9. IMPLEMENTATION PLAN

The implementation plan describes project relationships and triggers (qualitative or quantitative), documenting a demand-based implementation of the facilities and changes necessary to meet future need over the planning horizon. The Capital Improvement Program (CIP) ultimately demonstrates the financial feasibility of the projects identified as needed to meet demand over the planning horizon.

This section outlines the implementation plan and its sequence and schedule of projects, as recommended by the MPU, through the end of the planning horizon (2040). The projects identified in this section reflect facilities needed to satisfy demand in the baseline scenario of the Forecast of Aviation Activity. Facilities that would satisfy demand in the high-demand scenario or those anticipated to be needed beyond the 2040 planning horizon are included in the phased implementation presented in this section. Section 10, Financial Analysis, evaluates the CIP and financial plan, as well as the development of projects in the implementation plan.

9.1 FACTORS AFFECTING IMPLEMENTATION AND PHASING

The implementation plan is based on demand and the need to provide additional facility capacity over the planning horizon. Projects should be implemented with adequate time to efficiently serve growing demand. Airport priorities and operational policies can drive the optimization of facility utilization, influencing the scope and timing of future development, potentially altering the timing of development actions by allocating available capacity in a manner that optimizes and balances the use of existing facilities.

The ability to time implementation decisions correctly requires an understanding of the factors that trigger facility development and a recognition of regulatory changes or policy implications. It also requires an organizational structure and process to implement project planning and construction when demand dictates. The timing of necessary environmental processing should also be considered to ensure project implementation is not adversely impacted.

In addition to the factors previously listed, key considerations affect implementation and phasing:

Demand

In some cases, future project development depends on Airport demand. Section 4, Demand Capacity and Facility Requirements, presents MKE's facility requirements. These requirements need to be met for each PAL or MPU horizon. For example, in the first five years of the MPU, only a portion of the facilities in the South or West Cargo development is required; therefore, development is expected to include two phases over the span of 10 years. Demand may fluctuate depending on the economy and fleet mix changes. The effect can either expedite or delay the timing of certain projects.

Relocation and Replacement of Displaced Facilities

Some facilities will be required to relocate to provide space for other projects. For example, the four corporate hangars located south of the existing parking garage must be relocated in the first five years to allow subsequent development of the South Parking Garage. These will be relocated to the northeast GA area.

Funding

Affordability of Airport projects is an important factor influencing implementation schedules. Section 10, Financial Analysis, defines potential funding sources and summarizes changes to debt structure, fees, and rates and charges. Ultimate implementation may change as alternative funding or priorities may emerge or financial constraints develop.

Priorities

The implementation plan provides a framework for development and a demand-driven approach to project sequencing and fulfilment. Airport administration can determine alternate paths for project implementation, considering different priorities. Factors such as aviation market trends, local and national economic conditions, and development prioritization can affect project timing and dependencies.

Enabling Projects

To complete certain MPU projects needed to meet forecast demand, project elements enabling the implementation of some MPU projects will be required. These projects may not be demand-driven but required to modify infrastructure to ensure those projects needed to meet demand are able to be undertaken. Similarly, facilities displaced by MPU projects will be replaced or relocated to not impact current functions of the Airport or tenant facilities. Replacements or relocations will only be implemented as the need for demand-driven projects arises. Timing of relocation or replacement will ensure impacted facilities are replaced to ensure minimized impact on current Airport operations and tenants.

9.1.1 REGULATORY REQUIREMENTS AND TECHNOLOGICAL CHANGES

The FAA recently released changes to FAA AC 150/5300-13B, *Airport Design*, which may impact the implementation and spacing/configuration of certain airfield elements. Facility planning conducted under this MPU was performed using guidance in FAA AC 150/5300-13A, *Airport Design*, over most of the planning process. As projects approach implementation, the current guidance should be considered, and necessary adjustments should be made during the design phase of development. Regulatory changes can also alter the scope or configuration of recommended improvements or, alternatively, introduce the need for previously undocumented or undefined improvements. Technological changes can also influence the specific facility requirements under consideration, with the potential to alter the size, capacity, or configuration of the specific improvement.

9.1.2 GENERAL CRITERIA FOR PLANNING IMPLEMENTATION

Several criteria should be considered when defining the schedule and phasing of future development projects:

- **Project Implementation Timing** – This criterion includes consideration of the necessary planning refinements, and also includes obtaining required regulatory reviews and approvals, coordinating with appropriate stakeholders, analyzing financial requirements, and undertaking final design and construction to ensure the development project is in place and operational to meet demand. On many major projects, the time for this overall process, through project delivery, can span several years or considerably longer if full federal environmental review under NEPA is required.
- **Minimize Operational Impacts** – This criterion includes minimizing gate or tenant impacts, minimizing airfield closures to avoid unnecessary or preventable airfield congestion and delay, maintaining roadway and parking facility accessibility, maintaining an acceptable LOS for Airport tenants and users, and minimizing passenger inconvenience and potential confusion.

- **Maintain a Logical Sequence of Development** – Development projects should be configured with consideration given to further long-term development, as well as protecting the flexibility of future options and minimizing the potential for future facility relocations or impacts.

9.1.3 IMPLEMENTATION INDICATORS

Various development projects will be triggered by certain levels and characteristics of activities. These "indicators" signal the impending need for additional or modified facilities given existing demand/capacity relationships. Likewise, improvements to certain Airport facilities can trigger subsequent improvements to maintain the desired balance among the capacities of airfield, terminal, landside, and support facilities.

Airfield

Several indicators can signal the need for additional airfield capacity. The most prominent indicators are average annual aircraft delay and ASV. When the Airport reaches a defined level of delay, planning for additional airfield capacity should begin. Similarly, the FAA expects that as an airfield approaches 65 percent of ASV, planning for additional capacity will commence.

Safety enhancements, including the resolution of defined hot spots, adherence with FAA criteria, and implementation of operational restrictions, may also drive the timing and sequence of certain airfield projects.

Terminal and Gates

The timing for terminal/gate expansion or development will be based on airline demand for additional facilities, technology changes that influence passenger processing, the Airport use and lease policies, and the desired LOS for customers. Indicators related to terminal capacity, including excessive delays in passenger processing (e.g., security screening), reduced passenger LOS (congestion, extended baggage delivery times, etc.), and increased levels of sustained gate, may also influence project implementation timing.

Public Parking

The primary indicator for parking development is parking occupancy during peak periods. Other indicators may include rate of growth, type of growth, and the enhancement of other forms/modes of transportation to the Airport. Airport management priorities and operating policies have bearing on the indicators for additional parking development, particularly as off-Airport parking facilities or alternative access modes may emerge. The condition of the existing parking garage and the ability to rehabilitate sections as needed will also serve as an indicator relative to accommodating parking demand on-airport.

General Aviation

Tenant demand typically signals the need for additional GA facilities. FBO business models, investments, and customer base can influence the demand for GA facility growth, as can corporate aviation users of the Airport. Similarly, growth in the number of GA aircraft operations and based aircraft can indicate the need to initiate planning for hangar or apron expansion. Expansion of GA facilities at the Airport will also be influenced by the amount of activity and demand accommodated by MWC, since MWC and MKE both constitute Milwaukee County's airport system.

Cargo

Cargo facility development is driven in part by tenant operations. Assessing the growth of indicators such as cargo tonnage, cargo aircraft operations, and fleet mix, the Airport can anticipate demand and planning for cargo tenant expansion at the Airport.

Support Facilities

Airline fleets and equipment, food service, GSE, maintenance activities, and other factors have the potential to influence the demand for aviation support facilities. Given the diversity of support facilities, there can be substantial variation in the associated development triggers. Consistent tenant communication and maintaining awareness of facility utilization, changes in tenant operations, and other metrics will help ensure the need for support facilities is identified with sufficient time for organized and efficient implementation.

9.2 ADDITIONAL STUDIES

When considering the implementation of facilities noted in the MPU, factors such as pavement and facility condition and useful life should be considered. Pavement condition and facility index studies can support the implementation of projects earlier or later than described in the implementation plan. The effects of facility condition should be considered when determining project implementation. Similarly, studies such as drainage or utility master plans can result in project prioritization that influences MPU project implementation.

9.3 PHASED IMPLEMENTATION PLAN

The projects identified in the implementation plan include general descriptions of the project, as well as the anticipated timing and project costs. The following subsections further describe the projects and the MPU horizons in which they are anticipated to take place.

9.3.1 SHORT-TERM PROJECTS (0 TO 5 YEARS)

Projects identified as short-term or near-term projects are necessary to meet forecast demand through the 2023 planning horizon. **Table 9-1** and **Exhibit 9-1** present the short-term MPU projects that are anticipated to be implemented by 2023 based on forecast demand.

Runway 1R-19L Decommissioning and Conversion to Taxiway (Project A1A and A1B)

The northern portion of the runway (19L end to Taxiway W) will be demolished, while the southern portion (Taxiway W to Taxiway S) will be converted to a temporary 75-foot taxiway with 25-foot shoulders. The width of the eastern and western segments of the runway will be reduced by 37.5 feet in each direction (total of 75.0 feet). All runway signs, lights, and NAVAIDs will be removed and replaced with revised taxiway lights, signs, and markings. Airfield signage will need to be updated to reflect the runway-to-taxiway conversion. Runway 1L-19R would be redesignated to Runway 1-19 following project implementation. Additional adjustments to runway edge lighting and signage (Runway 13-31 and Runway 7R-25L) are required.

Concourse E Redevelopment – Phases 1A and 1B (Project T1A and Project T1B)

Project T1A consists of constructing the initial phase of the Concourse E redevelopment (approximately 50,000 square feet), as well as adding two new fully functional gates and a third aircraft parking position for passenger deplanements, new two-lane SSCP, and FIS and CBP facilities. The project includes demolition of existing Concourse E and apron, drainage adjustments, sitework, and terminal equipment, utilities, and hydrant fuel system modifications.

Project T1B consists of the construction of the second subphase of Concourse E redevelopment, creating a holdroom for one aircraft (one fully functional new gate). This project converts the deplanement-only gate to a fully functional arrival and departure gate.

ER PLAN DEVELOPMENT PROJECTS (0 TO 5 YEARS)

	TIMING [1]	TRIGGER	PREDECESSOR	SUCCESSOR
	2021	Demand/Tenant Request		
mmissioning; Conversion to Taxiway	2022	Pavement Condition		A1B
arking Revision (Decommissioning of Runway 1R-	2022	Results from Decommissioning of Runway 1R-19L	A1A	
A Campus - Phase 1	2022	Demand	A5 P2 GA2	GA5
ervice Road Relocation – Northeast Quadrant	2022	Compliance with FAA Standards and Access Improvements	P2	GA1 GA3 GA4
ment – Phase 1	2022	Demand		C2
ant GA Campus Taxiway	2022	Enable Aircraft Access		GA1 GA3 GA4
pment – Phase 1A	2023	Current CIP		T1B T8
pment – Phase 1B	2023	Demand	T1A	T1C T7
Station Modification – Phase 1	2023	Road Condition: Enable North Deice Pad		A3-2
ement GA/Corporate Hangars in Northeast Hangar	2023	Replacement Facilities: Enable South Parking Garage	P2 GA2 A5	A4 GA5
tion	2023	Enable Future Northwest Quadrant GA Campus Development		GA7 TN7
ansion	2023	Demand/Tenant Request		
ft Parking Expansion	2023	Demand/Tenant Request		
torage Tanks and Employee Support Facility	2023	Tenant Request – Operational Efficiency		L1
etention Basin	2023	GA Development	P1 P2 A5 GA2	GA9
axiway R Realignment – Phase 1	2023	Demand and Pavement Condition – Existing South Pad		A7-2 A18A A18B
	2023	FAA Standards	A8-2	
Taxiway A4)	2023	FAA Standards		
struction – Phase 1	2023	Airfield Efficiency	CIP7-1 CIP7-2	A8-3 A8-4
Expansion – Phase 1	2023	Demand		T9B

of master plan projects, defined based on forecast demand. Actual activity growth (timing, magnitude, and characteristics) will influence the timing of project implementation.
port maintains a Capital Improvement Program that captures the predicted future capital development, maintenance of assets, renewal of aging facilities, integration of new technologies, and related improvements.

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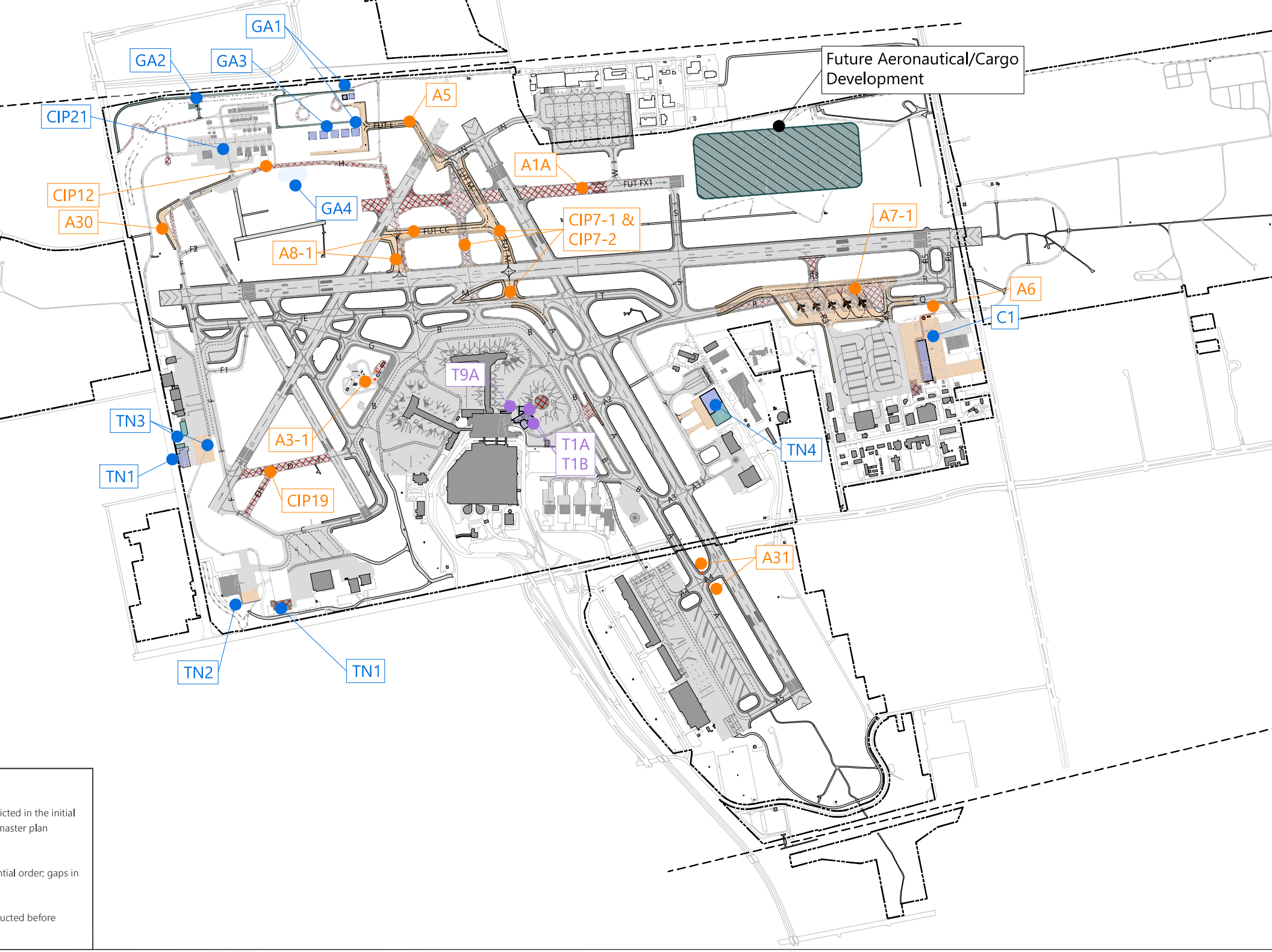

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lwaukee County, December 2021 (property line); Mead & Hunt, Inc., August 2019 (general aviation, cargo, and support future facilities); Ricondo & Associates, Inc., June 2022 (airfield, terminal, and landside future facility layouts).

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General Aviation Access Road Relocation – Northeast Quadrant (Project GA2)

The existing GA access road will be relocated to eliminate encroachment on the RPZ of Runway 25R. The relocated access roadway will clear the RPZ to comply with FAA standards. The new access road will be 5,100-linear-feet long and 25-feet wide. This project includes relocation of the GA access gate, construction of a vehicle staging area, lighting, marking, and drainage improvements.

Northeast Quadrant General Aviation Campus – (Project GA1)

The initial phase of development in the Northeast Quadrant GA Campus development consists of construction of seven hangars, associated aprons, and connections to taxilane pavement. Tenant and user vehicle parking areas and connections to access roads are included.

South Cargo Development – Phase 1 (Project C1)

Cargo facilities will be constructed in the MKE Regional Business Park, adjacent to the South Ramp. Phase 1 of the cargo facilities includes a cargo building, aircraft parking apron, landside cargo truck maneuvering and docking, vehicle parking and circulation, and access to College Avenue. Phase 1 requires demolition of buildings and infrastructure in the MKE Reginal Business Park to prepare the site for the construction of cargo facilities. A taxilane connecting to Taxiway R4 will be striped on the existing South Ramp to facilitate aircraft movements to the new apron areas.

Aircraft Fuel Truck Fill Station Modification – Phase 1 (Project A3-1)

This project entails the relocation of two Remote Transmitter/Receiver (RTR) towers and one support building (located between Taxiway E and Taxiway V) to accommodate the future adjacent deice pad.

Replacement General Aviation / Corporate Hangar Construction (Project GA3)

The four terminal-area corporate hangars, located south of the existing parking garage, require relocation to allow the development of the future South Parking Garage. The four corporate hangars will be constructed in the Northeast Hangar Area to include hangar aprons, access taxilanes, landside parking, and an access roadway.

Northeast Quadrant General Aviation Campus Taxiway L (Project A5)

The Northeast GA Campus project includes a 50-foot-wide taxiway to support aircraft taxi movements between the Northeast GA Campus, Runway 31, and Taxiway N. The project includes sitework, signage, lighting, and marking, but it does not include interior taxilanes serving GA hangars.

Tenant Building Relocation (Project TN1)

This project encompasses the relocation of a tenant building from the West Ramp to the North Ramp. The existing building will be demolished, following construction of the replacement building and supporting landside parking areas.

Fixed Base Operator Aircraft Ramp Expansion (Project TN2)

The FBO ramp will be expanded west of the existing ramp. This project includes adjustments to the AOA fence, sitework, and utilities, as well as drainage adjustments. In addition, approximately 350 linear feet of a 12-foot blast fence will be constructed.

Fixed Base Operator Vehicle Parking Expansion (Project TN3)

This project encompasses the expansion of the FBO vehicle parking area. Vehicle parking will expand south of the existing FBO parking area. Lights and marking for the parking area will be included.

South Fixed Base Operator Facility (Project TN4)

This project encompasses the construction of a GA/FBO facility south of Taxiway Y, between the GRE facility and an existing (formerly Johnson Controls) hangar. Hangar apron, a taxiway connection to Taxiway Y, landside access, and parking will be constructed with this project. This project will also include sitework, lighting, signage, utilities, and marking. This project is currently under construction by a third-party developer.

Supplemental Glycol Storage Tanks and Employee Support Facility (Project A6)

The construction of the supplemental glycol storage and dispensing facility includes constructing a glycol tank and supporting infrastructure, as well as an employee support facility (restrooms, breakrooms, etc.), in the vicinity of the decommissioned military refueling facility adjacent to the South Ramp.

Northeast Quadrant Detention Basin (Project GA4)

This project encompasses the construction of a detention basin adjacent to the future Northeast GA Campus supporting development in this area. The detention basin will be approximately 1.5 acres (detention volume will be specified as detailed development plans emerge). This project includes sitework and grading, seeding and sodding, and drainage infrastructure.

South Deice Pad and Taxiway R Realignment – Phase 1 (Project A7-1)

This project encompasses the construction of the South Deice Pad and a portion of the Taxiway R realignment, as well as demolition of a portion of existing Taxiway R. Taxiway R will be demolished between Taxiway R4 and south of Taxiway S. Taxiway R3 will be demolished between Runway 1L-19R and the South Ramp. The demolition allows the construction of the South Deice Pad containing five ADG III positions. The deice pad will include two taxiways: realigned Taxiway R, designated as an ADG IV taxiway, east of the deice pad, and an ADG III bypass taxiway on the west side of the deice pad. The project will include a temporary taxiway between existing Taxiway R and future realigned Taxiway R, sitework, drainage, deice fluid runoff collection and detention system, lighting, signage, and marking.

Future Taxiway CC Construction – Phase 1 (Project A8-1)

This project encompasses the construction of a 75-foot taxiway (with 30-foot shoulders) parallel to and outboard of Runway 1L-19R. Phase 1 of the taxiway will be constructed between Runway 13-31 and realigned Taxiway M. The project includes the demolition and reconstruction of Taxiway K west of Runway 1L-19R. Taxiway K will be upgraded to a 75-foot taxiway with 30-foot shoulders and aligned perpendicular to Runway 1L-19R. This project includes sitework, lighting, signage, and marking adjustments.

Baggage Makeup Area Expansion – Phase 1 (Project T9A)

The existing baggage area will be expanded by approximately 3,500 square feet at the southeast side of the terminal building. Baggage handling equipment and installation are included as part of this project.

Taxiway F Realignment (Project A30)

This project entails the realignment of approximately 850 linear feet of Taxiway F pavement east of Runway 19R to align with current FAA standards. The realignment of Taxiway F will ensure aircraft can hold perpendicular to Runway 7L-25R, supporting pilot situational awareness.

Runway Guard Lights (Taxiway A4; Project A31)

The installation of runway guard lights at the intersection of Taxiway A4 and Runway 7R-25L is intended to support pilot situational awareness while operating on taxiways around the cargo apron and Runway 7R-25L. Installation of runway guard lights and appropriate pavement markings/signage will mitigate direct apron-to-runway access and enhance pilot awareness when maneuvering to/from the cargo apron. The project includes a new connection to the ATCT as this is the first installation of runway guard lights at the Airport.

Relevant Near-Term Capital Improvement Program Projects

In addition to the identified MPU projects, near-term development includes relevant airfield CIP projects. These projects are further described in the Airport's CIP. The following projects are anticipated to be constructed during the short-term planning horizon (0 to 5 years):

- Stormwater Master Plan Study (P1)
- Northeast Quadrant GA Campus Development Master Plan (P2)
- Taxiway A Extension Design (CIP 7-1)
- Taxiway A Extension Construction (CIP 7-2)
- Taxiways D and D1 Demolition (CIP 19)

9.3.2 MEDIUM-TERM PROJECTS (6 TO 10 YEARS)

Table 9-2 lists the demand-driven projects anticipated to be implemented or initiated in the medium-term. **Exhibit 9-2** presents the medium-term MPU projects that are anticipated to be implemented (operational) by 2028, based on the forecast of aviation activity.

Demolish Four Terminal-area Corporate Hangars and US Postal Service Facility (Project A4)

Four existing corporate hangars south of the terminal parking garage will be demolished, including demolition of hangar aprons and Taxiway P up to Taxiway B. The project also includes the demolition of the landside parking and access roads, as well as the demolition of the existing US Postal Service (USPS) facility and existing public access road connecting to Howell Avenue and the adjustment of AOA fencing.

Concourse D-E Connector - Phase 1 (Project T1C)

The connector walkway project consists of construction of the initial phase of the Concourse D-E connector development, adding one new gate. This portion of the connector walkway will include the expansion of circulation areas, holdrooms to support the new gate, and necessary amenities to support expanded terminal operations.

Aircraft Fuel Truck Fill Station Modification – Phase 2 (Project A3-2)

This project encompasses modification of the access and circulation roads within the fuel fill station located between Taxiway E and Taxiway V to accommodate future adjacent deice pad construction. Additional improvements include construction of access roadways and demolition of vehicle maneuvering area pavement.

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TER PLAN DEVELOPMENT PROJECTS (6 TO 10 YEARS)

	TIMING [1]	TRIGGER	PREDECESSOR	SUCCESSOR	EST
Corporate Hangars and USPS Facility	2024	Enabling Project (Terminal and Landside)	GA3	L1	
Modification – Phase 2	2024	Enable Central Deice Pad	A3-1 A9	A23	
molition	2024	Reduce Taxiway Complexity		A3-2	
– Phase 1	2024	Demand		T15 T16	
	2024	Demand		L5 T7	
ons	2024	Demand			
(IAB) Demolition	2024	Enables RON Apron Construction	T1A	A12	
ansion	2024	Demand	T8		
hase 1	2025	Demand	T1B	T1D	
Use Airline Check-in Facilities – Phase 1	2025	Demand		T12	
on – Phase 2 (North)	2025	Support Airfield Circulation		A8-3 A30	
	2025	Compliance with FAA Standards		A8-4	
L-19R Exit Taxiway)	2025	Capacity and Taxi Efficiency	CIP7-1 CIP7-2		
ous – Phase 2	2025	Demand	GA1 GA3	GA6	
Reconfiguration	2025	Demand/Efficiency			
provements: Extend/Reconfigure Service	2025	Demand/Efficiency			
	2025	Pavement Condition		A16-2	
	2026	Efficiency		T11A	
n	2026	Safety/Efficiency			
	2026	Safety/Efficiency			
D Gate Restriping and Fuel Pit	2027	Demand	T5		
	2027	Demand	A4 A6	L8 L10	
kway	2027	Supporting South Parking Garage	L1		
on – Phase 2 (South)	2027	Support Airfield Circulation	A8-1 A8-2	A8-4	
sion – Phase 2	2027	Demand	T9A	T9C	
xpansion	2028	Demand			
int – Phase 1	2028	Demand	T4	T11B	
Phase 2	2028	Demand	C1	C6 TN8	
our Exit Ramp Realignment	2028	Demand			
teiner Drive	2028	Access Control			
and Surface Parking Relocation	2028	Enable Concourse E Expansion	L2	T17	
	2028	Situational Awareness			

nt of master plan projects, defined based on forecast demand. Actual activity growth (timing, magnitude, and characteristics) will influence the timing of project implementation.
port maintains a Capital Improvement Program that captures the predicted future capital development, maintenance of assets, renewal of aging facilities, integration of new technologies, and related improvements.
nistration FBO – Fixed Base Operator RON – Remain Overnight SRE – Snow Removal Equipment SSCP – Security Screening Checkpoint USPS – US Postal Service
rt date of construction for the identified project.
onstruction costs, soft costs, and general contractor markups.

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lwaukee County, December 2021 (property line); Mead & Hunt, Inc., August 2019 (general aviation, cargo, and support future facilities); Ricondo & Associates, Inc., June 2022 (airfield, terminal, and landside future facility layouts).

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Taxiway U and Taxiway G Demolition (Project A9)

This project entails removal of Taxiway U between Taxiway V and Taxiway E, as well as removal of Taxiway G between Taxiway B and Runway 13-31. Additional project elements include adjustments to airfield signage, lighting, and markings that are needed to ensure appropriate wayfinding and aircraft circulation.

Implementation of Common-Use Airline Check-in Facilities – Phase 1 (Project T2)

This project entails the initial phase of the implementation of common-use airline check-in equipment and supporting technology to accommodate airline demand. This reconfiguration of the existing check-in facilities would take place in the current check-in area, and it allows for some minor reconfiguration of interior spaces.

Future Taxiway CC Construction – Phase 2 (North; Project A8-2)

This project would widen 250 feet of Taxiway F to 75 feet east of Runway 19R. It also includes demolition of Taxiway F2 south of Taxiway F and rehabilitation of a section of Taxiway F between the widened taxiway segment connecting to Phase 1 of Taxiway CC (Project A8-1) and Runway 7L-25R.

Taxiway N Realignment (Project A10)

This project reconfigures a portion of Taxiway N between Runway 7R-25L and the WI ANG apron. The Taxiway N realignment includes construction of a 75-foot-wide realigned portion Taxiway N to abut the WI ANG ramp west of the existing taxiway connection. Demolition of a segment of Taxiway N between the WI ANG ramp and Runway 25L is included.

Future Taxiway E2 (Runway 1L-19R Exit Taxiway) (Project A11)

This project focuses on the construction of a new taxiway that facilitates aircraft exits from Runway 1L-19R on future Taxiway E. This project consists of taxiway and shoulder pavement construction, as well as lighting, signage, and marking for the new taxiway. It includes the demolition of the Taxiway M highspeed taxiway and Taxiway K between Runway 1L-19R and Taxiway E.

Northeast Quadrant General Aviation Campus – Phase 2 (Project GA5)

This project includes construction of nine hangars in the Northeast Quadrant GA Campus, as well as connecting taxiway infrastructure and aprons. Landside elements include vehicle parking and circulation area construction.

Concourse C Security Screening Checkpoint Expansion – Phase 1 (Project T3)

Expanding the Concourse C SSCP includes the addition of one security screening lane, as well as expansion and renovation of office and support spaces. This project would be undertaken if development of the consolidated checkpoint project has not been initiated. This incremental expansion accommodates additional security screening needs as passenger volumes increase.

Concourse C-D Connector (Project T4)

The current terminal configuration does not allow for secure movement of passengers, employees, and tenants between concourses. This project would facilitate the movement beyond the security screening area without the need to rescreen while moving between concourses. Constructing 500 linear feet of terminal connector corridor facilities secure movements between Concourses C and D.

Concourse D Hammerhead Expansion (Project T19)

This project includes the expansion of the Concourse D hammerhead to include additional concessions and circulation spaces. The relocation of one passenger boarding bridge is included. The project also includes minor renovations to interior space and gate marking adjustments.

Concourse C and Concourse D Gate Restriping and Fuel Pit Modifications (Project T10)

This project includes the reconfiguration of the existing gate markings to accommodate an upgauged fleet (to B737 MAX 8 standards). This project also includes relocating eight fuel pits and restriping seven gates on Concourse C, as well as relocating five fuel pits and restriping five gates on Concourse D.

Centralized Security Checkpoint – Phase 1 (Project T11A)

This project includes construction of a centralized SSCP in the upper level of the terminal, including expansion of the floor plate to accommodate the Concourse C-D connector. It also includes an allowance for the renovation of existing terminal space, utility connections, and temporary corridors, as needed, to connect to existing concourses.

International Arrivals Building (IAB) Demolition (Project T8)

This project includes demolition of the existing IAB to facilitate the expansion of the RON apron in this area. Demolition of the IAB will allow for four additional RON parking positions to be constructed along the north side of the passenger terminal apron. It also includes the demolition of associated surface parking and circulation areas.

Remain-Overnight Ramp Expansion (Project A12)

In addition to an expanded aircraft hardstand/RON parking apron to accommodate four ADG III aircraft parking positions, this project also includes drainage, lighting, marking, and necessary AOA fencing to be constructed.

South Cargo Development – Phase 2 (Project C2)

This project includes the second phase of cargo development in the MKE Regional Business Park, adjacent to South Ramp, encompassing cargo building, aircraft apron, access taxilane, landside cargo vehicle maneuvering and docking, vehicle parking and circulation, and connection to College Avenue. The project includes the demolition of existing facilities, sitework, utilities, lighting, signage, marking, fence relocation, and connection to the existing Airport service road.

Milwaukee County Facilities Reconfiguration (Project S4)

This project includes the reconfiguration of Milwaukee County facilities within the Airport Maintenance Campus, encompassing service maintenance bays, a three-sided storage building, and Salt Dome. The project also includes demolition of existing facilities, utility adjustments, sitework, drainage, fencing, access gate, and internal vehicle circulation.

Airport Maintenance Campus Improvements: Extend/Reconfigure Service Road to South Ramp Area (Project S1)

This project entails the reconfiguration of the Airport Maintenance Campus; it includes abrasives storage, SRE storage, additional building storage, and airside maintenance fueling station construction, as well as a 30-foot-wide service road. This includes the demolition of existing facilities, utility adjustments, fencing, access gate, and internal vehicle circulation.

Snow Removal Equipment Staging Pad Construction (Project S2A)

This project includes construction of a new SRE staging pad west of existing Taxiway R to accommodate the staging of SRE without impacting Taxiway Y. Access would be provided through a new airside connection gate on the east side of the Airport Maintenance Campus.

Temporary SRE Staging Area (Project S2B)

If a temporary SRE staging pad is preferred prior to the construction of the SRE staging pad (Project S2A), then a portion of vacated Taxiway R can be converted into a temporary SRE staging area, including a connecting service road from the Airport Maintenance Campus. As Taxiway R is realigned, a section of pavement could be left to accommodate the staging of SRE vehicles. Access would be provided through short connections to the east side of the maintenance campus.

South Garage – Phase 1 (Project L1)

This project includes the construction of a six-level public parking garage south of Airport Entrance Road, including a 20-foot-wide temporary entrance from Airport Entrance Road, a temporary 20-foot-wide exit to Howell Avenue, and a revenue plaza. This project also includes Howell Avenue intersection improvements (signalization), a parking revenue control system, and single lane widening of Howell Avenue between the garage exit and the ramp to the Airport Entrance Road to support recirculation to the terminal.

South Garage Connector Walkway (Project L10)

This project includes the construction of an enclosed and environmentally controlled walkway connecting the future South Garage with the passenger terminal. This project includes utilization of existing sidewalk areas to the extent possible and the installation of a structure protecting passengers from weather. This project includes utility connections, signage, lighting, structure, and connection to existing terminal facilities.

Cell Phone Lot Relocation (Project L2)

For this project, the portion of the existing employee lot would be reconfigured to accommodate a new 55-space cell phone lot, as well as restriping and fencing. The current cell phone lot would move to the new location to facilitate the expansion of the Concourse E project.

Terminal Curbside Modifications (Project L3)

This project entails the implementation of improvements on the curbside to mitigate increasing congestion and demand, encompassing the installation of signalized pedestrian crossings, the reallocation of existing curb by mode, signage, and pavement markings.

Air Cargo Way and Airport Spur Exit Ramp Realignment (Project L4)

This project consists of the realignment of Air Cargo Way and the Airport Spur ramp to facilitate improved circulation in this area. The project includes relocation of the Air Cargo Way–Howell Avenue intersection, signage, and traffic signal installation.

Future Taxiway CC Construction – Phase 2 (South) (Project A8-3)

This project includes the construction of approximately 2,000 linear feet of a 75-foot taxiway parallel to and outboard of Runway 1L-19R, north of Runway 13-31, and 900 linear feet of a 50-foot taxiway to the Taxiway J Hold Pad area.

Taxiway F1 Demolition (Project A16-1)

This project entails the demolition of Taxiway F1. The project includes site work, drainage adjustments, lighting and signage adjustments, and marking relocation.

Security Access Gate on Hutsteiner Drive (Project L15)

This project includes installation of a security access gate on Hutsteiner Drive west of the Airport administrative offices to control vehicle movements between the Concourse C-D connector and the truck dock. This project includes a card-access control system and a swing arm gate.

Baggage Makeup Area Expansion – Phase 2 (Project T9B)

The existing baggage area on the southeast side of the terminal building will be expanded. Baggage equipment is also included in this project.

Commercial Vehicle Staging and Surface Parking Relocation (Project L5)

This project entails construction of the commercial vehicle staging curb, including temporary connections to the Airport Entrance Road. This project also includes relocation of public parking to the South Garage, demolition of the surface parking lot, utility adjustments, sitework, lighting, signing, and marking.

Taxiway B Centerline Shift (Project A32)

This project entails the relocation of approximately 1,000 linear feet of the existing Taxiway B centerline between Taxiway A1 and Taxiway R to increase separation from Taxiway A and remove operational restrictions in this area. The project also includes the relocation of taxiway edge lighting and shoulders, as well as restriping of the Airport service road.

9.3.3 LONG-TERM PROJECTS (11 TO 22 YEARS)

Table 9-3 lists the demand-driven projects anticipated to be implemented or start construction in the long-term. **Exhibit 9-3** presents the long-term MPU projects that are anticipated to be implemented (operational) by 2040 based on the forecast of aviation activity.

Concourse D-E Connector Phase 2 (Project T1D)

Adding one additional gate to the Concourse D-E connector supports the anticipated gate growth throughout the planning horizons. The construction of the initial phase of the Concourse D-E connector supports not only the additional gate need, but also the initial phase of creating the connector walkway to the base of Concourse D, which will facilitate secure passenger movement between Concourses D and E. Allowances for interior modifications, gate striping, one boarding bridge, air handling units, and utilities are included in this project.

Taxiway R Realignment – Phase 3 (Project A7-3)

This project entails the realignment of Taxiway R between Taxiway T and Taxiway A, including an extension to Taxiway Y. This project also includes demolition of existing Taxiway R north of Taxiway S.

Additional Concourse E Gates (Project T7)

Expansion of Concourse E will be supported by the addition of one gate to Concourse E. This addition supports the additional gate forecast to be needed to support airline operations on Concourse E. Allowances for interior modifications, gate striping, one boarding bridge, air handling units, and utilities are included in this project.

M MASTER PLAN DEVELOPMENT PROJECTS (11 TO 22 YEARS)

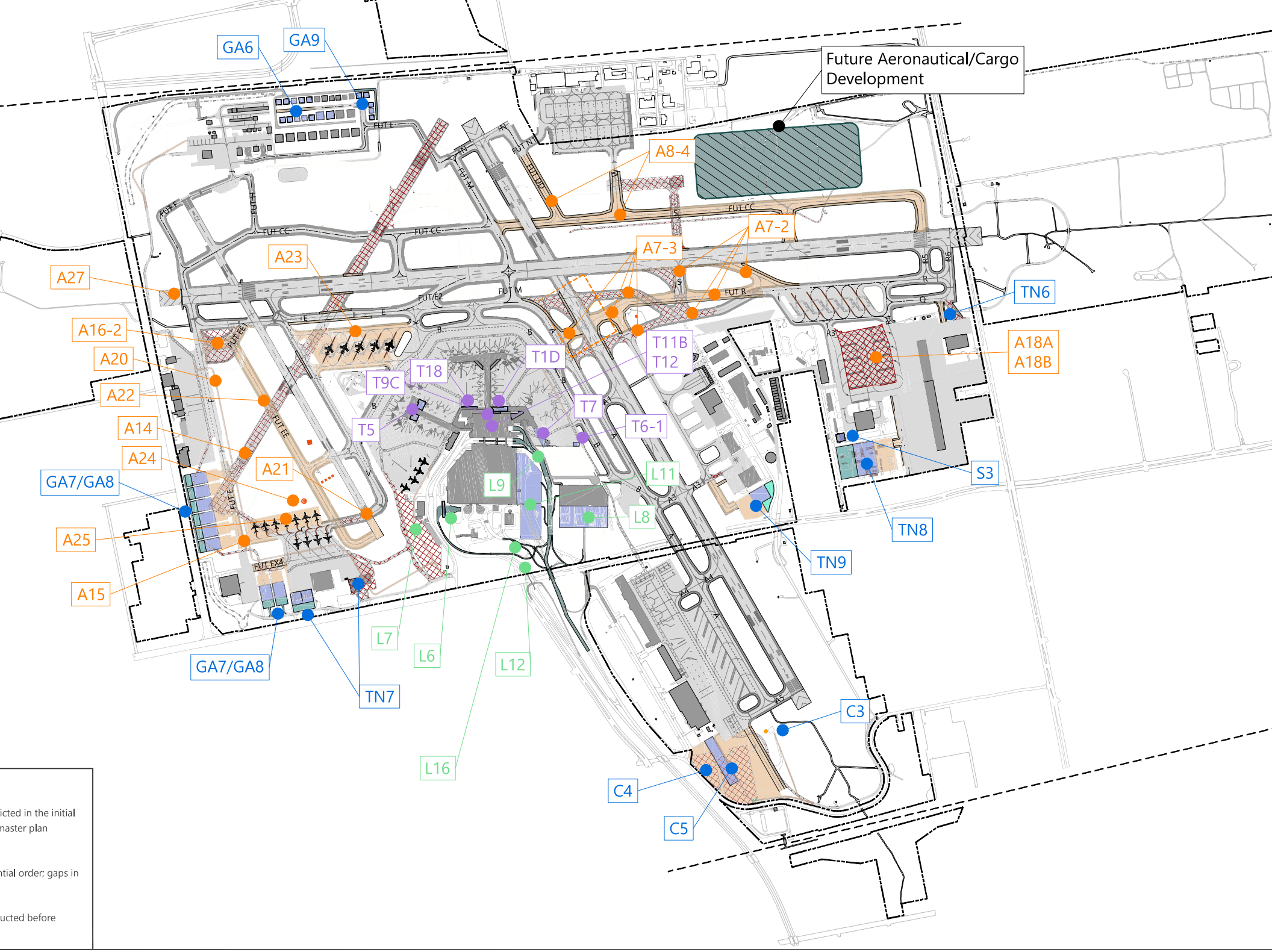
	TIMING [1]	TRIGGER	PREDECESSOR	SUCCESSOR	ES
2	2029	Support Airfield Circulation	A7-1	A7-3	
– Phase 1	2029	Enable Concourse E Expansion		T6-2 T7	
ansion	2029	Demand		T10	
g	2029	Pavement Condition	CIP 9	A15 A22 A23 A25 GA7	
	2030	Pavement Condition	A7-1		
	2030	Pavement Condition	A7-1		
	2030	Demand	A3-2 A14		
n	2030	Enables Aircraft Maintenance Facility Development		TN8	
ase 2	2031	Demand	T1C		
	2031	Demand	T1B T6-1 L2	T17	
3	2031	Support Airfield Circulation	A7-2		
eam Taxiway R6)	2031	Compliance with FAA Standards			
	2031	Demand	A14	A25 GA7	
cation	2031	Enables West Cargo Expansion		C4	
sion	2031	Demand			
	2032	Enables West Cargo Expansion	C3	C5	
	2033	Demand	C4	C6	
	2034	Enables Extension of Runway 7L-25R	TN1	A21	
2	2034	Demand	L1	L14	
cation	2035	Improve Roadway Weave Distance and Traffic Flow		L13	
	2035	Enables Taxiway EE Construction	A16-1	A22	
s – Phase 3	2035	Demand	GA5	GA9	
	2035	Demand	A20 TN7	A28	
	2036	Support Landside Development		L13	
– Phase 3	2036	Compliance with FAA Standards	A8-1 A8-3 A10		
	2036	Enables North RON Pad		A25	
	2037	Demand	A14 A15 A24		
s – Phase 1	2038	Demand	A14 A15 TN1	GA8	

M MASTER PLAN DEVELOPMENT PROJECTS (11 TO 22 YEARS)

	TIMING [1]	TRIGGER	PREDECESSOR	SUCCESSOR	EST
t – Inbound	2038	Demand		L11	
t – Phase 2	2039	Demand	T11A		
d (Phase 1), and Guard Post Relocation	2039	Enables Extension of Runway 7L-25R		A20	
mpus	2039	Demand	C2 S3	TN10	
ion – Phase 3	2039	Demand	T9B		
n	2040	Enables Extension of Runway 7L-25R and Removes Service Road from Ramp	L7	A21	
of Runway 7L-25R)	2040	Demand	A14 A16-2		
us – Phase 2	2040	Demand	GA7		
Garage Expansion and QTA	2040	Demand	L9		
ility (Adjacent to Cessna facility)	2040	Demand			
us – Phase 4	2040	Demand		GA4 GA6	
	2040	Demand			
venue Intersection Improvements	2040	Demand			

f master plan projects, defined based on forecast demand. Actual activity growth (timing, magnitude, and characteristics) will influence the timing of project implementation.
port maintains a Capital Improvement Program that captures the predicted future capital development, maintenance of assets, renewal of aging facilities, integration of new technologies, and related improvements.

rt date of construction for the identified project.
onstruction costs, soft costs, and general contractor markups.



icted in the initial master plan

ntial order; gaps in

ucted before

ilwaukee County, December 2021 (property line); Mead & Hunt, Inc., August 2019 (general aviation, cargo, and support future facilities); Ricondo & Associates, Inc., June 2022 (airfield, terminal, and landside future facility layouts).

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Airline Ground Service Equipment Building Relocation – Phase 1 (Project T6-1)

This project includes the relocation of the airline GSE building located on the existing Concourse E apron to a new location at the edge of the expanded ramp area. This project enables the continued expansion of Concourse E and the associated apron areas.

Parking Exit Revenue Plaza Relocation (Project L6)

This project entails the reconfiguration and relocation of the parking exit revenue plaza to the northwest corner of the existing parking garage. It includes an eight-lane revenue plaza, new roadway acceleration/merge lane, lighting and signage, and revenue control system installation.

Concourse C Hammerhead Expansion (Project T5)

This project includes the construction and expansion of the Concourse C hammerhead to accommodate expanded and reconfigured holdrooms, circulation, and concession spaces. It also includes allowance for minor reconfiguration of interior space, gate marking adjustments, and utility extensions.

Landside Dry Detention Basin (Project L16)

A new 1.5-acre (approximately 10-foot-deep) dry detention basin will be constructed adjacent to the relocated parking exit revenue plaza to support the capture of runoff from expanded landside projects. The project includes sitework, excavation, culverts, and outlet piping, as needed.

Tenant Taxiway Relocation (abeam Taxiway R6; Project TN6)

This project entails the reconfiguration of approximately 250 linear feet of a 50-foot-wide taxiway, including shoulders, accessing the corporate tenant exit taxiway connecting to Taxiway Q. This project also includes new taxiway, lighting, signage, and marking, as well as demolition of existing exit taxiway and shoulder pavement.

Runway 13-31 Decommissioning (Project A14)

Decommissioning and demolishing Runway 13-31 supports long-term development in the northwest area of the Airport, as well as future taxiway improvement projects. This project includes adjustment to airfield signage, lighting, and marking; removal of NAVAIDs, including runway end identifier lights (REILs) and two PAPI systems and associated lighting; and drainage infrastructure.

Taxiways F and C Extension (Project A15)

This project entails the extension of 75-foot-wide Taxiway F and shoulders to relocated and extended Taxiway C. The realignment of approximately 500 feet of Taxiway C (75 feet wide) to intersect extended Taxiway F would support aircraft circulation in the northwest area of the Airport. Relocation of taxiway lighting, pavement markings, and signage are also included in this project.

Zulu Pad Demolition (Project A16-2)

This project includes the demolition of the Zulu hold pad and Taxiway Z pavement. This project also includes signage and paint marking adjustments to existing Taxiways F and E.

Future Taxiway CC Construction – Phase 3 (Project A8-4)

This project includes the construction of a 75-foot-wide taxiway parallel to and outboard of Runway 1L-19R, south of Runway 7R-25L. It includes two taxiway connections to Runway 1L-19R and a segment of outboard taxiway to Runway 7R-25L adjacent to the WI ANG ramp access/entry taxiway (Taxiway N). The Runway 25L PAPI relocation is

included in this phase of development, along with demolition of Taxiway S west of Runway 1L-19R and demolition of the portion of converted Runway 1R-19L (taxiway segment).

Taxiway R Realignment – Phase 2 (Project A7-2)

This project includes the realignment of Taxiway R between the deice pad and Taxiway S, along with demolition of existing Taxiway R south of Taxiway S. Improvements such as signage and marking are also included.

South Ramp Demolition (Project A18-A)

For this project, the existing South Ramp will be demolished, while the existing access taxilanes (access to cargo and tenant facilities) will be maintained. It also includes site work, utility, lighting, signage, and marking adjustments.

Rehabilitate South Ramp (Project A18-B)

This project includes the rehabilitation of the existing South Ramp; the existing access taxilanes should be maintained if the demolition and future replacement of pavement is the preferred development path for the South Ramp. This project includes site work, utility, lighting, signage, and marking adjustments.

Deicing Fluid Storage Tank Relocation (Project C3)

This project includes the relocation of the existing deicing fluid tank to a location west of existing Taxiway A5. It also includes a new service/access road connection to the existing service road and utility infrastructure.

Super Saver Lot B Demolition (Project C4)

This project includes the demolition of Super Saver Lot B to enable West Cargo area expansion (Project C4), including removal of ticketing and revenue control systems, landside connections to existing roadways, and site preparation.

West Cargo Area Expansion (Project C5)

The expansion of the West Cargo area includes aircraft parking ramp, cargo buildings, and truck maneuvering and vehicle parking area construction, in addition to a 75-foot-wide access taxilane, service road realignment, and airfield perimeter fence relocation. This project also includes airside signage, lighting, and marking adjustments.

Northeast Quadrant General Aviation Campus – Phase 3 (Project GA6)

This project includes construction of six hangars in the Northeast Quadrant GA Campus, apron, and vehicle parking and circulation. It also includes sitework, approximately 400 linear feet of 35-foot-wide taxilane access, fence relocation, lighting, signage, and marking adjustments.

Northwest Quadrant General Aviation Campus – Phase 1 (Project GA7)

The initial phase of development in the Northwest Quadrant GA Campus includes the construction of four hangars, apron, and vehicle parking and circulation. The demolishing of Runway 13-31 enables this project and supports further development in the northwest development area. This project also includes sitework, utilities, and fence line adjustments.

Centralized Security Checkpoint – Phase 2 (Project T11B)

This project entails construction of the second phase of the centralized SSCP in the upper level of the terminal, including secure corridor connection of Concourse E and renovation of approximately 25,000 square feet of existing terminal space.

Implementation of Common-Use Airline Check-In Facilities – Phase 2 (Project T12)

This project entails the second phase of the implementation of common-use airline check-in equipment and supporting technology to accommodate airline demand. This reconfiguration of the existing check-in facilities would take place in the current check-in area, and it allows for some minor reconfiguration of interior spaces.

Baggage Screening Area Expansion (Project T18)

Construction of the baggage screening area addition is included in this project, along with modification to the existing baggage screening area, as needed, and heating/cooling infrastructure to support screening operations.

Employee Parking, Service Road (Phase 1), and Guard Post Relocation (Project L7)

This project encompasses the demolition of the existing employee parking lot, Airport service road, and guard post. This project includes construction of one two-person guard post and two security gates (one in, one out) and new AOA security fencing.

Vehicle Service Road Relocation (Project A20)

This project includes the construction of a 25-foot-wide Airport service road north and west of the terminal complex, paralleling Taxiway F. The project removes the airside service road from the existing apron areas to the extent possible and includes needed sitework and restriping of existing pavement to accommodate road relocation.

Tenant Facility Relocation (Project TN7)

This project entails the construction of two replacement hangars and apron to accommodate the relocation of existing tenant aircraft maintenance facilities displaced by the future extension of Runway 7L-25R (A21). This project includes parking and vehicle circulation, lighting, signage, marking, and utility connection allowance.

Runway 7L Extension (Project A21)

This project includes the extension of Runway 7L 300 linear feet (100 feet wide) to the west. Also included is the relocation of the REILs and wind cone, as well as necessary lighting, signage, and marking adjustments.

Parallel Taxiway EE (Outboard of Runway 7L-25R; Project A22)

The construction of a 75-foot-wide outboard parallel taxiway to Runway 7L-25R north of the runway, offset 400 feet from the Runway 7L-25R centerline, including two taxiway connections to Taxiways F and E, will support RDC C-III operations on Runway 7L-25R, should demand or operational changes arise. This project also includes a section of taxiway connecting Taxiway E to Taxiway F to support bypass operations formerly conducted on the Taxiway A pavement. This project includes sitework, drainage, lighting, signage, and marking adjustments.

Central Deice Pad (Project A23)

This project entails the construction of a five-position, 320,000-square-foot deice pad, including taxiway connections and approximately 1,300 linear feet of a 12-foot-tall blast fence. This project also includes sitework, paving, lighting, signage, marking, associated drainage, and deice fluid collection/detention infrastructure.

South Parking Garage – Phase 2 (Project L8)

This project includes the construction of the second phase of the South Garage, consisting of an additional six-level parking garage. Includes sitework, utilities, and adjustment to the exit road and revenue plaza.

South Aircraft Maintenance Campus (Project TN8)

This project entails the construction of an aircraft maintenance hangar, vehicle parking, circulation, and delivery areas supporting maintenance operations. This project includes construction of a 50-foot-wide access taxilane, demolition of existing buildings, sitework, lighting, signage, marking, AOA fencing, and utility adjustments.

Baggage Makeup Area Expansion – Phase 3 (Project T9C)

This project entails the third phase of the expansion of the existing baggage area on the southeast side of the terminal building. Baggage equipment and installation will also be provided under this project.

Data Recovery Center Relocation (Project S3)

This project includes the relocation of the existing Data Recovery Center in the South Cargo / Aircraft Maintenance Campus. It also includes sitework, utilities, vehicle parking area, and security fencing.

Automated Weather Observing System / Airport Surface Detection Equipment Relocation (Project A24)

This project entails the relocation of the existing automated weather observing system (AWOS) and ASDE and supporting infrastructure east of Taxiway C and east of the future RON pad (A25). The project includes sitework, utility connections, and a service roadway segment connecting to the future RON pad.

North Remain-Overnight Pad (Project A25)

This project includes the construction of the seven-position North RON Pad east of Taxiway C, along with restriping of the existing West (RON) Pad, sitework, lighting, signage, marking, and drainage improvements needed to support the operations.

Northwest Quadrant General Aviation Campus – Phase 2 (Project GA8)

This project includes the construction of four hangars in the Northwest Quadrant GA Campus along Layton Avenue and the construction of two hangars along Howell Avenue. It also includes vehicle parking and circulation and a 25-foot access road for vehicular access, as well as AOA fencing, lighting, signage, markings, and utility connections.

Terminal Roadway Realignment – Inbound (Project L9)

This project entails the realignment of the terminal entrance roadway consisting of a four-lane roadway south of the existing parking garage. This relocation enables the construction of the rental car and QTA (L11) expansion, South Parking Garage, and expanded Concourse E. The project encompasses roadway relocation between the existing curbfront area and the Airport Spur bridge. This project includes restriping of the Airport Spur bridge to add an additional lane, an entrance road connection to the South Parking Garage, sitework, lighting, signage, marking, and drainage.

Joint Use Rental Car / Parking Garage Expansion and Quick Turnaround (Project L11)

This project includes the construction of a six-level garage expansion with adjacent two-level QTA facility. The expansion facilitates the relocation of the existing rental car functions, as well as additional parking capacity adjacent to the existing garage. This project also includes a connection to the relocated Airport entrance roadways, sitework, and utilities.

West Aircraft Maintenance Facility (adjacent to Cessna facility) (Project TN9)

This project entails the construction of an aircraft maintenance facility south of Runway 7R-25L, east of Howell Avenue and adjacent to an existing aircraft maintenance facility. This project includes vehicle access and parking,

aircraft parking apron, an extension of Taxiway F, sitework, lighting, signage, marking, and retaining wall infrastructure.

Northeast Quadrant General Aviation Campus – Phase 4 (Project GA9)

This project entails the construction of four additional hangars in the Northeast Quadrant GA Campus. The project also includes aircraft apron, vehicle parking and circulation areas, a 35-foot-wide taxilane extension, sitework, lighting, signage, marking, and AOA fence modifications.

Runway 1L-19R Extension (Project A27)

This project includes the construction of a 10-foot northward extension to Runway 1L-19R, including blast pad modifications to align with FAA standards. This project also includes sitework, lighting, signage adjustments, markings, and relocation of the Runway 19R REILs.

Hutsteiner Drive and Howell Avenue Intersection Improvements (Project L12)

This project includes the construction of a left-turn lane to allow vehicles to queue as they wait to turn onto southbound Howell Avenue. The project includes the addition of a signalized intersection inclusive of traffic lighting and needed pavement area to support the additional lane, utility work, and lane striping.

9.4 DECISION TREE

A decision tree was created to map the decision-making process for the future development of various major Airport components. The decision tree serves as a support tool for the Airport in evaluating the timing and consequence of implementation decisions. As a planning tool, the decision tree illustrates major decision milestones and the potential outcomes of those development decisions and depicts project dependencies, priorities, management, policy, and operational possibilities associated with the projects.

The projects in the decision tree are stratified into six categories: airfield, landside, terminal, cargo, general aviation, and support facilities. The demand level scales (enplaned passengers and aircraft operations) are shown only to provide context and general and relative timing of the identified improvements. Because the triggers for many of the projects are qualitative in nature and/or some projects are implemented to enable other projects, the relationship of the timing of certain projects to the activity scales in the decision tree is not necessarily binding. However, as emphasized, specific project timing will be decided by the Airport based on multiple factors and considerations.

The decision points identify significant project alternatives that should be considered as part of the project verification and refinement and before initiating specific project elements. Oftentimes, operational/policy/management changes may postpone the timing of construction of specific facilities (e.g., adjustment in the target LOS, adjustment in curbside management policies). Further analysis would be required to assess the benefits of any operational/policy/management change, including the estimated deferral of specific project improvements or potential project elimination.

9.4.1 DECISION POINTS

To accommodate growing demand and other needs, decisions will ultimately be necessary to allow sufficient time for the advanced planning, environmental processing, design, and construction of needed facilities. These major critical and defining decision points are represented in the decision tree as decision nodes. These are the critical points at which the Airport must have defined a future development path based on the conditions and characteristics occurring at the time relative to the project triggers and allowances for enabling work and

construction. While development decisions or commitments should not be made earlier than necessary, timely decision-making is critical to the implementation process.

The identified decision points represent points at which the Airport will make policy-level or planning-level decisions regarding a particular course of action. In some cases, the decision will be influenced by other actions (e.g., project timing, tenant needs/requests); however, in other cases, the decision will be influenced by constraints or conditions surrounding the decision at the particular time a decision is required. For example, financing challenges may influence the Airport to a particular course of action when reaching a milestone, reflecting the conditions in place at that point.

The decision tree maps the logic and relationship among MPU elements but does not obligate the Airport to pursue any given project, nor does it restrict the Airport from modifying the relationship among projects by revising the scope or other characteristics of them.

The following major decision points are anticipated as the Airport evaluates development options for meeting demand. The alphabetical order of the labels (e.g., Decision Point A, Decision Point B) does not reflect the timing or priority of decisions; rather, it is used as an identifier to match the decision point with an explanation at the bottom of the decision tree.

- **Decision Point A:** The separations for future Taxiway EE (A22) and the relocation of Taxiway V (A28) allow for an upgrade of Runway 7L-25R to RDC C-III standards. As activity at the Airport continues to evolve and management of aircraft by ATC staff changes, a need to upgrade the runway to C-III standards may arise.
- **Decision Point B:** Pavement condition on the South Ramp suggests rehabilitation or replacement will be required within the planning horizon. If the future South Deice Pad (A7-1) is operational prior to the need to address the condition of the South Ramp pavement, it may be possible to remove the South Ramp until such time as tenant or other operational demands dictate its reconstruction.
- **Decision Point C:** The condition and age of the existing parking garage suggest rehabilitation or replacement may be required within the planning horizon. To allow for this replacement to take place and have minimized impact on parking capacity, two phases of the South Parking Garage (L1 and L8) will need to be completed, along with the connector walkway (L10) to ensure passenger connectivity to the terminal. Once parking capacity has been provided, the existing garage work could take place. To ensure additional rental car and parking capacity is provided, the construction of either the joint rental car/QTA (L11) or the West Parking Structure could be constructed to provide the replacement rental car and packing capacity while the existing garage is reconstructed.
- **Decision Point D:** The hammerhead sections of Concourses C and D are expanded under the MPU to provide additional facilities to meet demand. Both provide for expanded passenger amenities and would require minor restriping of apron areas to accommodate shifts in aircraft parking arrangements. As the demand for terminal amenities changes, either concourse expansion could take place to accommodate the types of demand anticipated.
- **Decision Point E:** As passenger volumes increase over the planning horizon, the need for expanded security screening infrastructure and, therefore, terminal footprint to accommodate the expanded area will be monitored and evaluated. A consolidated security checkpoint would provide MKE operational efficiency and allow for redevelopment of terminal areas. If incremental growth in security expansion is preferred, then additional lanes can be accommodated on the Concourses C and D SSCPs.

- **Decision Point F:** Initial cargo growth over the planning horizon can be accommodated at either the West or South Cargo development area. Differing site locations, size, and redevelopment potential will be assessed relative to the size of the proposed expansion or development at the time of implementation. A larger site in the south could accommodate a single or phased cargo development; the west area can accommodate a smaller development but is adjacent to the Airport Spur and may offer efficiencies as development priorities are reviewed relative to expansion needs.
- **Decision Point G**: SRE staging during winter operations is currently conducted on Taxiway Y. Constructing a staging area between the existing Airport maintenance area and the future alignment of Taxiway R removes staging of SRE from the taxiway, enhancing safety and operational efficiency. Should the construction of the staging pad (S2A) be deferred, a temporary staging area could be constructed on a portion of Taxiway R pavement intentionally preserved when this taxiway is realigned. Construction of access road extensions would allow access from the east side of the Airport Maintenance Campus.

Other decision points and milestones may arise in the future. The decision tree can be continually updated to reflect appropriate changes that could dictate additional or revised decision milestones.

9.4.2 DEFINED TRIGGERS

The specific improvements depicted in the decision tree would be triggered by activity (demand driven) levels, policy decisions, regulatory changes, or discretionary development decisions. The placement of projects on the decision tree is driven by the relationship of projects/project elements, by the need for enabling and related improvements, and by demand levels. The decision tree identifies the need for each major facility in the context of demand (where appropriate) and/or other triggering development. Non-demand-driven improvements are not linked to the activity levels shown in the decision tree, but, in fact, could be accelerated or deferred depending on the nature of the triggering event/decision.

Predicting the timing of any demand trigger that would initiate development actions that include the enabling work does not indicate the specific improvement(s) will be implemented. Rather, it indicates appropriate consideration will be given to exploring potential options for accommodating demand through the enabling work. In some cases, solutions other than facility development/improvements may be viable and desirable (operational changes, facility management strategies, compromises in LOS for limited periods of peak activity, etc.).

9.4.3 ACTIVITY METRICS TO MONITOR

As the Airport monitors passenger, aircraft operations, and cargo data to assess growth and understand the characteristics of materializing demand, adding several key data items to the monitoring can provide a more thorough understanding of the character of growth and guide ultimate development decisions. The following list outlines the types of data appropriate for monitoring and analysis. Other activity metrics can be useful, depending on the facility involved. Specifically, the following metrics should be monitored to inform facility implementation and timing decisions:

- aircraft operations – total, cargo, air carrier, air taxi, military, based and itinerant GA
- aircraft fleet mix
- checked/screened baggage volumes by terminal
- passenger volumes at SSCPs
- cargo tonnage

- number of vehicles using parking facilities, entry and exit data for designated periods, durations of occupancy
- roadway traffic counts

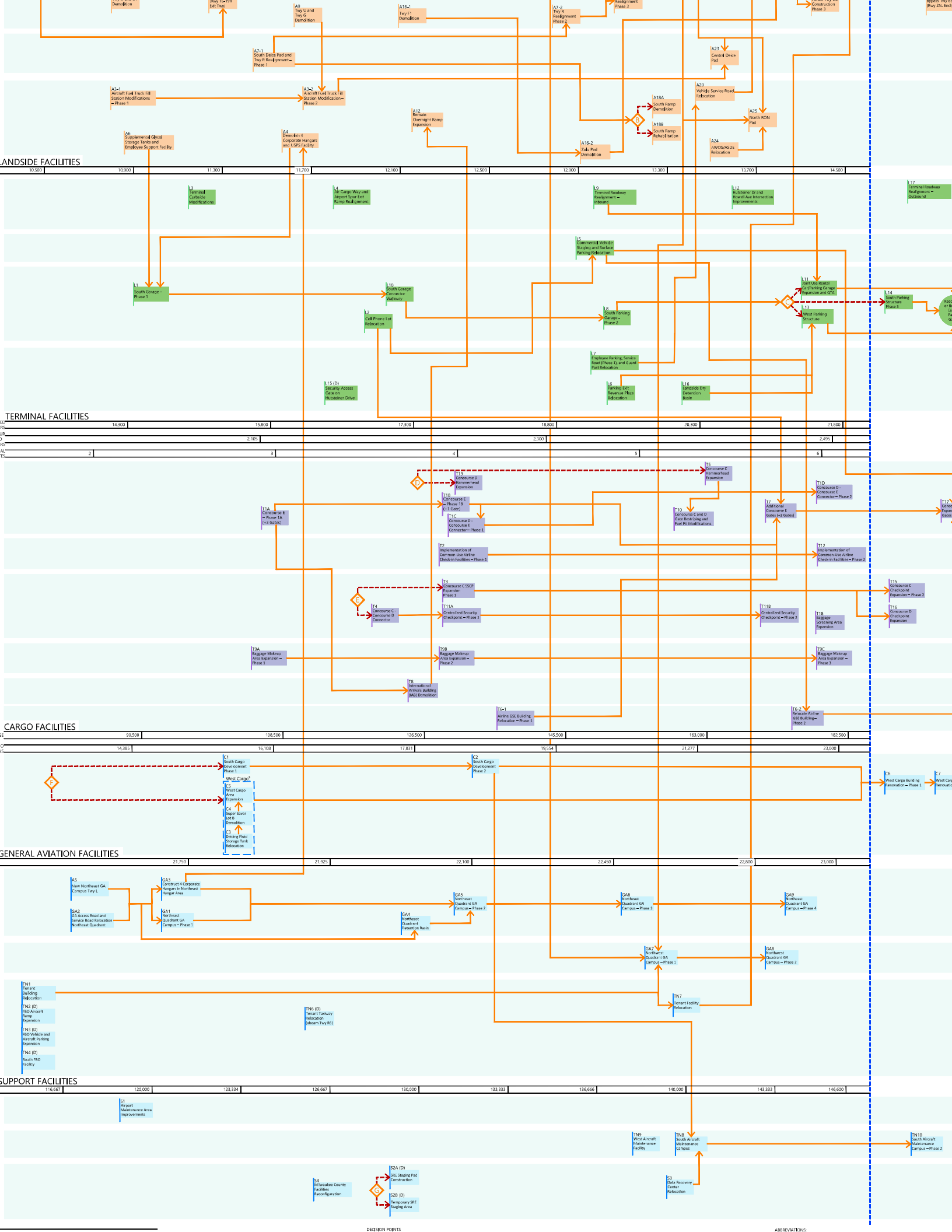
As the information is collected and analyzed, it should be compared with the forecasts for the corresponding functional area of the Airport. This comparison would help the Airport determine what stage of planning is necessary given existing and trending conditions. Analyzing data to assess facility use and comparing that data to demand triggers can provide early indications of the need for possible project implementation.

The Airport can evaluate the MPU recommendations at regular intervals, or at the first notice of significant changes in aviation activity. The purpose of this evaluation would be to compare activity forecasts with actual activity statistics and assess the effects of differing conditions and/or operational changes.

9.4.4 PROJECT DEPENDENCIES AND JUSTIFICATIONS

Many projects depend on related or supporting projects to provide the level of desired capacity or operational efficiency. These types of project dependencies result in groupings of individual improvements into larger overall projects. In this way, specific improvements may not be triggered directly by demand, but rather by the dependency of another project on the operational and safety benefits provided by the specific improvement. Given these dependencies, the projects included should be considered to represent a larger overall development project that includes individual components (taxiways, apron development, etc.).

The decision tree including individual projects, groupings, dependencies, and decision points are depicted in **Exhibit 9-4**.


LANDSIDE FACILITIES
TERMINAL FACILITIES
CARGO FACILITIES
GENERAL AVIATION FACILITIES
SUPPORT FACILITIES
A3-1 Aircraft Fuel Truck Fill Station Modifications – Phase 1
A3-2 Aircraft Fuel Truck Fill Station Modification – Phase 2
A6 Supplemental Glycol Storage Tanks and Employee Support Facility
A4 Demolish 4 Corporate Hangars and USPS Facility
A12 Remain Overnight Ramp Expansion
A16-2 Zulu Pad Demolition
A18A South Ramp Demolition
A18B South Ramp Rehabilitation
A20 Vehicle Service Road Relocation
A24 AWOS/ASDE Relocation
A25 North RON Pad
L1 South Garage – Phase 1
L2 Cell Phone Lot Relocation
L3 Terminal Curbside Modifications
L4 Air Cargo Way and Airport Spur Exit Ramp Realignment
L5 Commercial Vehicle Staging and Surface Parking Relocation
L6 Parking Exit Revenue Plaza Relocation
L7 Employee Parking, Service Road (Phase 1), and Guard Post Relocation
L8 South Parking Garage – Phase 2
L9 Terminal Roadway Realignment – Inbound
L10 South Garage Connector Walkway
L11 Joint Use Rental Car/Parking Garage Expansion and QTA
L12 Hutsteiner Dr and Howell Ave Intersection Improvements
L13 West Parking Structure
L14 South Parking Structure Phase 3
L15 (D) Security Access Gate on Hutsteiner Drive
L16 Landside Dry Detention Basin
L17 Terminal Roadway Realignment – Outbound
T1A Concourse E – Phase 1A (+3 Gates)
T1B Concourse E – Phase 1B (+1 Gate)
T1C Concourse D - Concourse E Connector – Phase 1
T1D Concourse D - Concourse E Connector – Phase 2
T2 Implementation of Common-Use Airline Check-in Facilities – Phase 1
T3 Concourse C SSCP Expansion Phase 1
T4 Concourse C - Concourse D Connector
T5 Concourse C Hammerhead Expansion
T6-1 Airline GSE Building Relocation – Phase 1
T6-2 Relocate Airline GSE Building – Phase 2
T7 Additional Concourse E Gates (+2 Gates)
T8 International Arrivals Building (IAB) Demolition
T9A Baggage Makeup Area Expansion – Phase 1
T9B Baggage Makeup Area Expansion – Phase 2
T9C Baggage Makeup Area Expansion – Phase 3
T10 Concourse C and D Gate Restricting and Fuel Pit Modifications
T11A Centralized Security Checkpoint – Phase 1
T11B Centralized Security Checkpoint – Phase 2
T12 Implementation of Common-Use Airline Check-in Facilities – Phase 2
T13 Concourse C Checkpoint Expansion – Phase 2
T16 Concourse D Checkpoint Expansion
T18 Baggage Screening Area Expansion
T37 Concourse E Gates
C1 South Cargo Development Phase 1
C2 South Cargo Development Phase 2
C3 Deicing Fluid Storage Tank Relocation
C4 Super Saver Lot B Demolition
C5 West Cargo Area Expansion
C6 West Cargo Building Renovation – Phase 1
C7 West Cargo Renovation
A5 New Northeast GA Campus Twy L
GA1 Northeast Quadrant GA Campus – Phase 1
GA2 GA Access Road and Service Road Relocation Northeast Quadrant
GA3 Construct 4 Corporate Hangars in Northeast Hangar Area
GA4 Northeast Quadrant Detention Basin
GA5 Northeast Quadrant GA Campus – Phase 2
GA6 Northeast Quadrant GA Campus – Phase 3
GA7 Northwest Quadrant GA Campus – Phase 1
GA8 Northwest Quadrant GA Campus – Phase 2
GA9 Northeast Quadrant GA Campus – Phase 4
TN1 Tenant Building Relocation
TN2 (D) FBO Aircraft Ramp Expansion
TN3 (D) FBO Vehicle and Aircraft Parking Expansion
TN4 (D) South FBO Facility
TN6 (D) Tenant Taxiway Relocation (abeam Twy R6)
TN7 Tenant Facility Relocation
TN8 South Aircraft Maintenance Campus
TN9 West Aircraft Maintenance Facility
TN10 South Aircraft Maintenance Campus – Phase 2
S1 Airport Maintenance Area Improvements
S2A (D) SRE Staging Pad Construction
S2B (D) Temporary SRE Staging Area
S3 Data Recovery Center Relocation
S4 Milwaukee County Facilities Reconfiguration
DECISION POINTS
ABBREVIATIONS

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