

## **SECTION 6 – PREFERRED DEVELOPMENT PLAN**

This section presents the Preferred Development Plan for DTW. The Preferred Development Plan incorporates the best alternatives and solutions for each component of the Airport (airfield, terminal, landside and support facilities) as discussed in *Section 5 – Concept Development and Evaluation*. Following is a summary of the overall planning philosophy used to achieve the goals of the Master Plan for each component as well as a brief description/rationale for each individual project.

### **6.1 Airfield**

Airfield expansion is typically the most time consuming, expensive and controversial component of a Master Plan. This Master Plan attempts to defer the need for airfield expansion beyond the current Airport boundary by enhancing the capability and efficiency of the existing airfield infrastructure to the greatest extent feasible. To this end, the Master Plan contemplates providing additional taxiway exits for optimal operational efficiency and extending an existing runway in order to reduce congestion and delays by providing additional departure runway length. However, over the planning horizon, it is likely that additional runway capacity will be needed in order to meet the anticipated demand. To this end, the Preferred Development Plan identifies a new independent precision runway that results in the expansion of the Airport boundary.

When addressing airfield expansion, the Master Plan assumes that the Airport will acquire all land that is needed to accommodate the new and extended runways, including the runway protection zones and other FAA prescribed safety areas and operational requirements. The Master Plan also reflects a buffer acquisition area which may be acquired for noise mitigation purposes, FAA or airport navigational facilities, or enhancements to the surface transportation system. It should be noted, however, that as the NEPA process is completed, a more exact boundary will be established which could change the land acquisition needs of the Airport.

### **6.2 Terminal**

Terminal expansion is anticipated in order to meet the likely demand throughout the planning horizon. The Master Plan recommends accommodating this expansion within the available terminal envelopes of the McNamara Terminal and the North Terminal. The primary considerations for terminal expansion included meeting future requirements in terms of narrow body equivalent gates (NBEGs), while maintaining operational efficiency, accommodating incremental expansion capability and compatibility with the preferred airfield alternatives.

### **6.3 Landside**

Development of additional landside facilities within the planning horizon is anticipated in order to efficiently manage the demand on certain landside facilities such as roadways and curbside. The Master Plan also provides opportunities to enhance customer service and improve connectivity between certain nodes of the Airport such as the rental car facilities, terminals and remote parking. Consolidating the rental car facilities is also recommended in order to provide additional capacity and improves customer service while reducing demand on the curbside by enabling the use of a consolidated bussing system. New and expanded parking facilities are contemplated to not only accommodate the overall

demand but also provide a better range of locations and products (hourly, daily and long-term) for the users. Landside facilities are clustered at the north and south entrances to the Airport in order to make decision-making and wayfinding more intuitive for users. These locations will also reduce demand in the terminal cores where congestion is the most problematic, and will help facilitate the eventual implementation and utilization of an Airport Transit System. An Airport Transit System is recommended because it represents the most operationally efficient, reliable, environmentally conscious, and customer friendly ways to move significant volumes of passengers. Finally, the Master Plan considers the eventual connection between the Airport and the surrounding communities and central business district by encouraging development of landside facilities to the north of I-94 which is congruent with other regional planning initiatives the most likely alignment of the future regional mass transit.

## **6.4 Support Facilities**

New, expanded and relocated support facilities are necessary to support the anticipated demand and recommended future airfield, terminal and landside facilities. The Master Plan locates these new and expanded support facilities in a way that is efficient, logical and consistent with their purpose, is environmentally conscious, and does not threaten or preclude the possible development of other facilities.

## **6.5 Preferred Development Plan Projects**

As presented in **Exhibit 6.1-1**, the Preferred Development Plan represents the most viable solution for the Airport to accommodate the future demand and achieve the other goals of the Master Plan over the next 20 years. The Preferred Development Plan includes the following projects.

### **1. South Public Parking (4,000 Spaces)**

This project provides a new 4,000 space public surface parking lot south of Eureka Road that will help accommodate the current and future demand for remote parking and will provide a convenient parking option for those users entering the Airport from the south.

The project consists of an entrance and exit plaza, management building, and all necessary site work, utilities, landscaping, signage and lighting.

### **2. West Cargo Taxiway (Phase 1)**

This project provides taxiway infrastructure west of Runway 4L-22R in support of anticipated cargo development in that area. The Airport has identified demand for additional on-airport cargo development through its ongoing marketing efforts.

The project contemplates an initial development of 1,590 linear feet of a 75 foot wide taxiway parallel to, and west of, Runway 4L-22R. The project includes all site work, pavement, lighting, signage and pavement markings.

### **3. Air Cargo Development (Phase 1)**

This project provides cargo development west of Runway 4L-22R. The Airport has identified demand for additional on-airport cargo development through its ongoing marketing efforts.

The project contemplates an initial development of one or more cargo buildings with truck dock, parking lot, landscaping, and access to Vining Road, adjacent aircraft apron and all necessary site work, utilities, landscaping and security fencing.

### **4. North Centralized Checkpoint**

This project provides a new centralized security checkpoint adjacent to the Airport Maintenance Complex that provides direct, secure AOA access to the North Terminal Area and can accommodate additional screening requirements such as 100% employee and vehicle screening that are anticipated to be mandated by the TSA in the near-term.

The project includes an approximately four acre site with a roadway, vehicle queuing area, guard booth, and a screening checkpoint to facilitate screening all employees and deliveries into the Airport. It is expected that the TSA will provide all necessary equipment for the physical screening operation. This project is envisioned to include an access road, a paved queuing area, an open air canopied structure with a small building for employees (breakroom, restrooms, etc.), all sitework and necessary utilities as well as security fencing.

### **5. South Centralized Checkpoint and Culvert Bridge Improvements**

This project provides a new centralized security checkpoint adjacent to the Airport Maintenance Complex that provides direct, secure AOA access to the North Terminal Area and can accommodate additional screening requirements such as 100% employee and vehicle screening that are anticipated to be mandated by the TSA in the near-term.

The project includes an approximately four acre site with a roadway, vehicle queuing area, guard booth, and a screening checkpoint to facilitate screening all employees and deliveries into the Airport. It is expected that the TSA will provide all necessary equipment for the physical screening operation. This project is envisioned to include an access road, a paved queuing area, an open air canopied structure with a small building for employees (breakroom, restrooms, etc.), all sitework and necessary utilities as well as security fencing. Because of its location, this project also includes a bridge over the adjacent culverts and roadway improvements between the security checkpoint and the new bridge to support the anticipated traffic.

### **6. Runway 4L-22R High Speed Taxiways**

This project provides high speed runway exits in both directions from Runway 4L-22R to Taxiway A. This will improve the efficiency of the existing airfield by reducing runway occupancy times for arriving aircraft, thereby enabling air traffic controllers to safely and efficiently reduce in-trail separation between certain aircraft.

The project consists of two high speed exit taxiways (Miami Spiral or similar design) connecting Runway 4L-22R to the parallel Taxiway A from the approximate midpoint of the runway. The project includes all site work, pavement, lighting, signage and pavement markings.

## **7. Consolidated Rental Car Facility (CONRAC)**

This project provides a consolidated facility that is envisioned to accommodate all rental car companies wishing to operate at the Airport. This new facility will foster increased competition and improved operational efficiency, enable growth and expansion of those rental car companies that wish to expand, and will improve environmental compliance through the use of a consolidated shuttle system.

The project represents an 80 acre consolidated rental car facility that includes 25 acres for ready/return parking spaces, 2 acres for a customer service building, 43 acres of rental car service areas, and the remaining ten 10 acres for landscaping and service roads/site access.

## **8. Runway 9R-27L High Speed Taxiway**

This project provides a high speed runway exit from Runway 9R-27L to Taxiway T. This will improve the efficiency of the existing airfield by reducing runway occupancy times for arriving aircraft, thereby enabling air traffic controllers to safely and efficiently reduce in-trail separation between certain aircraft.

The project includes one high speed exit taxiway (Miami Spiral or similar design) connecting Runway 9R-27L to the parallel Taxiway T adjacent to Taxiway S. The project includes all site work, pavement, lighting, signage and pavement markings.

## **9. Dirty Snow Storage**

This project provides an alternative location for storage of contaminated snow as the current location is needed in order to implement the planned Capital Improvement Program project that will connect Dingell Drive with Rogell Drive.

The project consists of clearing an area within the current Green Lot parking lot for the storage of contaminated or “dirty” snow. The project anticipates modifying the perimeter fencing to allow trucks transporting the contaminated snow direct access from the airfield via the exiting airport service roads and includes any modification to the drainage system necessary to comply with the Airport’s stormwater management plan and National Pollutant Discharge Elimination System (NPDES) permit.

## **10. North Employee Parking (2,500 Spaces)**

This project provides an alternative location for employee parking on the north side of the Airport. The current north employee lot can be relocated to the south employee lot when the current north employee lot is needed for the new north centralized security checkpoint (Project #4). However, the northern portion of the south employee lot is anticipated to be impacted by the

Runway 3L Perimeter Taxiways (Project #15) in the near-term. The impacted portion of the south employee lot will be relocated back to the north side of the Airport in order to provide both south and north parking options for employees. The land envisioned for this project is included in a land swap currently underway between the WCAA and the surrounding community.

The project consists of developing a 2,500 space surface employee parking lot north of I-94 adjacent to Smith Road between Middlebelt and Merriman Roads. This project include the parking lot, entrance and exit plaza with access control, connection to Vining Road and/or Eureka Roads, and all necessary sitework, utilities, marking, lighting and signage, and bus stop vestibules.

## **11. Blue Deck Public Parking Expansion (4,000 Spaces)**

This project provides additional structured parking in the North Terminal Area that is needed to accommodate the projected demand for close-in, convenient, covered parking. This is the only viable opportunity to expand structured parking on the Airport as the McNamara Terminal cannot be expanded.

The project consists of expanding the Blue Deck Parking Structure with a six story addition that will provide approximately 4,000 additional spaces. The project will include all ingress and egress roads, an exit plaza, and connection to the existing structure as well as all sitework, utilities, landscaping and vertical and horizontal circulation.

## **12. Relocated Executive Terminal**

This project provides an alternative location for an Executive Terminal to serve the corporate and general aviation users at the Airport as the current facility must be relocated to accommodate the planned extension of Runway 21R. The proposed location for this project is the current site for Building #358, whose functions are being incorporated into the new Airport Administration Building.

The project consists of the relocation of the historically significant Executive Terminal from its current location to the current location of Building #358 on Middlebelt Road. This includes constructing a new 4,000 SF facility, approximately 30,000 SF of apron, and a taxiway connecting the apron with the adjacent airfield. This project includes all sitework, utilities, landscaping and roadway access. The project also includes physically relocating the existing facility to a new location.

## **13. Runway 3L-21R Centralized Deice Pad Expansion (Phase 1)**

This project expands the deice pad adjacent to Runway 3L-21R in order to accommodate additional aircraft deicing positions facilitate the consolidation of deicing operations over time from four remote locations to two remote locations. It is the intent of the airlines to centralize deicing operations over time to increase flexibility and operational efficiency.

The project includes approximately 36,000 square yards of additional pavement adjacent to the existing deice pad adjacent to Runway 3L-21R. The project includes all necessary facilities and

equipment for deicing operations, including underground piping and holding facilities, deicing towers and required storage tanks. This project represents an extension of the existing deice pad by approximately 800 feet long by 400 feet wide.

#### **14. Runway 4R-22L Centralized Deice Pad Expansion (Phase 1)**

This project expands the deice pad adjacent to Runway 4R-22L in order to accommodate additional aircraft deicing positions facilitate the consolidation of deicing operations over time from four remote locations to two remote locations. It is the intent of the airlines to centralize deicing operations over time to increase flexibility and operational efficiency.

The project includes redeveloping approximately 120,000 square yards of existing apron east of the current Runway 22L deice pad to serve as an expanded deicing facility. This project includes all necessary facilities and equipment for deicing operations, including underground piping and holding facilities, and glycol storage tanks. The project includes site work and pavement rehabilitation to implement the proper grades and incorporate the appropriate drainage and spent deicing fluid storage and reclamation capability. A deicing operations building is contemplated as well as all necessary painting, lighting, marking, and signage for the deice pad and vehicle storage and queuing areas.

#### **15. Runway 3L Perimeter Taxiways**

This project provides additional taxiways south of Runway 9R-27L in order to ensure the airfield operates efficiently should the FAA determine that aircraft are unable to taxi unabated around the end of Runway 3L on existing Taxiways J and T. Preliminary analysis indicates current taxiway operations will not comply with new FAA standards and will require new perimeter taxiways to support unabated taxi flow. Air traffic controllers have indicated that unabated taxi flow is essential to operating the airfield efficiently.

The project includes approximately 4,400 feet of new 75 foot wide taxiways south of Runway 9R-27L connecting Taxiway W and PP to Taxiways J and T. This project includes all site work, utilities, pavement, lighting, signage and markings. It also includes demolition of the existing employee parking lot as necessary to complete the project.

#### **16. West Cargo Taxiway (Phase 2)**

This project provides taxiway infrastructure west of Runway 4L-22R in support of anticipated further cargo development in that area. The Airport has identified demand for additional on-airport cargo development through its ongoing marketing efforts and believes that additional on-airport cargo development in the future is also likely.

The project contemplates development of an additional 1,590 linear feet of a 75 foot wide taxiway parallel to, and west of, Runway 4L-22R. The project includes all site work, pavement, lighting, signage and pavement markings.



## **17. Air Cargo Development (Phase 2)**

This project provides additional cargo development west of Runway 4L-22R. The Airport has identified demand for additional cargo development through its on-going marketing efforts and believes additional future demand is also likely.

The project contemplates development of one or more cargo buildings with truck dock, parking lot, landscaping, and access to Vining Road, adjacent aircraft apron and all necessary site work, utilities, landscaping and security fencing.

## **18. Runway 21R Extension and Land Acquisition (1,500')**

This project extends Runway 21R in order to provide additional departure runway length to accommodate more aircraft that either can not or will not depart from the current 8,500 foot runway. This project will also provide more flexibility air traffic controllers in scheduling departing aircraft and will increase the number of destinations that can be served from Runway 3L-21R.

The project includes a 1,500 foot extension of Runway 21R and Taxiways M and P to the north. The runway extension will be 200 feet wide while the taxiways will be 75 feet wide. This project includes all site work, utilities, pavement, lighting, signage and pavement markings. The project also includes acquisition of approximately eight acres of land and relocation of two businesses to comply with federal guidelines for ownership of the Runway Protection Zone. This project includes upgrading the approach capability of Runway 21R to Category I precision instrument approach by installing an Instrument Landing System.

## **19. McNamara Concourse B and C Expansion (10 Gates)**

This project provides additional aircraft gates and related concourse facilities at the McNamara Terminal that are needed to accommodate the anticipated future demand.

The project contemplates a 10 gate expansion of the McNamara Terminal, including holdrooms, operations space and all necessary public space and mechanical systems. The project includes aircraft apron, underground fueling system, jetbridges, fixtures, furniture and equipment, and all site work, pavement, lighting, signage and pavement markings.

## **20. New Flight Kitchen**

This project provides a new flight kitchen for one or more airlines operating at the Airport in order to meet the demand for in-flight meals and aircraft provisioning. The existing flight kitchen is reaching the end of its useful life and is expected to be replaced within the planning period.

The project represents an 180,000-square-foot facility directly south of the McNamara Terminal with adjacent vehicle parking, and loading dock. The project includes all necessary site work, utilities, roadway improvements, landscaping, and security fencing.

## **21. Taxiway PP Extension**

This project provides a direct taxi route between the Runway 3L-21R centralized deice pad and Runway 21R. This will enable aircraft to use the Runway 3L-21R centralized deice pad in both north and south flow operations with minimal impact to deicing holdover times and without creating airfield congestion.

The project consists of the extension of Taxiway PP by approximately 4,200 feet between Taxiway F and Taxiway P4. Taxiway PP will be 75 foot wide with standard taxiway shoulders. This project includes all site work, pavement, lighting, signage and pavement markings.

## **22. Perimeter Aircraft Rescue Fire Fighting (ARFF) Station 400**

This project provides an additional ARFF station on the southern perimeter of the Airport. The FAA has encouraged the WCAA to plan to transition from a centralized response coverage strategy to a perimeter response coverage strategy. This project will improve incident response times to portions of the south airfield in accordance with the direction of the FAA's Certification division.

The project represents the development of a new 8,800 SF aircraft rescue and fire fighting station, including landside and airside roadways, a 10 space parking lot, one new piece of fire fighting equipment, and all necessary site work, utilities, roadway improvements, landscaping, and security fencing.

## **23. North Terminal Expansion (5 Gates)**

This project provides additional aircraft gates and related concourse facilities at the North Terminal that are anticipated to be needed to accommodate the projected future demand.

The project contemplates a 5 gate expansion of the North Terminal, including holdrooms, operations space and all necessary public space and mechanical systems. The project includes aircraft apron, underground fueling system, jetbridges, fixtures furniture and equipment, and all site work, pavement, lighting, signage and pavement markings.

## **24. Fuel Farm Expansion**

This project provides an additional 60,000 gallons of fuel storage so that the Airport has enough storage capacity to meet the future needs of the airlines while operating the fuel farm effectively. The hub airline has agreed that they will likely require additional fuel storage capacity within the planning horizon.



The project includes one additional 60,000 gallon fuel storage tank, as well as all necessary pavement, spillage berms, equipment and controls needed to connect to the existing fuel delivery, storage and distribution facilities. The project also includes all necessary site work, utilities, landscaping and security fencing.

## **25. Airline Freight Expansion**

This project provides additional freight facilities that will likely be needed by the airlines as freight activity increases throughout the planning period.

The project contemplates expansion of the existing airline freight facilities by an additional 40,000 square feet of building with an access road, auto parking, truck dock, AOA access, and all necessary site work, utilities, landscaping, and security fencing.

## **26. North Public Parking (2,500 Spaces)**

This project provides additional public surface parking on the north side of the Airport to meet the anticipated demand for parking as passenger activity increases over time. This project serves as a buffer for parking capacity between the expansion of the Blue Deck in the near-term and development of remote deck parking in the long-term.

The project consists of a new 2,500 space public surface parking lot, entrance and exit plaza, management building, and all necessary site work, utilities, landscaping, signage and lighting.

## **27. New Stormwater Detention Pond**

This project provides the additional stormwater detention capacity that is needed to collect stormwater from the newly created impervious surfaces on the Airport. It should be noted that the development of any new pavement, such as additional cargo apron or taxiways (Projects #2 or #3) or the expansion of deicing facilities (Project #13 or #14) would likely trigger the need for additional stormwater detention capacity.

The project includes a new stormwater detention pond designed to accommodate all of the new impervious area developed as part of the 5th parallel runway and taxiways, including all necessary drainage systems, outfall structures, pump stations, piping, berms, sitework, utilities, security fencing and landscaping.

## **28. Relocated South Employee Parking (3,500 Spaces)**

This project provides a replacement for the remaining portion of the south employee parking lot as it is expected to be impacted by the development the perimeter taxiway associated with the 5th parallel runway. The location of the relocated south employee lot will remain on the south side of the Airport in order to continue to provide both south and north parking options for employees. A portion of the south employee parking lot may be relocated to a new location north of I-94 (the same location as the North Employee Parking – see Project #10) prior to this project in order to accommodate the Runway 3L Perimeter Taxiways (see Project #15)

The project consists of developing a 3,500 space surface employee parking lot on the southwest corner of Eureka Road and Vining Road, and includes the parking lot, entrance and exit plaza with access control, connection to Vining Road and/or Eureka Roads, and all necessary sitework, utilities, marking, lighting and signage, and bus stop vestibules. This project will replace the existing south employee parking lot.

## **29. Airport Transit System and Maintenance Building**

This project represents a completely automated transit system between the consolidated rental car facility north of I-94 through the North Terminal Area and the McNamara Terminal Area to the remote surface parking lot south of Eureka Road. This project will provide the highest level of customer service for those users connecting between the various components of the Airport and will reduce the demand on the curbfront and improve air quality by reducing the number of busses operating at the Airport.

The project consists of an elevated monorail system with dual running beams traversing approximately 25,500 feet, including approximately 5,500 feet of tunnels and a roadway flyover. The project includes nine transit cars and five transit stations as well as a maintenance building and all necessary site work, utilities, roadway relocations, landscaping, and security fencing.

## **30. Land Acquisition (5th Parallel Runway)**

This project represents the acquisition of an approximately 1,000 acres of land needed to construct and safely operate the planned 5th Parallel Runway in accordance with FAA requirements and guidance.

The project consists of purchasing approximately 1,000 acres of land in and around the area of the 5th Parallel Runway, including all property associated with the new runway and adjacent taxiways, runway protection zones, and prescribed safety and operational areas.

## **31. Runway 3L-21R Centralized Deice Pad Expansion (Phase 2)**

This project provides further expansion of the deice pad adjacent to Runway 3L-21R in order to accommodate additional aircraft deicing positions as demand increases and will also enable the deicing operations to consolidate entirely from four locations to two locations. It is the intent of the airlines to centralize deicing operations over time to increase flexibility and operational efficiency.

The project includes approximately 30,000 square yards of additional pavement adjacent to the initial Runway 3L-21R Centralized Deice Pad Expansion project. The project also includes all necessary facilities and equipment for deicing operations, including underground piping and holding facilities, and required storage tanks. This project represents an extension of the existing deice pad by approximately 700 feet long by 400 feet wide.

### **32. North Public Parking Garage/Intermodal Center**

This project provides remote structured parking to meet the anticipated demand for additional on-Airport parking as well as providing a regional intermodal facility for connecting between various modes of transportation, including air, rail and automobile. This project recognizes the importance of the Airport as a connection point for a range of transportation modes within the region and provides a mechanism for organizing and integrating those transportation modes in a seamless system.

The project consists of developing a 3,000 space parking garage and intermodal center with retail and commercial space as well as connection to the Airport Transit System. This project includes ingress and egress, connections to adjacent public roads, an underpass below the adjacent train tracks, curbside drop-off and pick-up areas, kiss-and-ride and kiss-and-fly areas, and bus transfer areas. The facility will include all vertical and horizontal circulation, access control, and all necessary sitework, utilities, landscaping, marking, lighting and signage.

### **33. Concessions Distribution Center**

This project provides storage and administrative office space for receiving, screening, storing and distributing concession goods to the terminal areas. This project is expected to be needed in order to efficiently process concession goods as security requirements increase over time.

The project includes development of approximately 40,000 square feet of storage space with approximately 5,000 square feet of administrative office space. The project includes a truck dock, auto parking, access to the adjacent public roads, and all necessary sitework, utilities, roadway improvements, landscaping, and security fencing.

### **34. Relocated ARFF Training Facility**

This project provides a replacement for the existing ARFF training facility that will be displaced as a result of the construction of the 5th parallel runway.

The project includes the relocation of the ARFF Training Facility including construction of a 3,000 square foot building and all necessary equipment and controls as well as a 20,000 square foot propane fed gravel training area. The project also includes access to the public roads, auto parking, access control, and all necessary sitework, utilities, landscaping, and security fencing.

### **35. 5th Parallel Runway**

This project provides a new widely spaced (4,300 feet from existing runway 3R-21L) runway capable of accommodating triple independent precision approaches in conjunction with the other runways. The additional airfield capacity provided by this project is anticipated to be needed in order to accommodate projected activity demand within the planning period.

The project consists of a new 10,000 feet long by 200 feet wide runway with 35 feet wide shoulders and a parallel 75 feet wide taxiway located approximately 4,300 feet east of Runway

3R-21L. The new runway will be equipped with High Intensity Runway Lights and Category III Instrument Landing Systems and associated navigational aids. This project includes roadway tunnels under the runway and taxiway along Eureka Road and Middlebelt Road. Each tunnel will be approximately 2,000 feet in length and will include all necessary drainage and life safety provisions. All site work, utility relocation, lighting, signage and pavement markings are a part of the project.

### **36. Perimeter Taxiway for 5th Parallel Runway**

This project provides a new perimeter taxiway between the south end of the 5th parallel runway and Taxiway T that is routed around the south perimeter of Runway 3R. This project will enable aircraft to taxi unabated and avoid crossing any active runways, thereby providing the highest level of safety. This project reduces the potential for an incursion with another aircraft as well as reduces air traffic controller workload by eliminating the need to coordinate runway crossings.

The project includes approximately 9,000 feet of 75 foot wide taxiway between the 5th parallel runway and the Runway 3L Perimeter Taxiways, including all sitework, utility relocation, lighting, signage and pavement markings. The project also includes a roadway tunnel under the taxiway along Eureka Road. The tunnel will be approximately 2,000 feet in length and will include all necessary drainage and life safety provisions.

### **37. West Cargo Taxiway (Phase 3)**

This project provides taxiway infrastructure west of Runway 4L-22R in support of anticipated further cargo development in that area. The Airport has identified demand for additional on-airport cargo development through its ongoing marketing efforts and believes that additional on-airport cargo development in the future is also likely.

The project contemplates development of an additional 1,590 linear feet of a 75 feet wide taxiway parallel to, and west of, Runway 4L-22R. The project includes all sitework, pavement, lighting, signage and pavement markings.

### **38. Air Cargo Development (Phase 3)**

This project provides additional cargo development west of Runway 4L-22R. The Airport has identified demand for additional cargo development through its on-going marketing efforts and believes additional future demand is also likely.

The project contemplates development of one or more cargo buildings with truck dock, parking lot, landscaping, and access to Vining Road, adjacent aircraft apron and all necessary sitework, utilities, landscaping and security fencing.

### **39. Airfield Maintenance Complex Satellite**

This project provides a satellite complex to store and maintain the additional airfield maintenance and snow removal equipment that is anticipated to be needed based on the additional land and airfield facilities contemplated in this plan.

The project represents a new 50,000 square foot building with an additional 30,000 square feet of uncovered, paved surface for equipment storage. The project also includes an access road, auto parking, AOA access, and all necessary site work, utilities, landscaping, and security fencing.

### **40. McNamara Concourses B and C Expansion (20 Gates)**

This project provides additional aircraft gates and related concourse facilities at the McNamara Terminal that are anticipated to be needed in order to accommodate the projected future demand.

The project contemplates a 20 gate expansion of the McNamara Terminal, including holdrooms, operations space and all necessary public space and mechanical systems. The project includes aircraft apron, underground fueling system, jetbridges, fixtures furniture and equipment, and all sitework, pavement, lighting, signage and pavement markings.

### **41. Perimeter Aircraft Rescue Fire Fighting (ARFF) Station 500**

This project provides an additional ARFF station on the eastern perimeter of the Airport. The FAA has encouraged the WCAA to plan to transition from a centralized response coverage strategy to a perimeter response coverage strategy. This project will improve incident response times to portions of the east airfield, including the planned 5th Parallel Runway, in accordance with the direction of the FAA's Certification division.

The project represents the development of a new 8,800 square feet ARFF station, including landside and airside roadways, a 10-space parking lot all necessary sitework, utilities, roadway improvements, landscaping, and security fencing.

### **42. North Terminal Expansion (5 Gates)**

This project provides additional aircraft gates and related concourse facilities at the North Terminal that are anticipated to be needed in order to accommodate the projected future demand.

The project contemplates a 5-gate expansion of the North Terminal, including holdrooms, operations space and all necessary public space and mechanical systems. The project includes aircraft apron, underground fueling system, jetbridges, fixtures furniture and equipment, and all sitework, pavement, lighting, signage and pavement markings.

### **43. Runway 4R-22L Centralized Deice Pad Expansion (Phase 2)**

This project provides a further expansion of the deice pad adjacent to Runway 4R-22L in order to accommodate additional aircraft deicing positions as demand increases and will also enable the

deicing operations to consolidate entirely from four locations to two locations. It is the intent of the airlines to centralize deicing operations over time to increase flexibility and operational efficiency.

The project includes redeveloping approximately 540,000 square feet of existing apron east of the initial Runway 4R-22L Centralized Deice Pad Expansion. This project includes all necessary facilities and equipment for deicing operations, including underground piping and holding facilities, and glycol storage tanks. The project includes sitework and pavement rehabilitation to implement the proper grades and incorporate the appropriate drainage and spent deicing fluid storage and reclamation capability. The project also includes all necessary painting, lighting, marking, and signage for the deice pad and vehicle storage and queuing areas.

#### **44. Taxiway J Extension**

This project provides an extension of Taxiway J from Runway 3R to the new 5th parallel runway in order to provide bi-directional taxi flow capability between Runway end 27L and the terminal areas. This project is anticipated to be beneficial during crosswind operations in order to accommodate mixed operations (arrivals and departures) on Runway 27L.

The project includes approximately 450,000 square feet of paving, and all sitework, utilities, lighting, signage and pavement markings.

#### **45. Taxiway S Extension**

This project provides an extension of Taxiway S from Taxiway T to Taxiway U in order to provide direct access routes between Runways 27R and 27L and the general aviation facilities on the east side of the Airport.

The project includes approximately 20,000 square yards of paving, and all sitework, utilities, lighting, signage and pavement markings.

#### **46. Taxiway U Extension**

This project provides an extension of Taxiway U from the McNamara Terminal to Runway 27R in order to facilitate more direct taxi route between the McNamara Terminal and Runway 27R, and eliminating the need for the carriers operating from the McNamara Terminal to cross an active runway to depart from Runway 27R.

The project includes approximately 450,000 square feet of paving, all sitework, utilities, lighting, signage and pavement markings.

#### **47. Taxiway H Extension**

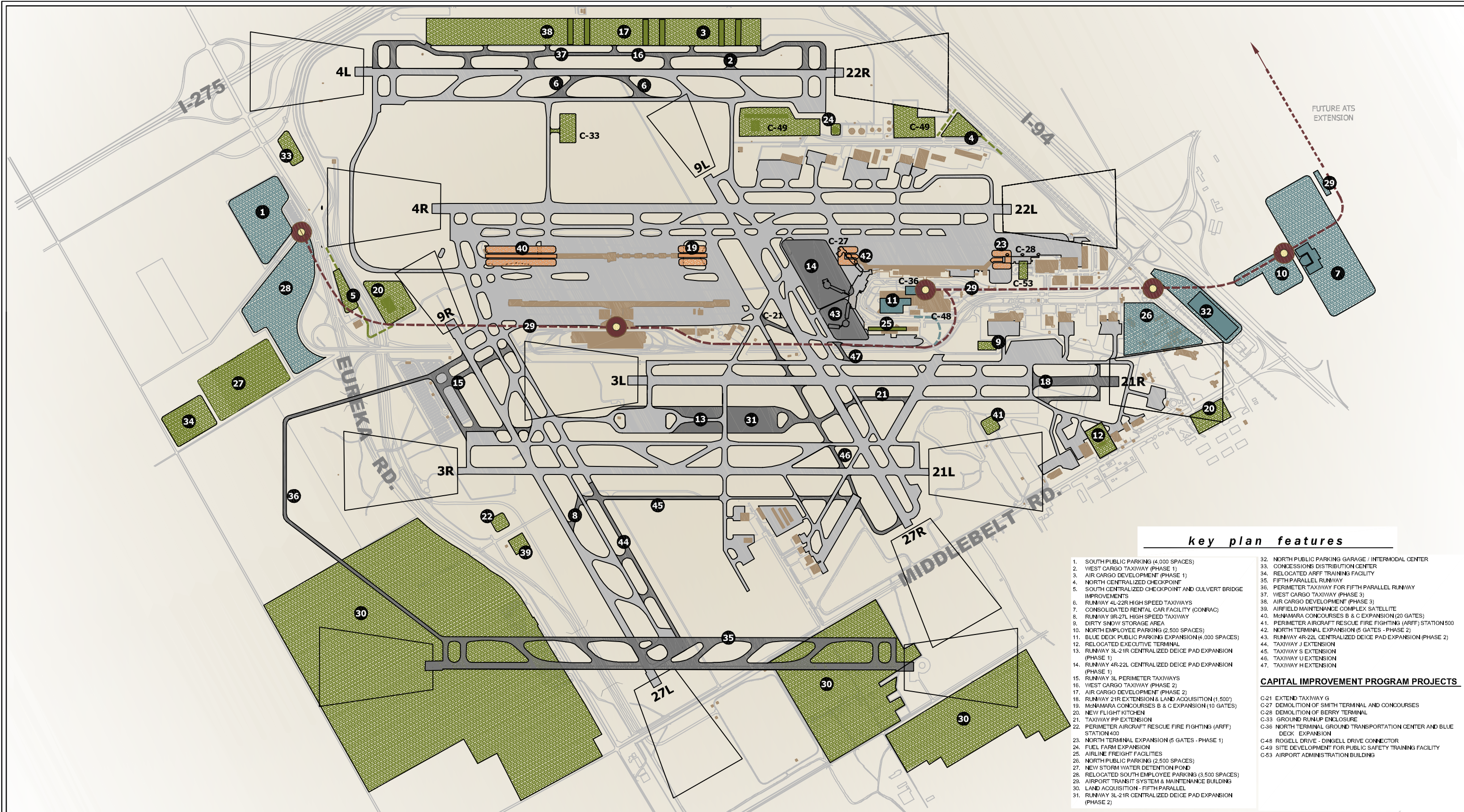
This project provides an extension of Taxiway H across Dingell Drive in order to provide bi-direction taxi flow in this area. This area of the airfield is critical for sequencing aircraft along Taxiway M and Runway 21R and is currently inefficient because of a lack of routes. In the past,



Runway 9L-27R has been used as an additional taxiway to sequence aircraft, but the FAA has indicated that the use of Runway 9L-27R as a taxiway will be restricted in the future.

The project represents a taxiway bridge that will serve as an extension of Taxiway H east to Taxiway M. This project includes approximately 5,000 square yards of paving, structural enhancements, and all sitework, utilities, lighting, signage and pavement markings.





**key plan features**

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| <ul style="list-style-type: none"> <li>1. SOUTH PUBLIC PARKING (4,000 SPACES)</li> <li>2. WEST CARGO TAXIWAY (PHASE 1)</li> <li>3. AIR CARGO DEVELOPMENT (PHASE 1)</li> <li>4. NORTH CENTRALIZED CHECKPOINT</li> <li>5. SOUTH CENTRALIZED CHECKPOINT AND CULVERT BRIDGE IMPROVEMENTS</li> <li>6. RUNWAY 4L-22R HIGH SPEED TAXIWAYS</li> <li>7. CONSOLIDATED RENTAL CAR FACILITY (CONRAC)</li> <li>8. RUNWAY 9R-27L HIGH SPEED TAXIWAY</li> <li>9. DIRTY SNOW STORAGE AREA</li> <li>10. NORTH EMPLOYEE PARKING (2,500 SPACES)</li> <li>11. BLUE DECK PUBLIC PARKING EXPANSION (4,000 SPACES)</li> <li>12. RELOCATED EXECUTIVE TERMINAL</li> <li>13. RUNWAY 3L-21R CENTRALIZED DEICE PAD EXPANSION (PHASE 1)</li> <li>14. RUNWAY 4R-22L CENTRALIZED DEICE PAD EXPANSION (PHASE 1)</li> <li>15. RUNWAY 3L PERIMETER TAXIWAYS</li> <li>16. WEST CARGO TAXIWAY (PHASE 2)</li> <li>17. AIR CARGO DEVELOPMENT (PHASE 2)</li> <li>18. RUNWAY 21R EXTENSION &amp; LAND ACQUISITION (1,500')</li> <li>19. McNAMARA CONCOURSES B &amp; C EXPANSION (10 GATES)</li> <li>20. NEW FLIGHT KITCHEN</li> <li>21. TAXIWAY PP EXTENSION</li> <li>22. PERIMETER AIRCRAFT RESCUE FIRE FIGHTING (ARFF) STATION 400</li> <li>23. NORTH TERMINAL EXPANSION (5 GATES - PHASE 1)</li> <li>24. FUEL FARM EXPANSION</li> <li>25. AIRLINE FREIGHT FACILITIES</li> <li>26. NORTH PUBLIC PARKING (2,500 SPACES)</li> <li>27. NEW STORM WATER DETENTION POND</li> <li>28. RELOCATED SOUTH EMPLOYEE PARKING (3,500 SPACES)</li> <li>29. AIRPORT TRANSIT SYSTEM &amp; MAINTENANCE BUILDING</li> <li>30. LAND ACQUISITION - FIFTH PARALLEL</li> <li>31. RUNWAY 3L-21R CENTRALIZED DEICE PAD EXPANSION (PHASE 2)</li> </ul> | <ul style="list-style-type: none"> <li>32. NORTH PUBLIC PARKING GARAGE / INTERMODAL CENTER</li> <li>33. CONCESSIONS DISTRIBUTION CENTER</li> <li>34. RELOCATED ARFF TRAINING FACILITY</li> <li>35. FIFTH PARALLEL RUNWAY</li> <li>36. PERIMETER TAXIWAY FOR FIFTH PARALLEL RUNWAY</li> <li>37. WEST CARGO TAXIWAY (PHASE 3)</li> <li>38. AIR CARGO DEVELOPMENT (PHASE 3)</li> <li>39. AIRFIELD MAINTENANCE COMPLEX SATELLITE</li> <li>40. McNAMARA CONCOURSES B &amp; C EXPANSION (20 GATES)</li> <li>41. PERIMETER AIRCRAFT RESCUE FIRE FIGHTING (ARFF) STATION 500</li> <li>42. NORTH TERMINAL EXPANSION (5 GATES - PHASE 2)</li> <li>43. RUNWAY 4R-22L CENTRALIZED DEICE PAD EXPANSION (PHASE 2)</li> <li>44. TAXIWAY J EXTENSION</li> <li>45. TAXIWAY S EXTENSION</li> <li>46. TAXIWAY U EXTENSION</li> <li>47. TAXIWAY H EXTENSION</li> </ul> |
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**CAPITAL IMPROVEMENT PROGRAM PROJECTS**

- C-21 EXTEND TAXIWAY G
- C-27 DEMOLITION OF SMITH TERMINAL AND CONCOURSES
- C-28 DEMOLITION OF BERRY TERMINAL
- C-33 GROUND RUNUP ENCLOSURE
- C-36 NORTH TERMINAL GROUND TRANSPORTATION CENTER AND BLUE DECK EXPANSION
- C-48 ROGELL DRIVE - DINGELL DRIVE CONNECTOR
- C-49 SITE DEVELOPMENT FOR PUBLIC SAFETY TRAINING FACILITY
- C-53 AIRPORT ADMINISTRATION BUILDING

\* For Diagrammatic and Illustrative Purposes Only

Plan depicts projects anticipated to be implemented by year 2027

Detroit Metropolitan  
Wayne County Airport

MASTER PLAN STUDY

**PREFERRED DEVELOPMENT PLAN**

