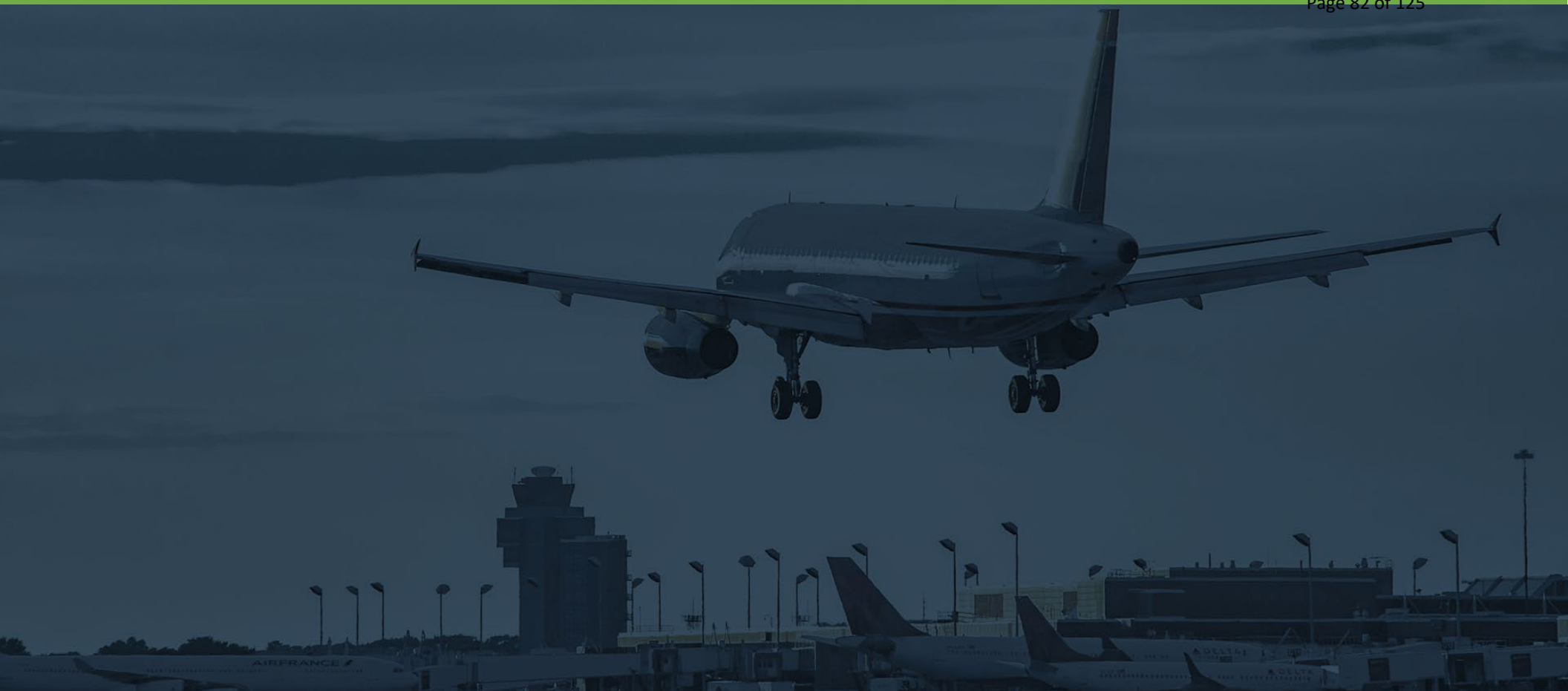
The Consent Decree First Amendment Program is a residential noise mitigation program that began in March 2014 under the terms of an amended legal agreement (Consent Decree) between the Metropolitan Airports Commission (MAC) and the cities of Richfield, Minneapolis, and Eagan, and approved by the Hennepin 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 Noise Mitigation Projects



2024 MSP Noise Mitigation Project

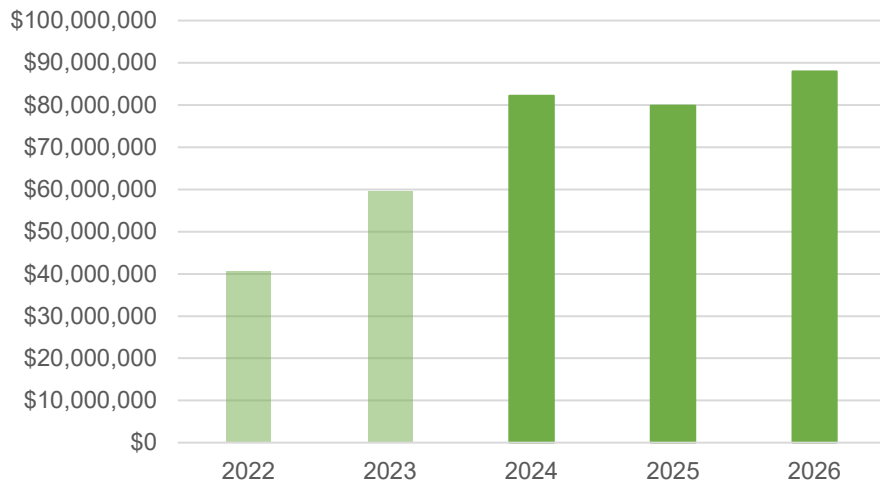




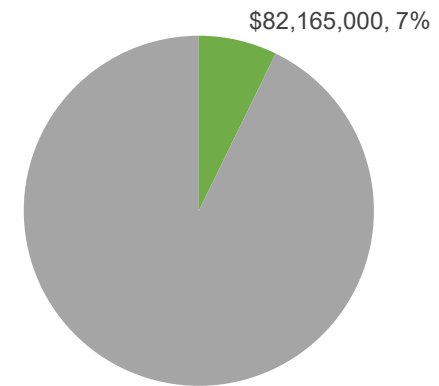
MSP ONGOING MAINTENANCE PROGRAMS

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.

MSP Ongoing Maintenance Programs



2024 MSP Ongoing Maintenance Programs

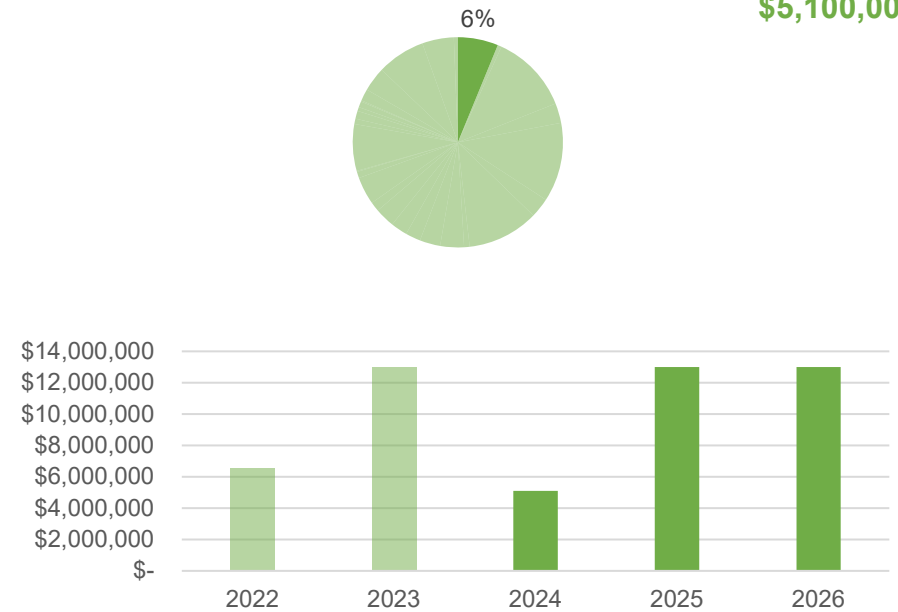


10 – TERMINAL 1

AIR HANDLING UNIT REPLACEMENT

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.

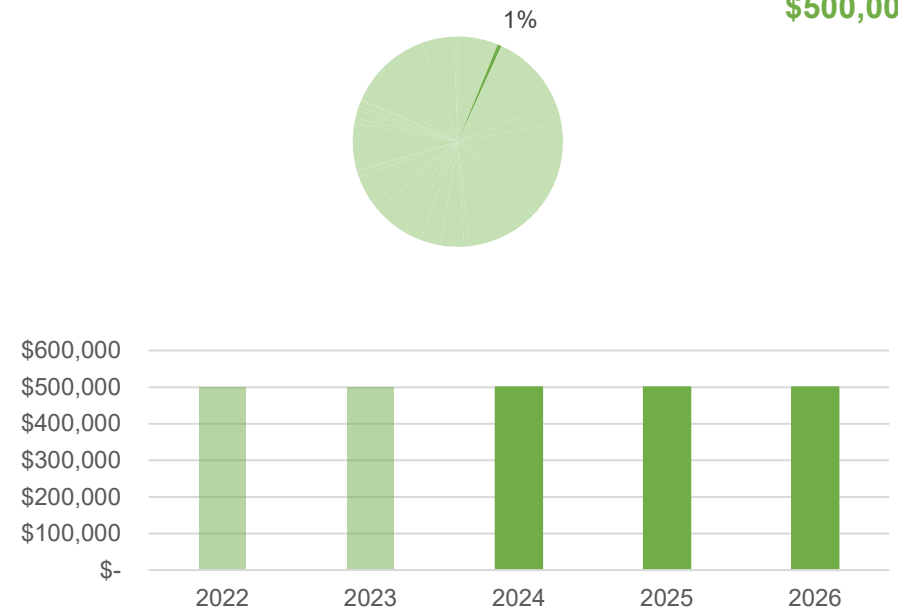
\$5,100,000



BAGGAGE SYSTEM UPGRADES

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

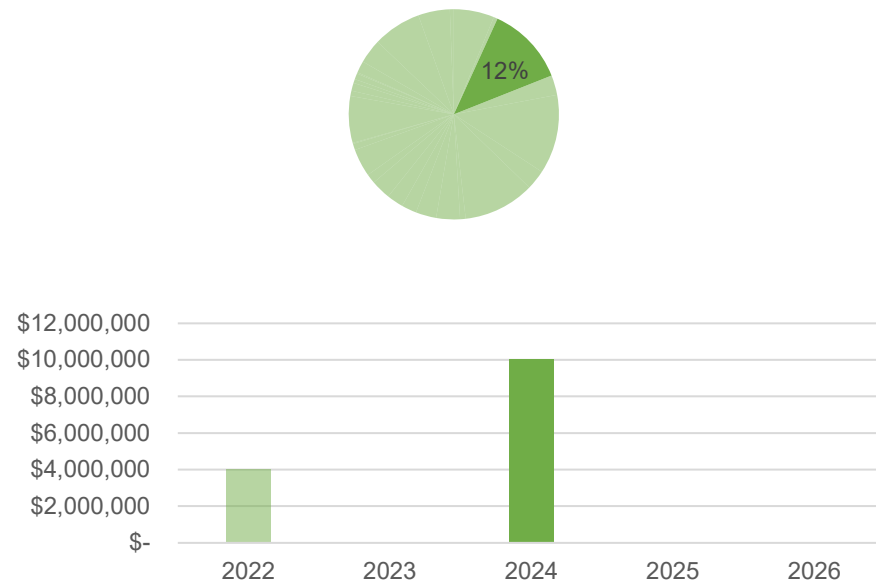
\$500,000



CONCOURSE G REHABILITATION

\$10,000,000

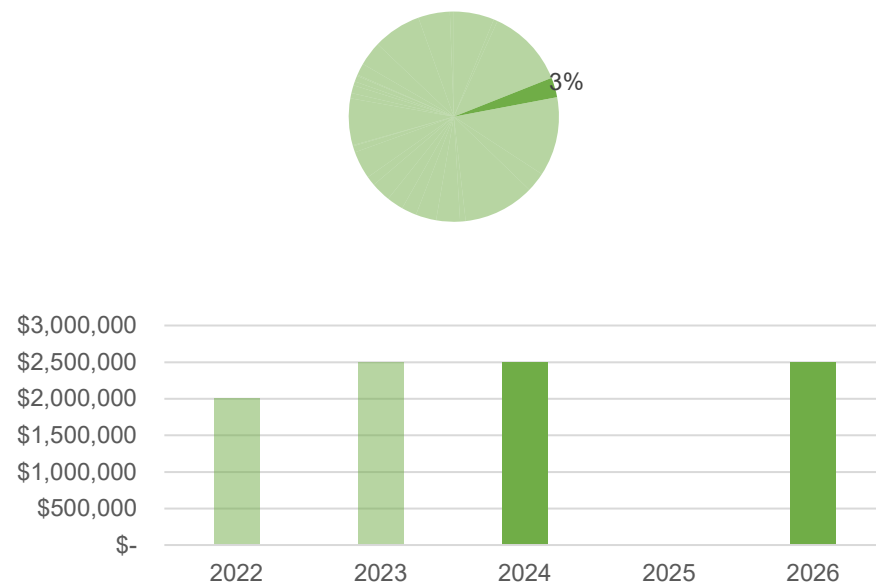
The final phase of this multi-year program will provide operational improvements to the existing concourse over time, including replacing elevators, modifying and replacing structural, electrical, and mechanical systems.



ELECTRICAL INFRASTRUCTURE PROGRAM (EIP)

\$2,500,000

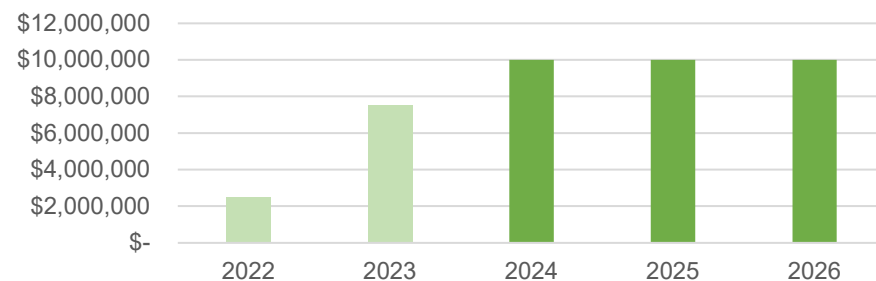
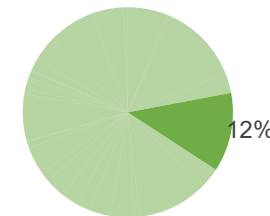
There are 53 electrical substations that serve the Terminal 1 complex. It is imperative that these substations be routinely inspected, cleaned, and upgraded to ensure their continued performance.



ELECTRICAL SUBSTATION REPLACEMENT

\$10,000,000

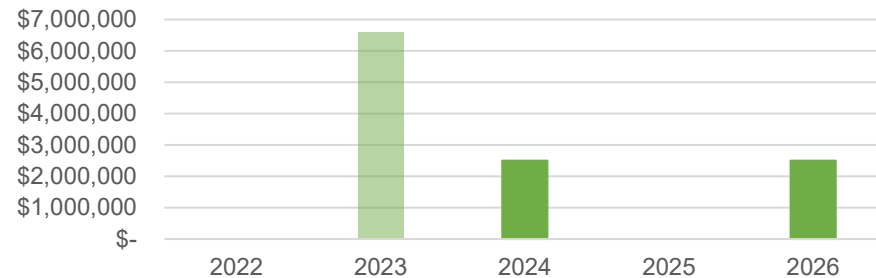
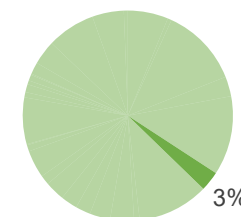
This is a multi-year program to replace electrical substations which are at or very near end of life. This program will also improve redundancy.



EMERGENCY POWER UPGRADES

\$2,500,000

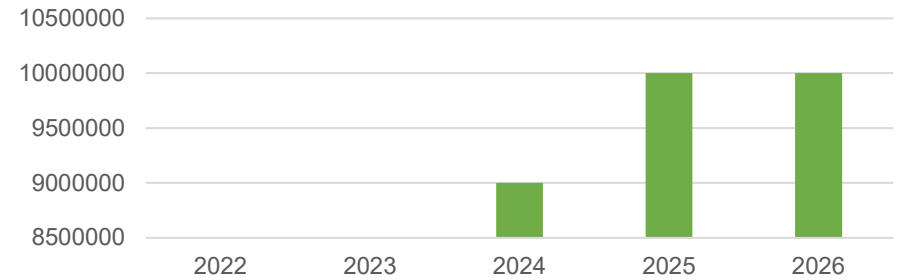
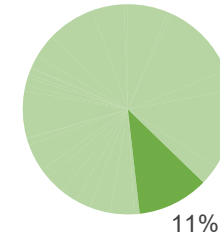
A study and survey of Terminal 1 transfer switches and emergency lighting was completed in 2008. This year's project is part of a multi-year program that will continue the design and implementation of emergency power and lighting corrective work identified in this study.



GROUND POWER SUBSTATION REPLACEMENT

\$9,000,000

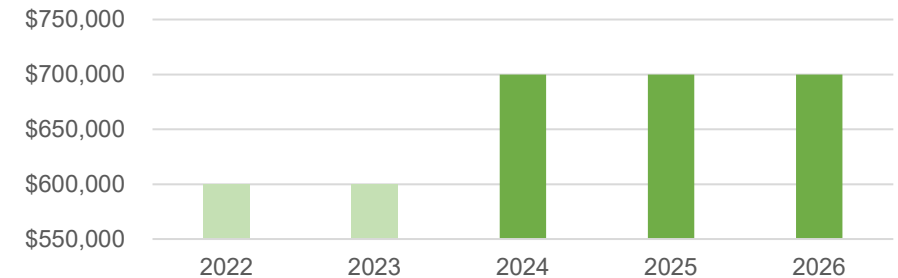
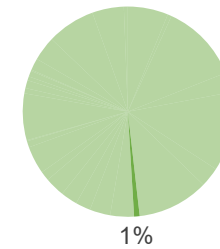
This program is focuses on updating and improving substations that serve airside operations such as jet bridges, and providing heating, cooling, and power for parked aircraft. These substations also provide power for charging electric ground service vehicles. This program will position MSP to be able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



PLUMBING INFRASTRUCTURE UPGRADE PROGRAM

\$700,000

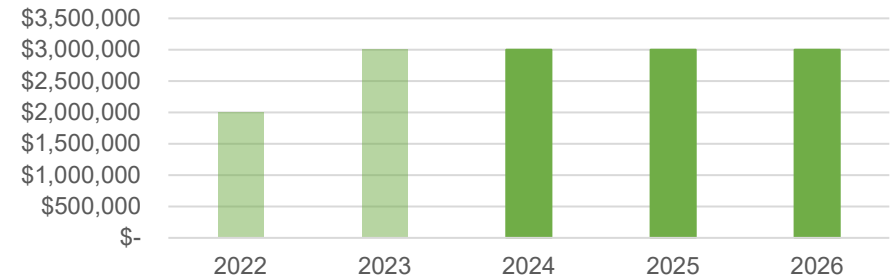
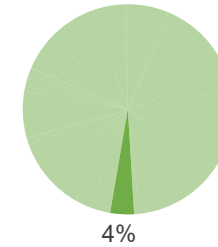
In 2010, MAC staff prepared a preliminary study of the reliability and maintainability of the existing plumbing infrastructure. Portions of the existing plumbing infrastructure serving Terminal 1 are over 40 years old, have systems that are undersized for today’s demands, contain isolation valves that 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 to upgrade the plumbing infrastructure system to meet current code requirements and MAC standards.



TERMINAL BUILDING REMEDIATION PROGRAM

\$3,000,000

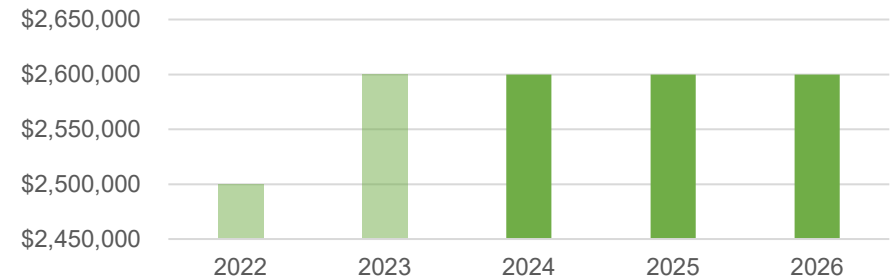
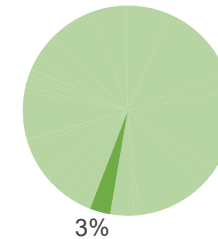
Continual maintenance of the terminal buildings is imperative to passenger comfort and safety as well as sustainability of the MAC asset. Age and weather contribute to building deterioration, mold, and other health issues. Building and concourse envelope issues include curtain wall systems, glazing,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

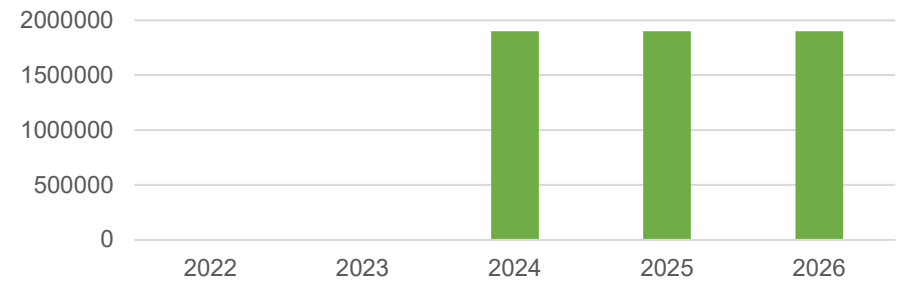
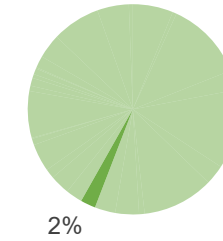


13 – ENERGY MANAGEMENT CENTER

\$1,900,000

EMC LIFE SAFETY INFRASTRUCTURE PROGRAM

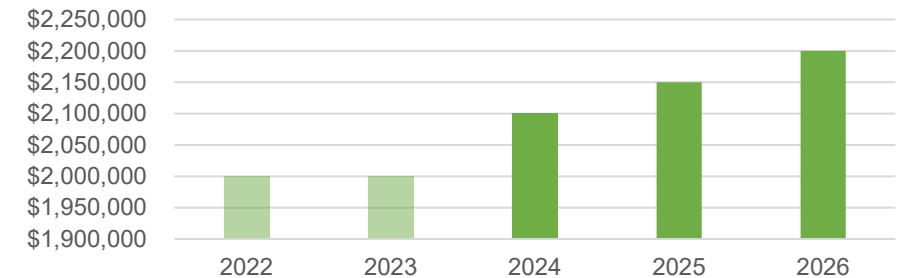
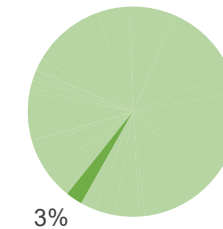
This program will replace life safety equipment and devices associated with the heating, ventilation, and air conditioning system throughout MSP campus. Equipment includes gas detection sensors and life safety dampers. Additionally, all new equipment and devices will connect to IMACS for monitoring and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



EMC PLANT UPGRADES

\$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 as well as other facilities on the MSP campus. The work includes upgrades to the aging Chilled Water and Heating Water systems. The pumping and piping systems on both the heating and cooling systems are aging and in need of repair work beyond regular maintenance.

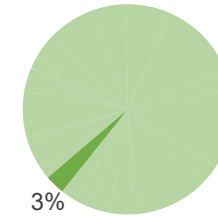


21 – FIELD AND RUNWAY

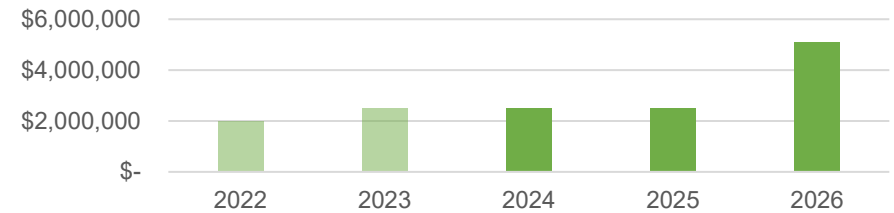
\$2,500,000

AIRSIDE ELECTRICAL CONSTRUCTION

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



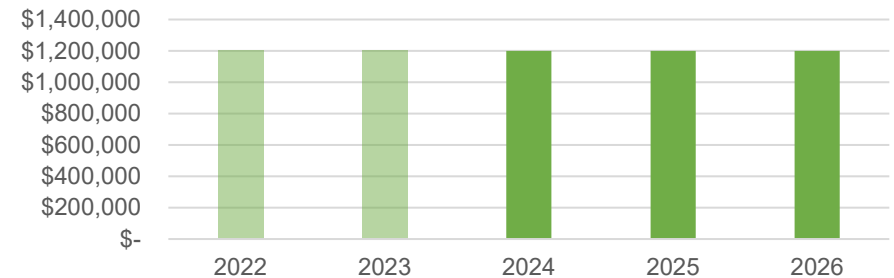
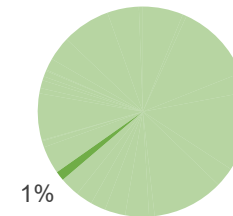
Airside Electrical Construction



AIRSIDE ROADWAY PAVEMENT RESTORATION

\$1,200,000

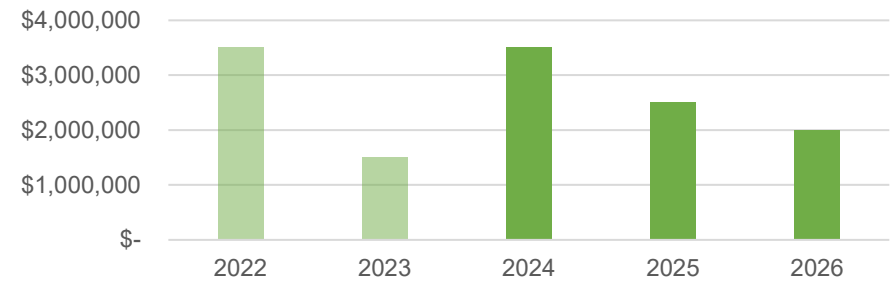
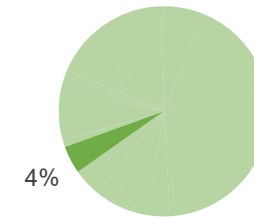
This is an ongoing program to rehabilitate roadways on the airfield through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. The pavement condition index report as well as an inspection 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

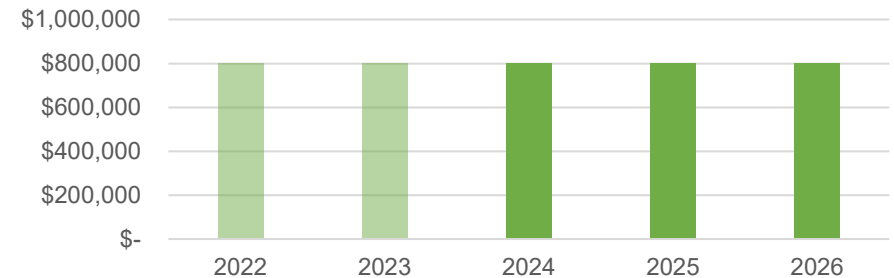
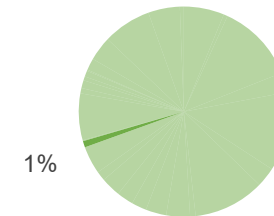
This program supports Part 139 Airport Certification through grading and drainage improvements within runway safety areas, airfield pavement marking modifications, and other miscellaneous airside projects that are too small to accomplish independently or arise unexpectedly.



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.

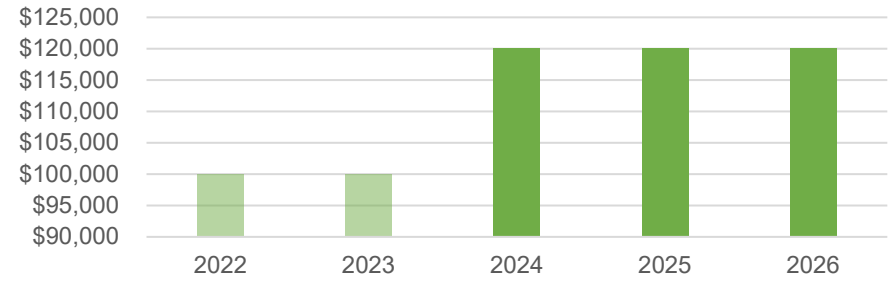
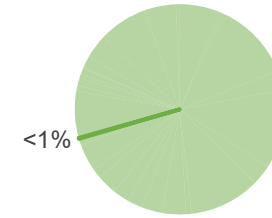


26 – TERMINAL ROADS/LANDSIDE

TUNNEL/BRIDGE INSPECTIONS

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.

\$120,000

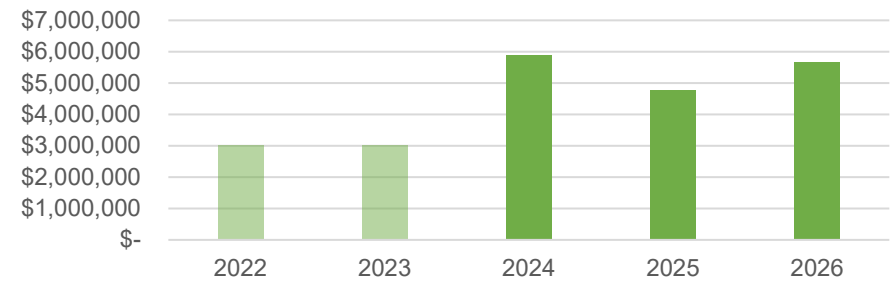
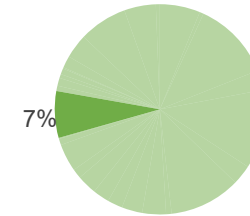


31 – PARKING

\$5,500,000

PARKING STRUCTURE REHABILITATION

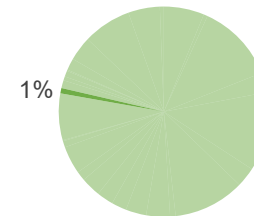
This is an annual program to maintain the integrity of the airport’s multi-level parking structures. Projects typically include concrete repair, joint sealant replacement, expansion joint repairs, concrete sealing, railing refinishing, and lighting improvements.



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.

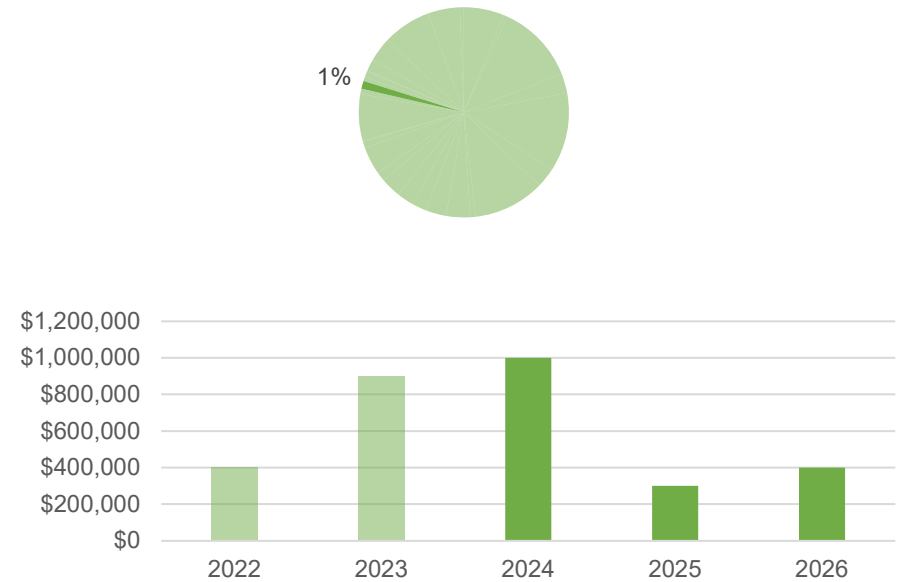


39 – PUBLIC AREAS/ROADS

CONCRETE JOINT REPAIR

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

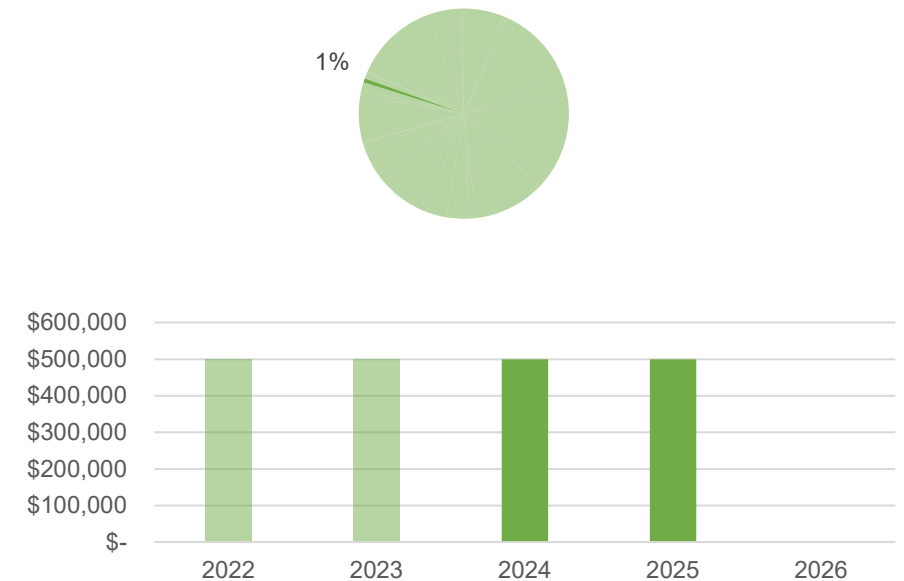
\$1,000,000



LANDSIDE PAVEMENT REHABILITATION

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.

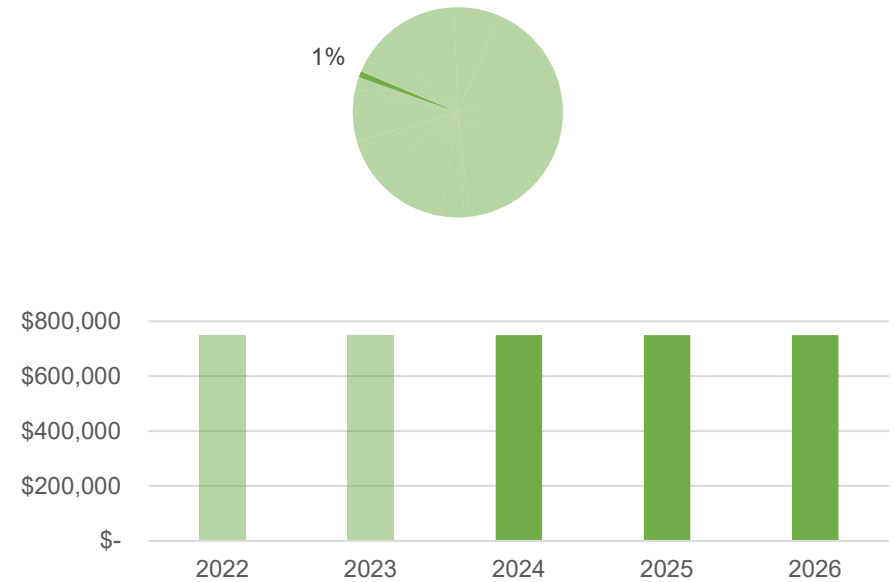
\$500,000



LANDSIDE UTILITY REHABILITATION

\$750,000

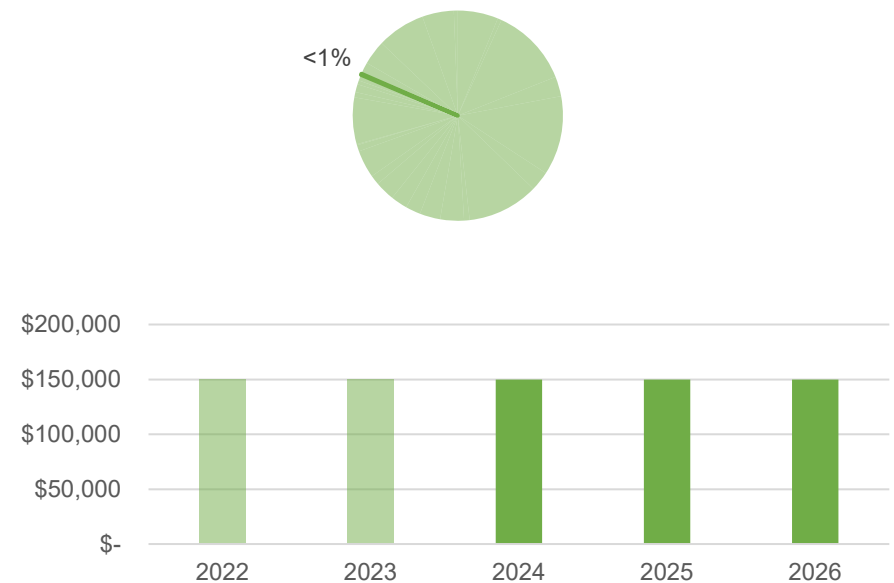
Each year there are numerous landside utility projects that are beyond the resources of MAC's staff and operating budget to accomplish. These projects are prioritized annually and completed with either a series of contracts or purchase orders. Electric power, sanitary sewer, storm sewer and watermain 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.

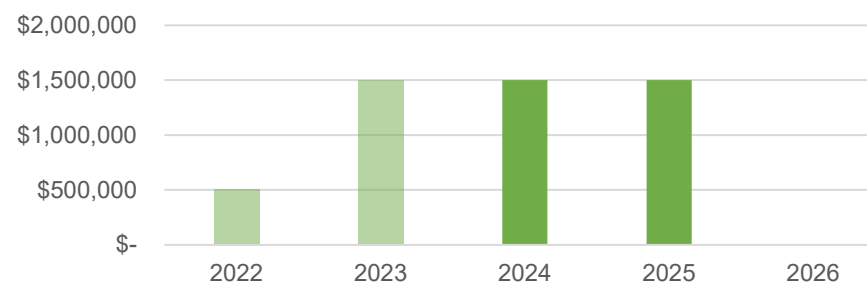
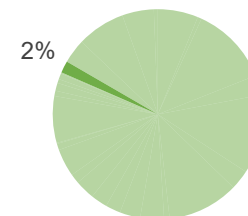


46 – HANGARS AND OTHER BUILDINGS

\$1,500,000

CAMPUS BUILDING REHABILITATION PROGRAM

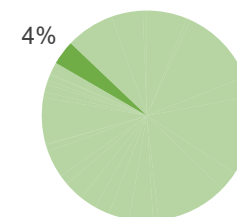
Continual maintenance of MAC non-terminal buildings is imperative in providing a stable infrastructure and meeting the MAC’s sustainability goals. Age and weather contribute to building deterioration, mold and other health issues. Building envelope issues include curtain wall systems, glazing, sealant 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

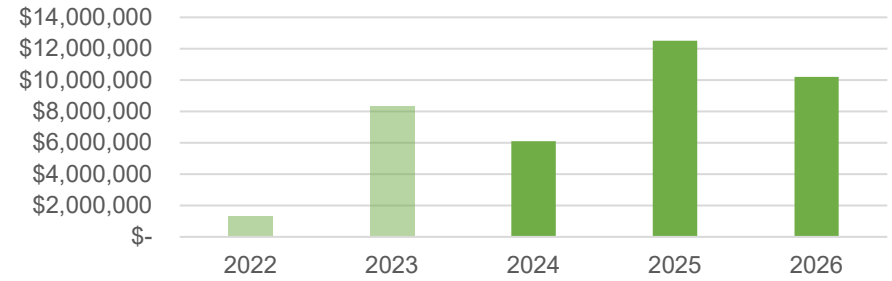
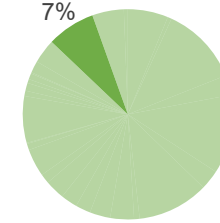
This is an ongoing program of preventative maintenance activities such as crack sealing, surface treatments and resurfacing of parking lots. This program effectively slows, deterioration rates, extends service life and delays need for total reconstruction of parking lot pavements is required. Inspection of pavements and appurtenances determines what areas are to be prioritized for rehabilitation under each year’s project. The planned 2024 project area will be assessed for need and adjacent project coordination early in the year.



MSP CAMPUS BUILDING ROOF REPLACEMENTS

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.

\$6,100,000

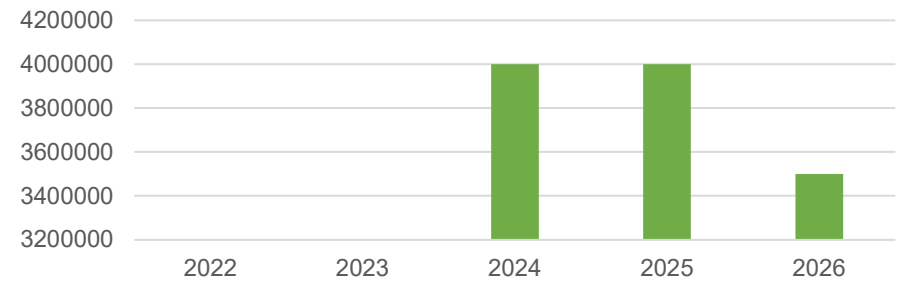
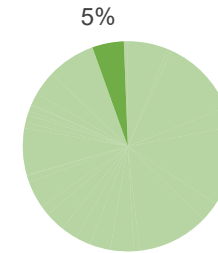


56 – TRADES/MAINTENANCE BUILDINGS

SUMP PUMP CONTROLS

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

\$4,000,000

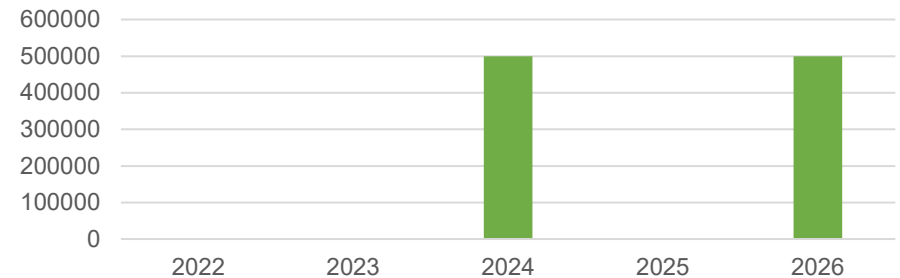
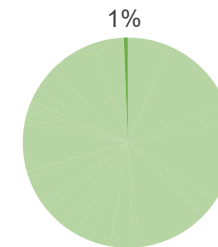


70 – GENERAL OFFICE/ADMINISTRATION

GO BUILDING IMPROVEMENTS

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.

\$500,000

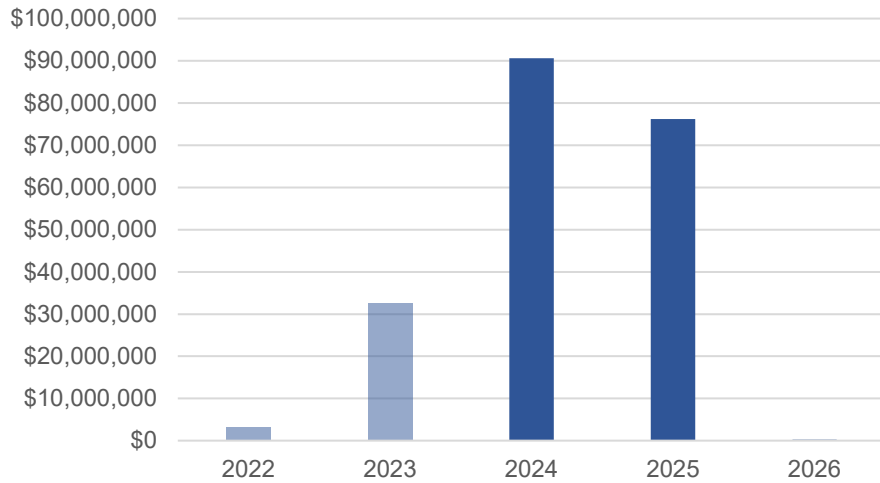




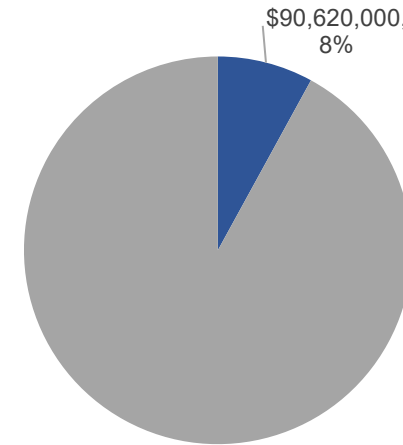
MSP TENANT PROJECTS

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.

MSP Tenant Projects



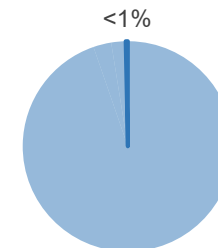
2024 MSP Tenant Projects



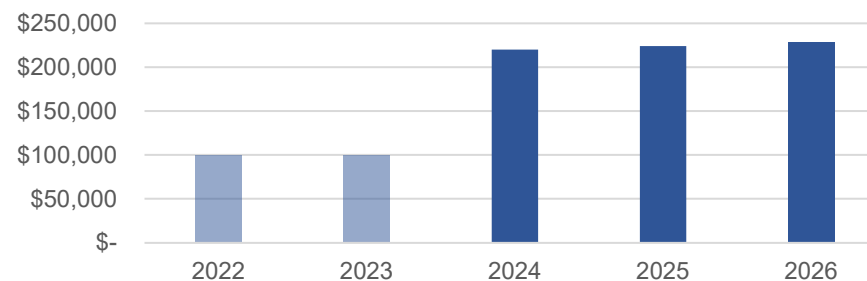
10 – TERMINAL 1

CONCESSIONS UPGRADES/REVENUE DEVELOPMENT AND STRATEGIC PARTNERSHIPS

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.

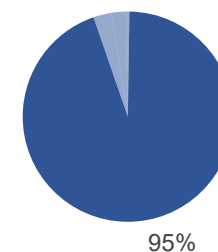


\$220,000

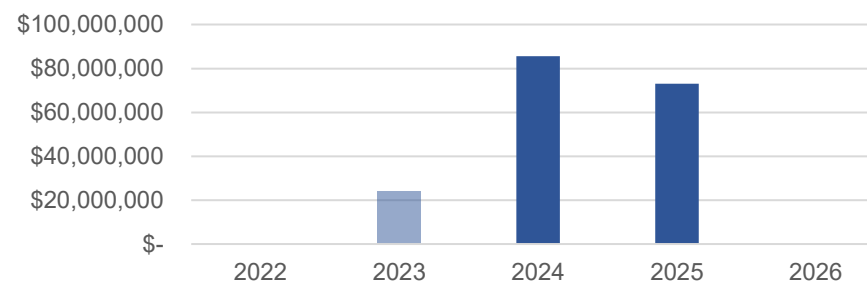


CONCOURSE AND GATEHOLD MODERNIZATION

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.



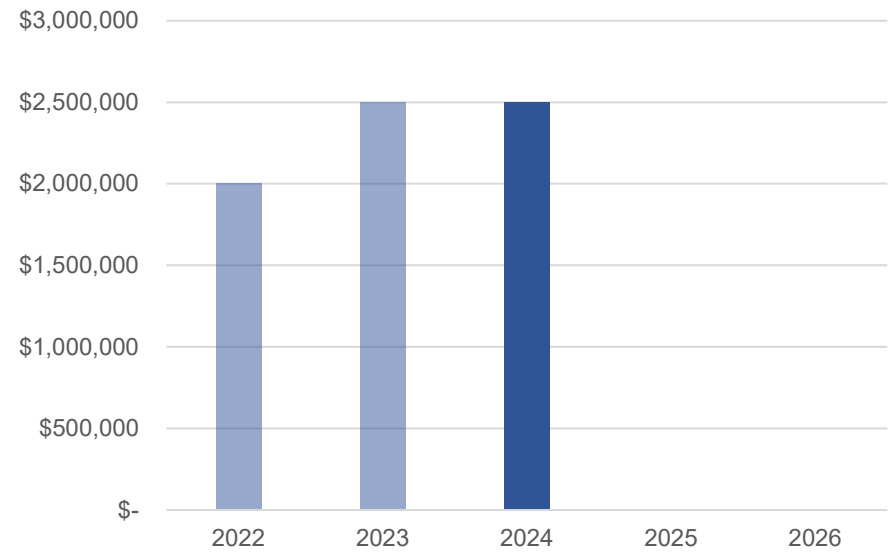
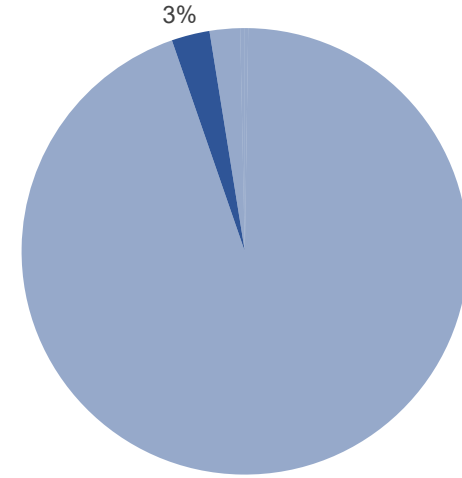
\$85,600,000



TERMINAL 1 PRE-CONDITIONED AIR (PCA)

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.

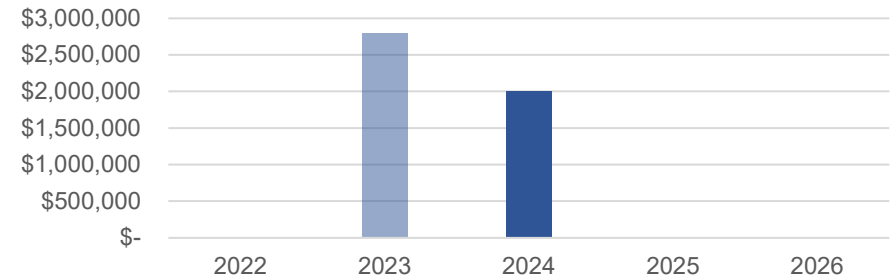
\$2,500,000



36 – TERMINAL 2

TERMINAL 2 CONCESSIONS REDEVELOPMENT

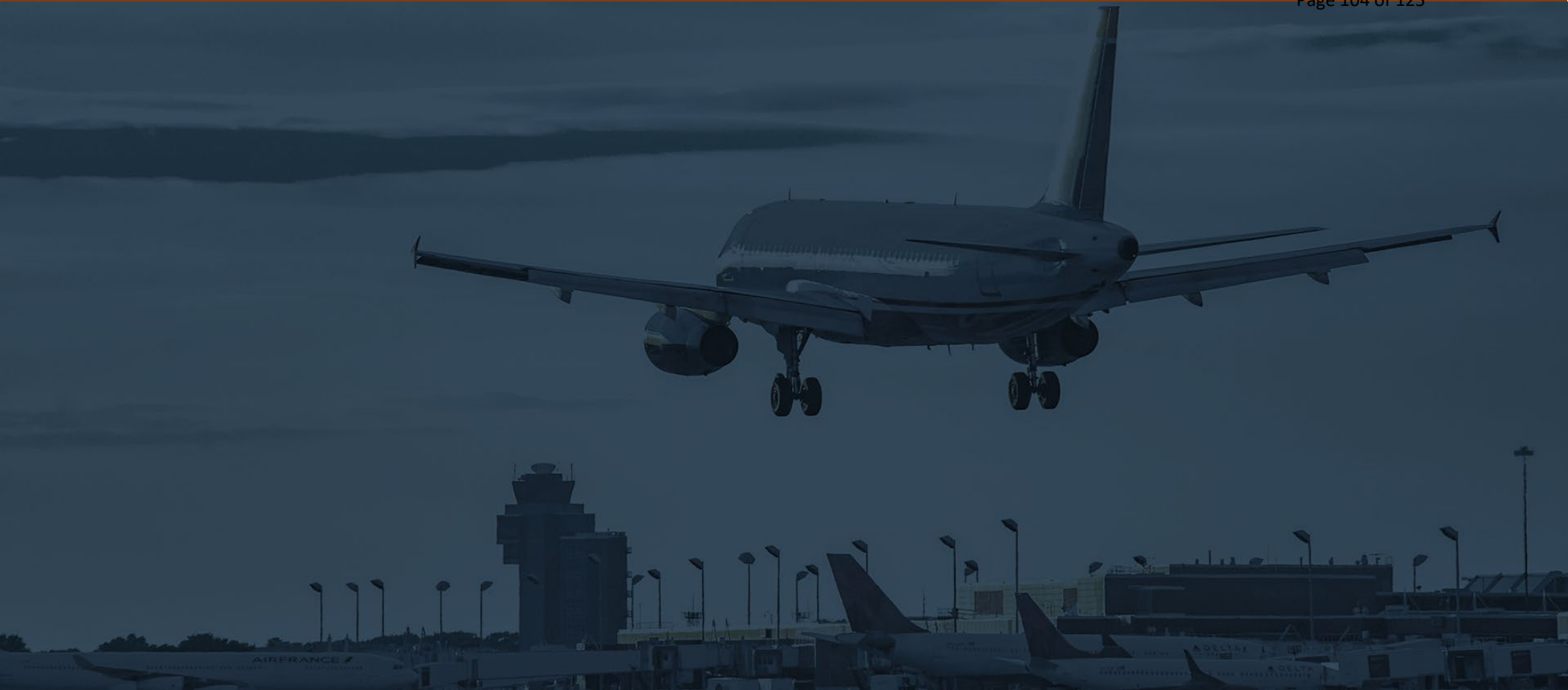
This project will support concessions spaces at the central portion of Terminal 2 and be coordinated with lease rebidding.



TERMINAL 2 MULTIPURPOSE FACILITY (STUDY)

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.

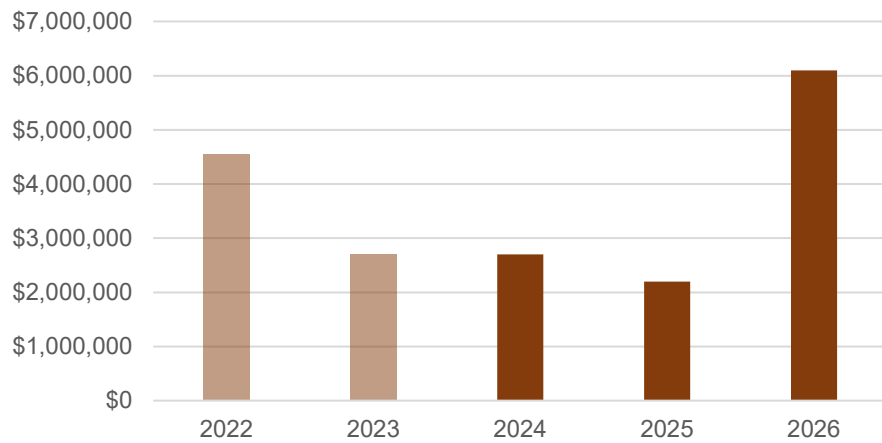




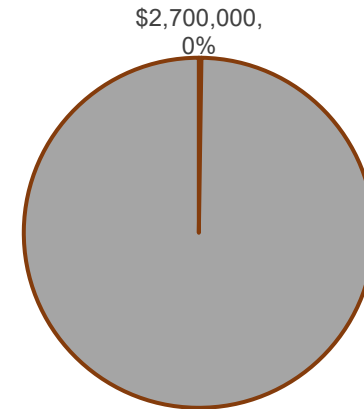
RELIEVER AIRPORTS LONG TERM COMPREHENSIVE PLAN PROJECTS

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.

Reliever Airports Long Term Comprehensive Plan Projects



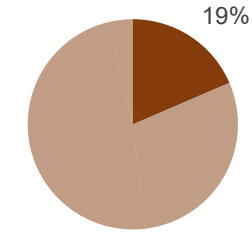
2024 Reliever Airports Long Term Comprehensive Plan Projects



81 – ST. PAUL

STP AIRPORT LAYOUT PLAN

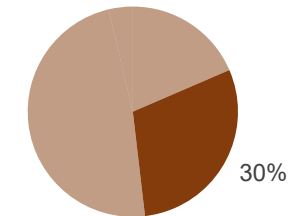
The new ALP will show current conditions and any development proposed in the Long-Term Comprehensive Plan (LTCP). A portion of the budget will be used to acquire new AGIS base mapping to create a new Airport Layout Plan (ALP) set that complies with current FAA guidelines and criteria.



\$500,000

STP LONG TERM COMPREHENSIVE PLAN

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.



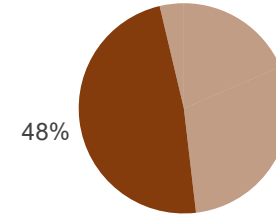
\$800,000

84 – FLYING CLOUD

\$1,300,000

FCM OBSTRUCTION REMOVAL (HANGARS)

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

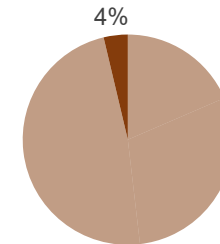


85 – CRYSTAL

\$100,000

MIC AIRPORT LAYOUT PLAN

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

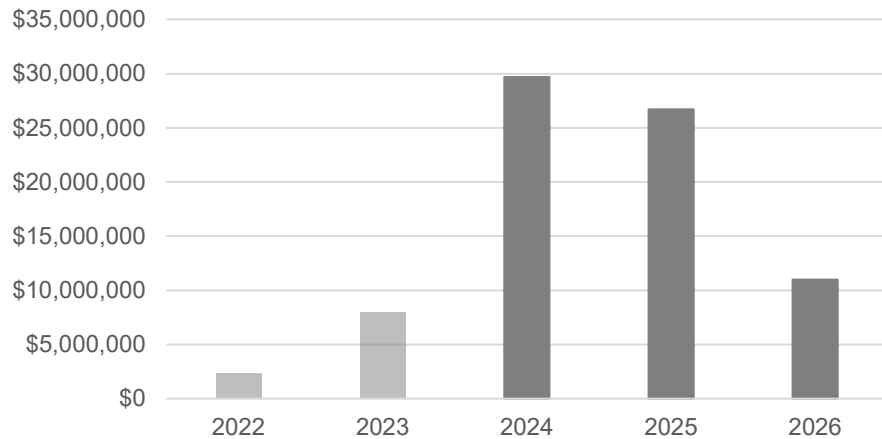




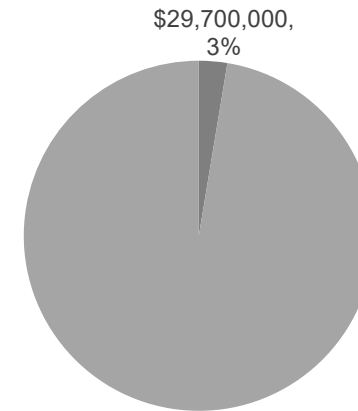
RELIEVER AIRPORTS MAINTENANCE/FACILITY UPGRADE PROJECTS

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.

Reliever Airports Maintenance/Facility Upgrade Projects



2024 Reliever Airports Maintenance/Facility Upgrade Projects

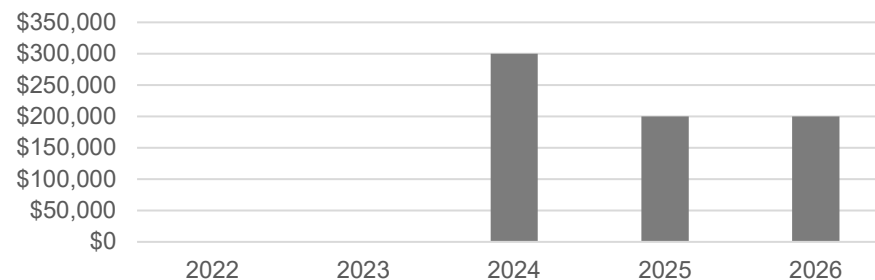
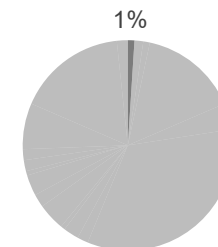


80 – RELIEVER AIRPORTS

RELIEVER AIRPORTS SECURITY FENCING, GATES & LIGHTING

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. In 2024, this program will also address wetland coordination associated with this work.

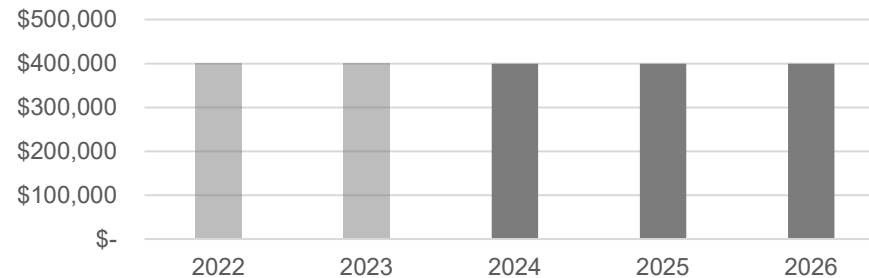
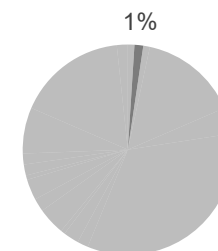
\$300,000



RELIEVERS BUILDING MISCELLANEOUS MODIFICATIONS

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.

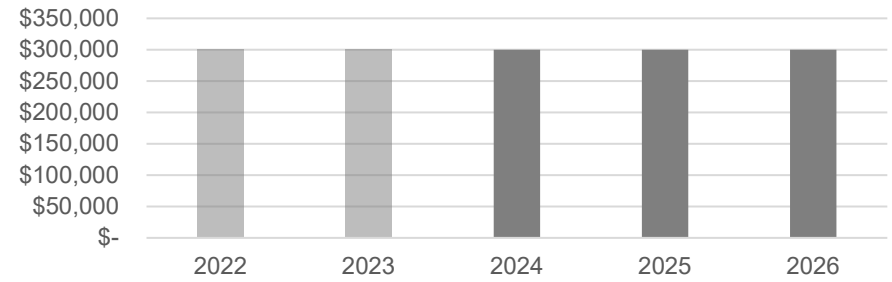
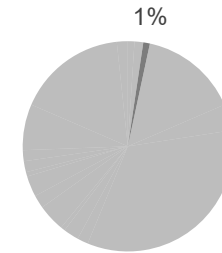
\$400,000



RELIEVERS PAVEMENT REHABILITATION MISCELLANEOUS MODIFICATIONS

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.

\$300,000

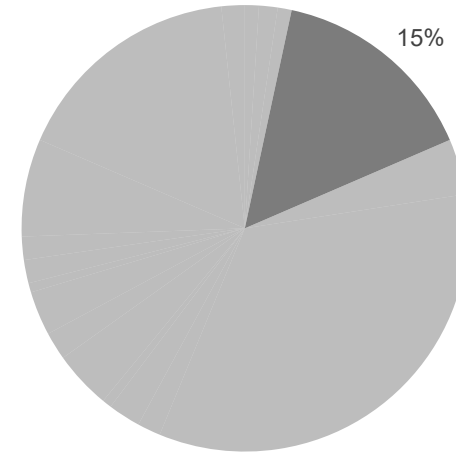


81 – ST. PAUL

\$4,500,000

STP CUSTOMS AND BORDER PROTECTION GENERAL AVIATION FACILITY (GAF)

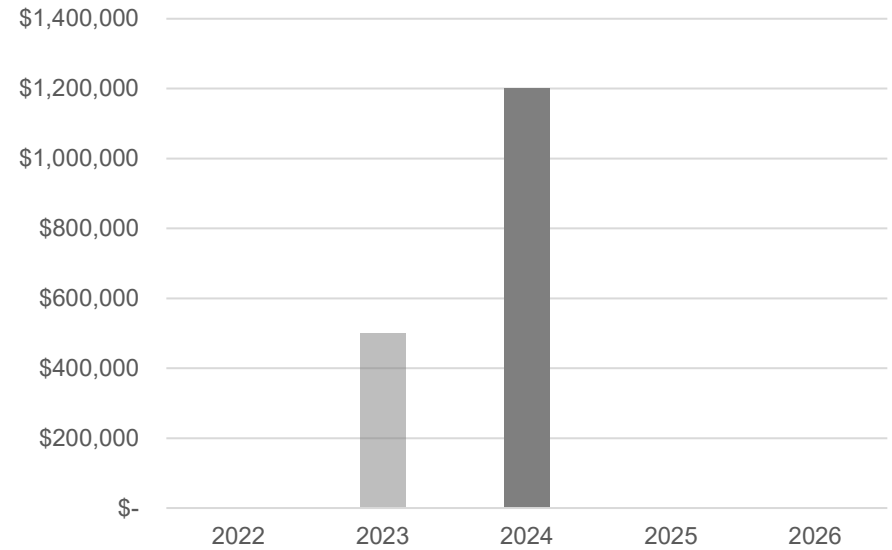
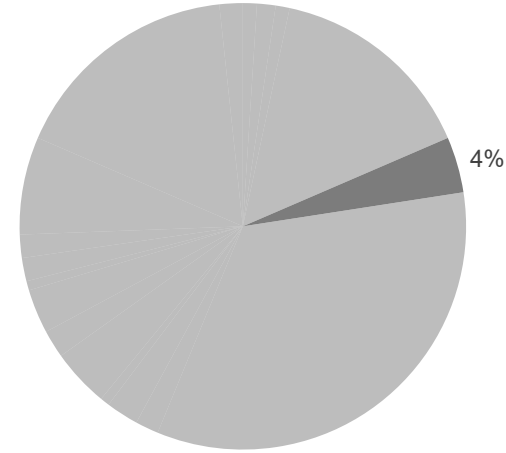
Customs and Border Protection (CBP) currently operates at STP out of a small space in the terminal building. The existing facility does not meet the requirements for space or security. Due to the restrictions of the existing space passengers generally remain on the aircraft for the customs screening process. A secure facility separate from other functions has been requested. This facility will meet current CBP guidelines, including plans for sizing of the facility. The new facility will include adequate secure space for pre and post processing of passengers. The facility is expected to handle between 100-150 flights annually, with staff traveling to STP from MSP to provide screening for flights.



STP LED EDGE LIGHTING UPGRADES

\$1,200,000

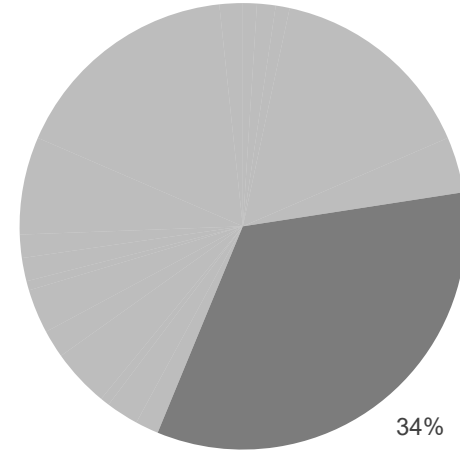
Airfield guidance signs along Taxiways A and L that will be included in this project have reached the end of their useful life, have become costly to maintain and repair, and in many cases replacement parts are no longer available. The new signs will be LED and meet current standards for message, size, and location.



STP RUNWAY 14-32 RECONSTRUCTION

\$10,000,000

This project will include reconstruction of the area of Runway 14/32 that was not previously reconstructed in 2016. The pavement has reached the end of its useful life is experiencing large cracks and is in need of reconstruction to restore the surface to a smooth, even condition and improve the overall operating conditions. Storm sewer and draitile systems associated with the project area would also be included in the reconstruction. The runway edge lighting system was replaced in 2022, so minimal electrical items would be included with the project focusing on the in-pavement lights located at the intersections of crossing runways and taxiways.

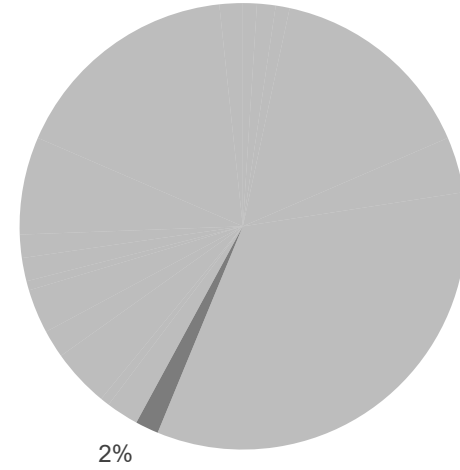


82 – LAKE ELMO

\$500,000

21D EQUIPMENT STORAGE BUILDING

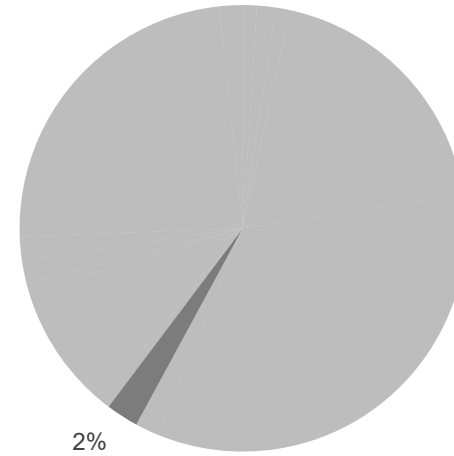
This project includes the construction of a MAC storage building for the containment of airfield maintenance equipment.



21D NORTH SERVICE ROADS REHABILITATION

\$700,000

This project will include reconstruction of the service road on the north side of the airport. The pavement has reached the end of its useful life and is in need of reconstruction to restore the surface to a smooth, even condition and improve the overall operating conditions. The project limits will include the service road from Manning Ave to Osprey Lane, approximately 3300' x 24'.

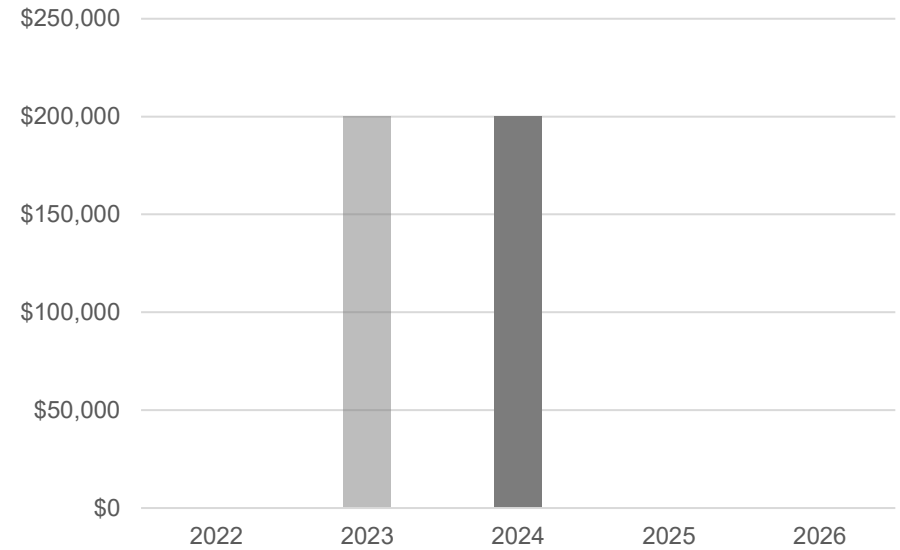
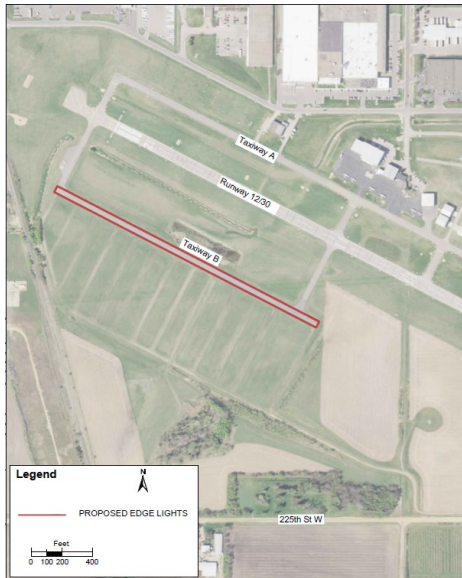
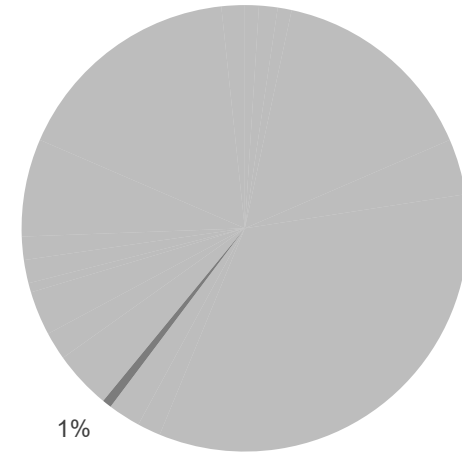


83 – AIRLAKE

200,000

LVN LED EDGE LIGHTING

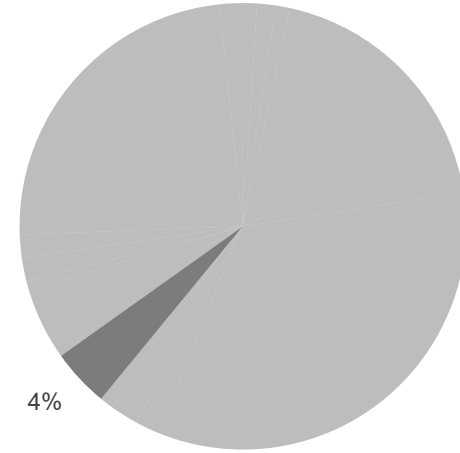
This project will include installation of LED edge lighting on Taxiway B. Traffic in the South Building Area has significantly increased with recent hangar construction. The addition of taxiway edge lighting will improve safe operations during daytime and nighttime operations. The taxiway edge lighting will be added to areas of Taxiway B that are not intended to be impacted by the future runway improvements projects



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.

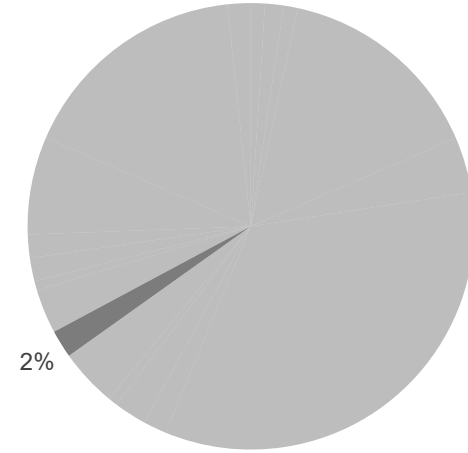


84 – FLYING CLOUD

\$600,000

FCM AIRPORT ACCESS ROADS AND TANGO LANE

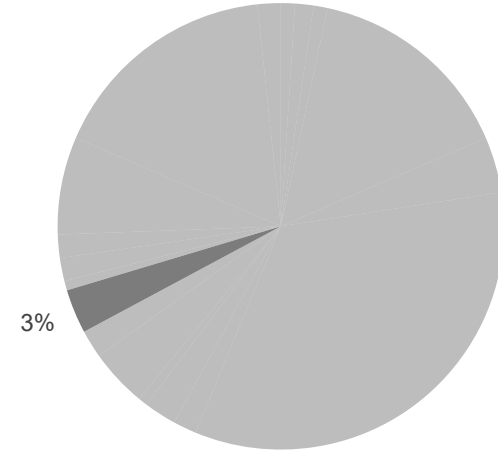
This project includes pavement rehabilitation of Airport Access Roads and Tango Lane in the north building area of the airport. Work may consist of milling, pavement repairs, bituminous pavement, pavement marking and miscellaneous items.



FCM EXECUTIVE AVIATION/MAC MAINTENANCE APRON

\$950,000

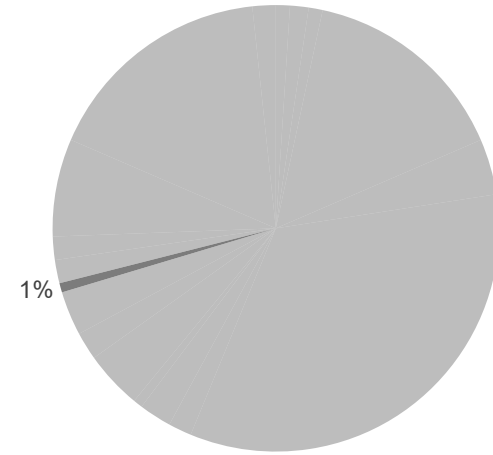
This project will provide a mill and overlay of the MAC owned apron near the Executive Aviation facility and the nearby taxiway connector. This project will also include pavement marking.



FCM RUNWAY 10R-28L CRACK SEALING

\$200,000

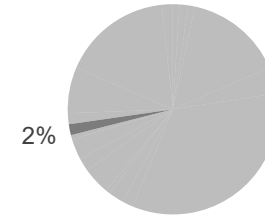
This project will repair cracks to prolong usability until pavement rehabilitation is completed in a future year.



FCM 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.

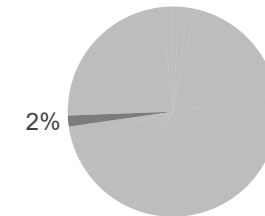


85 – CRYSTAL

\$500,000

MIC UNDERGROUND FUEL STORAGE TANK REPLACEMENT

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.

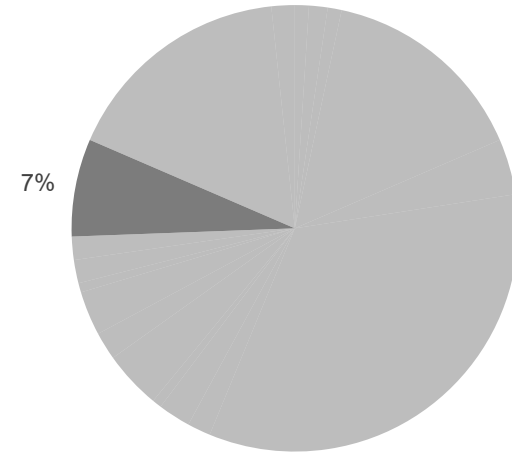


86 – ANOKA COUNTY – BLAINE

\$2,100,000

ANE AIRPORT RD AND GA BLVD PAVEMENT RECONSTRUCTION

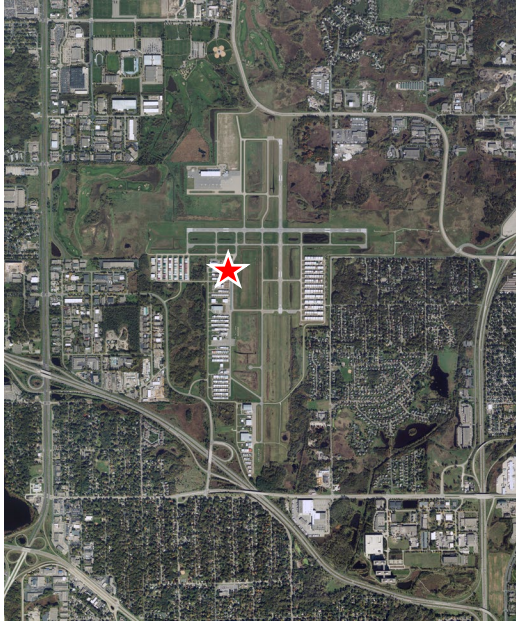
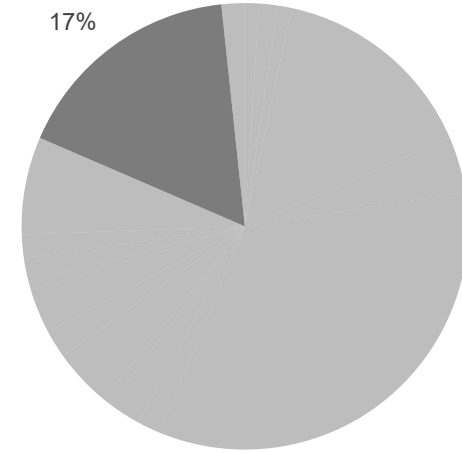
This project will restore the service roads on the west side of the airport, including Airport Road and General Aviation Blvd. The pavement has reached the end of its useful life and is in need of reconstruction.



ANE EQUIPMENT STORAGE AND MAINTENANCE BUILDING

\$5,000,000

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 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.

