

GVMC



***GRAND VALLEY METROPOLITAN COUNCIL
AIRPORT ACCESS STUDY***

***Final Report
March 2023***

AECOM

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TABLE OF CONTENTS

1. INTRODUCTION	1
2. PUBLIC ENGAGEMENT	3
3. PURPOSE AND NEED	5
4. ALTERNATIVES DEVELOPMENT AND EVALUATION	7
5. PREFERRED PROJECTS	11
6. FUTURE OPTIONS	19
7. NEXT STEPS	20

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1. INTRODUCTION

Overview

Gerald R. Ford International Airport (GRR) is a commercial airport approximately 13 miles southeast of Downtown Grand Rapids. GRR has been experiencing rapid growth over the past two decades, and has plans for significant expansion in the near future. The Grand Valley Metropolitan Council (GVMC) Airport Access Study investigated ways to improve access to the airport as well as the surrounding local road and freeway systems.

The study area is an approximately one-mile area around the airport that is used to evaluate potential access paths and surrounding land use and development. The study area is shown in the map on this page and includes East Paris Avenue to the west, Thornapple River to the east, 28th Street (M-11) to the north, and 68th Street to the south. It includes parts of the City of Kentwood, Cascade Charter Township, Gaines Charter Township, and Caledonia Township, all within Kent County, Michigan. Major adjacent transportation assets include the GRR, I-96 and M-6, and the CSX rail lines. Nearby development includes Davenport University and the large concentration of industrial and commercial development primarily on the west side of the airport.



Study Area

Technical Advisory Committee (TAC)

To assist in management of the project and consideration of enhancement options, GVMC assembled a Technical Advisory Committee (TAC) that included representatives from adjacent municipalities, transportation agencies, and business and tourism industries. As key stakeholders, the team participated in the project process and advised on key decisions.

Each TAC meeting provided a project status update and information on public engagement. The TAC met four times through the process:

TAC Meeting #1 (**February 2022**): Existing Conditions, Conceptual Alternatives, Phase 1 Engagement Plan

TAC Meeting #2 (**June 2022**): Purpose and Need, Evaluation Criteria and Process, Phase 2 Engagement Plan

TAC Meeting #3 (**October 2022**): Practical Alternatives Analysis, Preliminary Recommended Alternatives

TAC Meeting #4 (**December 2022**): Recommended Alternatives, Phase 3 Engagement Plan



Michigan Department of Transportation
(Grand Region)



Kent County



Gerald R. Ford International Airport



The Rapid



Kent County Road Commission



The Right Place



Cascade Charter Township



Grand Rapids Chamber



City of Kentwood



Experience Grand Rapids

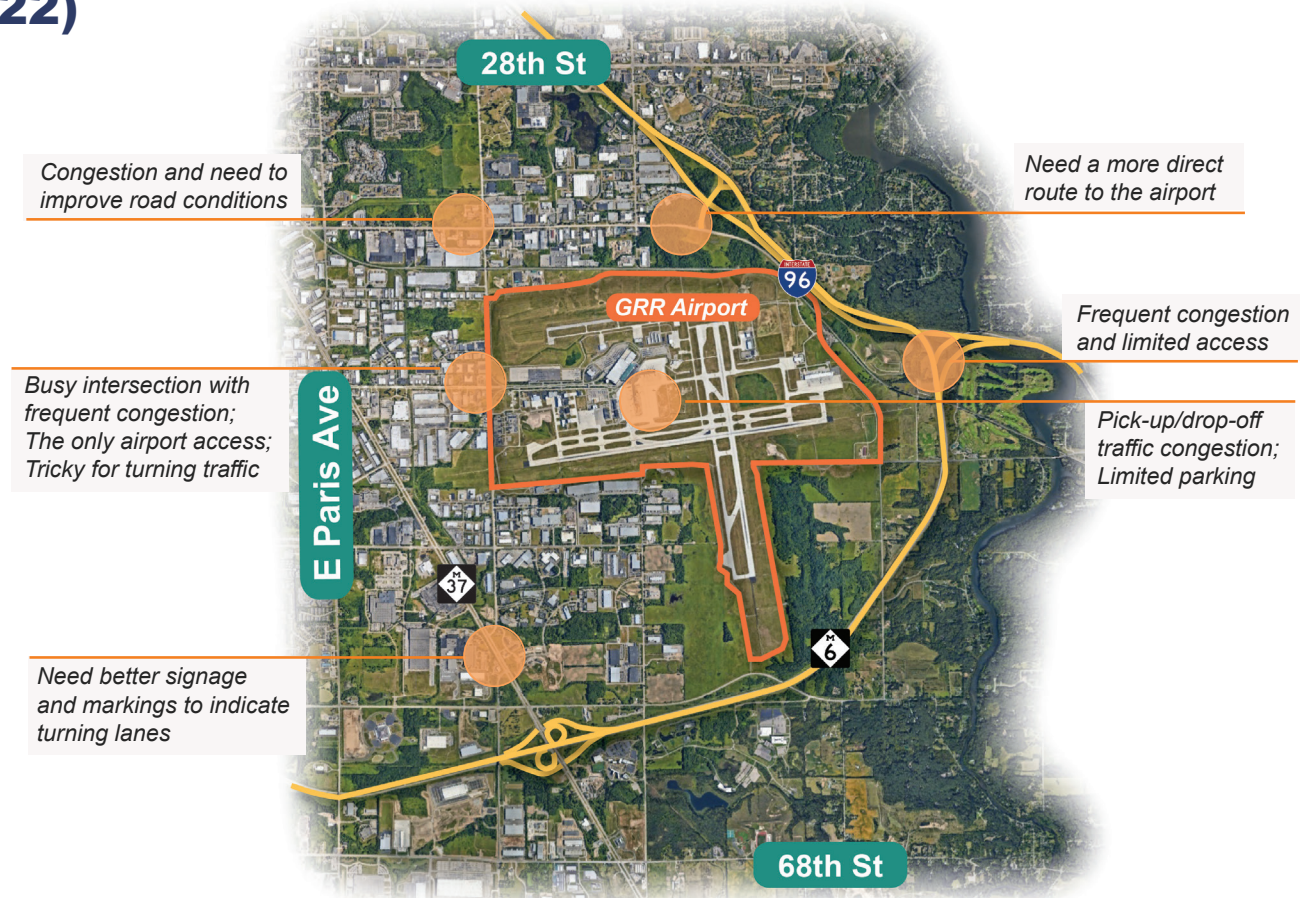
2. PUBLIC ENGAGEMENT

The Study involved three phases of public engagement to educate the public and gather input during and after the development of the alternatives. Engagement activities included an in-person public open house, virtual public meeting, and an online story map with a survey. A detailed summary of engagement results was compiled for each phase, and can be found on the [GVMC website](#).

Phase 1 (March/April 2022)

During Phase 1 Public Engagement, participants were informed about the current transportation and economic conditions within the Study Area. The survey asked about people’s travel modes to and/or from the airport and whether there are significant issues accessing the airport. It included a map-based question which allowed people to identify challenges and opportunities of airport access at specific locations. More than 3,000 people within the GVMC region participated in the survey, which included the following themes:

- ▶ The need for a more direct route to the airport from I-96
- ▶ Congestion issues at the Patterson Avenue/44th Street intersection, which is currently the primary access point to the airport. This traffic makes turning and merging difficult
- ▶ The need for better signage and markings at the 36th Street/Patterson Avenue intersection and the airport entrance
- ▶ Limited options to access the airport via transit, biking and walking
- ▶ Congestion and safety issues near surrounding freeway interchanges



Frequently offered map-based comments from Phase 1 Engagement online survey

Phase 2 (August/September 2022)

Phase 2 Public Engagement provided opportunities for participants to examine the Practical Alternatives. A story map with an introduction to each alternative was shared on the GVMC website, along with an online survey. The survey further explored people's preferences on the specific types of airport access improvement, and asked how much they would support each alternative.

More than 2,000 local participants within the GVMC region submitted their responses. The

results show an overall support for the Practical Alternatives.

Top priorities of airport access are shown in the chart below. The most preferred airport access improvements were "More public transit and shuttle options to the airport and surrounding area" and "Secondary access point from the north or east".

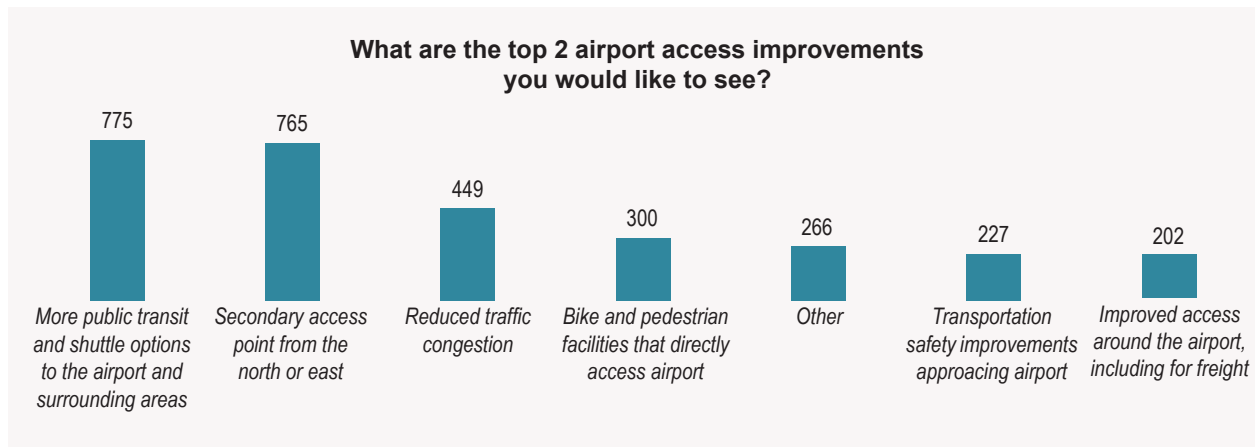
Phase 3 (January/February 2023)

Phase 3 Public Engagement advised the public on the Preferred Projects and Future

Options. Two Public Open House events were held in Kentwood and Cascade Township. Over 100 residents joined the events to learn about the Study Background, Evaluation Process, and Preferred Projects.

A virtual public meeting was held online to present the Study. At the same time, a story map with descriptions of the Preferred Projects and the Future Options was shared on the GVMC website, and an online survey opened to ask the public about prioritization of the Preferred Projects and consideration of the Future Options.

In the third phase, nearly 600 people participated in the survey. Overall, results of Phase 3 Public Engagement show support for the Preferred Projects. Among these projects, **I-96/36th Street Access** received significantly higher support. Most participants considered these Preferred Projects as "medium" to "high" priority for implementation. There are mixed opinions regarding the Future Options. The general results show a slight preference for **M-6 Interchanges** and **Expanded Curb Access** as priorities for future implementation. However, **M-6 Interchanges** received relatively low support from participants with zip code residence in Kentwood and Cascade Township near GRR. These Future Options will need further study accompanied by public input.



Top 2 selected airport access improvements from Phase 2 Engagement online survey

3. PURPOSE AND NEED

Existing Conditions

During the initial phase of the Study, the project team developed a comprehensive overview of the existing transportation, economic and land use conditions, as well as the previous regional and local planning efforts impacting the area. Detailed existing conditions information from the Study can be found in the [Existing Conditions Technical Memorandum](#). Overall, the main themes from this report are included in the elements below.

Limited Access

Public vehicular access to the airport terminal is currently limited to the Patterson Avenue and 44th Street/Oostema Boulevard intersection and, secondarily, the Patterson Avenue and Van Laar Drive intersection. Periodic safety events or congestion could significantly limit the ability to access GRR. Additional access to and potentially through GRR could add redundancy to the airport access network.

Airport Expansion Plans

GRR is the second largest airport in Michigan behind the Detroit Metropolitan Wayne County Airport (DTW) with about 3,200 acres of land, \$3.1 billion of annual economic impact to West Michigan, and over 100 businesses

supporting over 2,000 direct jobs. GRR has experienced rapid growth over the past few years and is positioned for continued growth in the future.

The region of Grand Rapids is also growing. Recent growth and projected future growth highlight the important relationship between regional and airport expansion, a reality demonstrated in recent airport master planning, the demand for direct and reliable access will only grow. At the same time, this momentum toward airport expansion makes it increasingly important to help ensure compatibility with other airside infrastructure investments and their construction.

Indirect Circulation

Public access from major expressways and cargo access from the FedEx Sort Facility on 52nd Street follows a circuitous route along local streets. Based on previous planning for the I-96 and M-6 corridors, there may be opportunities to create a more direct access route that enables faster access, especially from areas north and east of GRR.

Surrounding Growth and Development

The airport area is one of the areas expected to grow most in the entire region according to the GVMC 2045 Metropolitan *Transportation*

Plan. To accommodate such growth, access to GRR has become a critical local and regional priority.

Plans for the area immediately surrounding the airport include several areas of new development as well as many new nonmotorized facilities. This presents potential future challenges to accommodate more people traveling in the study area and to ensure the safety of nonmotorized users as they navigate a predominantly vehicle-oriented environment.

Expanding Access Options

Technology is changing how people get to and from the airport, with an uptick in Transportation Network Company (TNC, such as Uber or Lyft) and carshare use decreasing the expected future parking demand. In addition, The Rapid has recently initiated or planned additional public transit services that could improve access to GRR. These shifts underscore a potential need to prioritize curbside access for these modes in the future as a way to reduce congestion and the need for additional parking.

Based on the existing conditions analysis as well as the initial phase of public engagement, GVMC and its project partners developed the following Purpose and Need" for the project:

Study Purpose

"Expand multi-modal access options for the Gerald R. Ford International Airport and improve the connectivity of the surrounding local road and freeway network, in order to facilitate future airport expansion and accommodate regional growth and development (increasing population and jobs) in southeastern Kent County."

Study Needs

According to the existing conditions, the Study aims to improve or support the listed issues:



Limited Access Points to Airport's Core



Indirect Circulation (around Airport and from Major Expressways)



Providing for Surrounding Growth and Development



Support for Airport Expansion Plans



Expansion of Convenient Access Options

4. ALTERNATIVES DEVELOPMENT AND EVALUATION

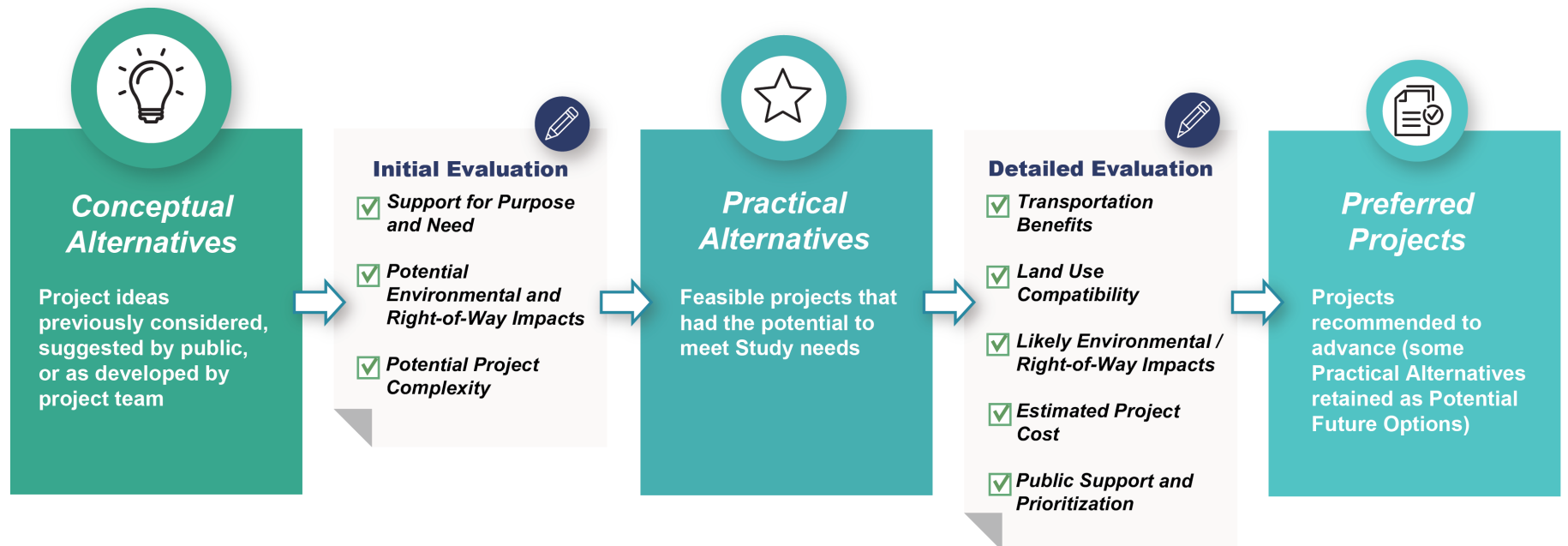
Evaluation Process and Criteria

The Study utilized a two-step evaluation process which consisted of an *initial evaluation* and a second round of *detailed evaluation*. The evaluation process and evaluation criteria are shown below. The full evaluation can be found in the *Initial and Practical Alternatives Evaluation Technical Memorandums* on the [GVMC website](#).

Conceptual and Practical Alternatives

The Study Team developed Conceptual Alternatives based on previous plans, issues identified in the existing conditions study, and input from the public. These were divided into two categories of *Airport Roadway Access*, which mainly considers improvements of vehicular access to the airport, and *Multi-modal Enhancements*, which includes transit,

rail and non-motorized access. Selected Roadway Access alternatives were developed to include multiple options. For example, the creation of an additional M-6 interchange on the east side of the airport could occur at multiple locations (but only one would be viable).



Evaluation Process and Criteria

Initial Evaluation


The potential projects for improving access in and around the Airport are presented on the map below. All of the *Airport Roadway Access* alternatives passed the initial evaluation except **Alternative 3b: M-6 Interchange -**


Egan Avenue Interchange variation, which had high potential right-of-way impact and high project complexity.


Among the *Multi-Modal Enhancement* alternatives, **Alternative 3: Passenger Rail Service** was not carried forward from the


initial evaluation due to its potential large scale railway upgrades, which results in high right-of-way impact and high project complexity.


Airport Roadway Access

- 

1 I-96/36th Street Access
1a - Direct Access
1b - Indirect Access
- 

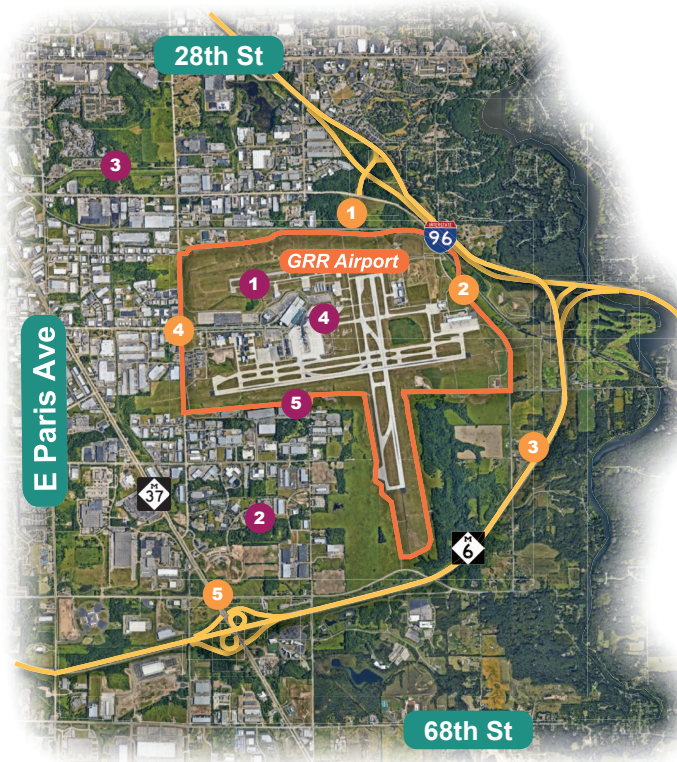
2 Thornapple River Drive Access
1a - Direct Access
1b - Indirect Access
- 

3 M-6 Interchanges
3a - 60th St Interchange
3b - Egan Ave Interchange*
3c - Thornapple River Dr and 48th St Interchange
3d - 48th St Interchange
- 

4 Patterson Avenue/44th Street Safety Enhancement
- 


5 M-37/Patterson Avenue/60th Street Safety Enhancement


Alternatives with * did not qualify as Practical Alternatives





Conceptual and Practical Alternatives


Multi-modal Enhancements

- 

1 Downtown Express Bus / Shuttle
- 

2 Expanded Transit Service (Cascade / Caledonia)
- 

3 Passenger Rail Service*
- 

4 Expanded Curb Management
- 

5 Pedestrian / Bike Connectivity Enhancements

Detailed Evaluation

Airport Roadway Access

Based on the evaluation process, **I-96/36th Street Access Direct Access** emerged as the preferred secondary access point to the airport terminal, although this project will

require additional time for implementation due to its high cost and the need for coordination with potential airport runway construction. **I-96/36th Street Access Indirect Access** and **Air Cargo Drive Access** are no longer qualified alternatives due to their lower overall score. **Thornapple River Drive Secondary**

Freight Access and the two safety enhancements projects received relatively high ratings and they are also preferred projects for Airport Roadway Access.

Alternative	Variation	Transportation Benefit	Planning / Land Use Compatibility	Environmental/ ROW Impacts	Estimated Project Cost	Public Support and Prioritization	Overall Rating
I-96/36th Street Access	Direct I-96/36th St Access	●	◐	◐	◐	●	◐
	Indirect I-96/36th St Access	◐	◐	◐	◐	◐	◐
Thornapple River Drive Access	Secondary Freight Access	◐	●	●	●	◐	●
	Air Cargo Dr Access	●	◐	●	○	◐	◐
M-6 Interchange	60th St Interchange and Ring Road	◐	◐	◐	◐	◐	◐
	Thornapple River Dr and 48th St Partial Interchanges	◐	◐	◐	◐	◐	◐
	48th St Full Interchange	◐	◐	◐	◐	◐	◐
Patterson Ave /44th St Enhancements	N/A	◐	◐	●	◐	◐	◐
M-37/Patterson Ave/60th St Intersection Enhancements	N/A	◐	◐	●	◐	◐	◐

Address the criteria the least ○ ◐ ◑ ◒ ◓ Address the criteria the most

Airport Roadway Access Detailed Evaluation Results

Multi-Modal Enhancements

Based on the evaluation of Multi-Modal Enhancement Projects, those recommended for implementation are **Downtown Express Bus/Shuttle** and **Pedestrian/Bike Connectivity Enhancements**. Additional projects that were considered but deemed a

lower priority included **Expanded Transit Service**, which will require further coordination with transit operators and local jurisdictions to both fund and plan for service needs over the long term. **Expanded Curb Management** includes additional space for pick-up and drop-off and possibly the addition

of a new level to allow for splitting arrival and departure traffic. This will remain a focus of Airport expansion efforts. Each will be future considerations but are not preferred projects for implementation at this stage.

Alternative	Transportation Benefit	Planning / Land Use Compatibility	Environmental/ ROW Impacts	Estimated Project Cost	Public Support and Prioritization	Overall Rating
Downtown Express Bus/Shuttle	●	●	●	◐	●	◐
Expanded Transit Service (nearby airport)	◐	◐	●	◐	◐	◐
Expanded Curb Access/Management	◐	●	●	●	◐	◐
Pedestrian/Bike Connectivity Enhancements	◐	●	●	●	◐	◐

Address the criteria the least ○ ◐ ◑ ◒ ◓ Address the criteria the most

Multi-Modal Enhancements Detailed Evaluation Results

5. PREFERRED PROJECTS

The Study has identified a set of Preferred Projects for advancement, which are presented in more detail on the pages that follow. Each includes a defined timeline for implementation, conceptual design and a range of costs developed along with potential funding pathways. Additional design, input and environmental reviews will be needed for preferred projects to advance.

According to the evaluation results, Preferred Projects are the following:

- ▶ ***I-96/36th Street Access Direct Access***
- ▶ ***Thornapple River Drive Secondary Freight Access***
- ▶ ***Patterson Avenue /44th Street Safety Enhancements***
- ▶ ***M-37/Patterson Avenue/60th Street Intersection Enhancements***
- ▶ ***Downtown Express Bus/Shuttle***
- ▶ ***Pedestrian/Bike Connectivity Enhancements***

I-96/36th Street Direct Access

Long-Term

Airport Roadway Access

Project Sponsor: GRR, Michigan Department of Transportation (MDOT)

Estimated Construction Cost: \$157 million

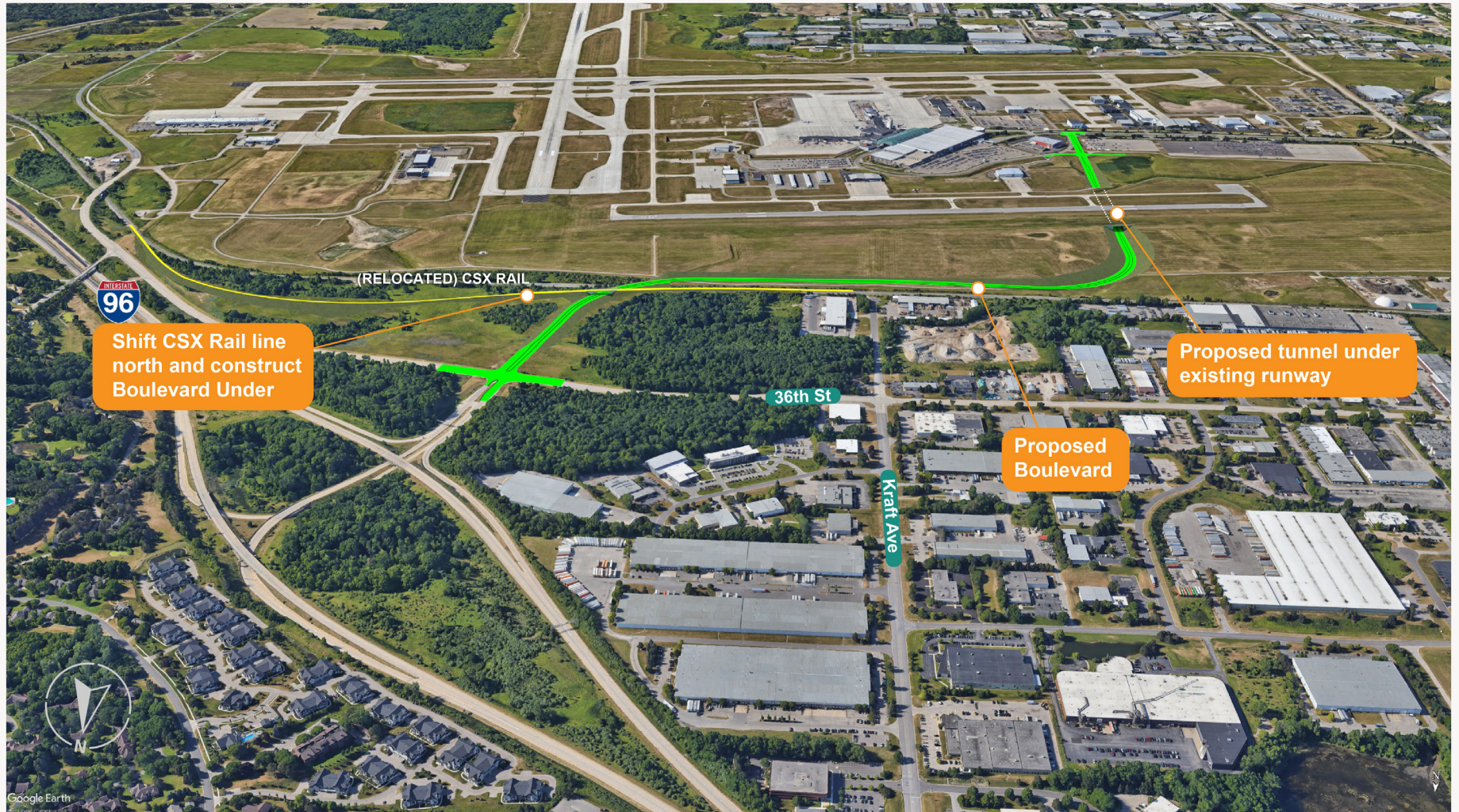
Implementation Timeline: 5-10 Years

This project extends the I-96/36th Street interchange south of 36th Street to create a direct roadway connection to the airport. It includes a tunnel below the current and future expanded runway and avoids parking expansion zone on north side of terminal. This access would relieve traffic entering the airport from Patterson Avenue and adds redundancy to the current airport access network.

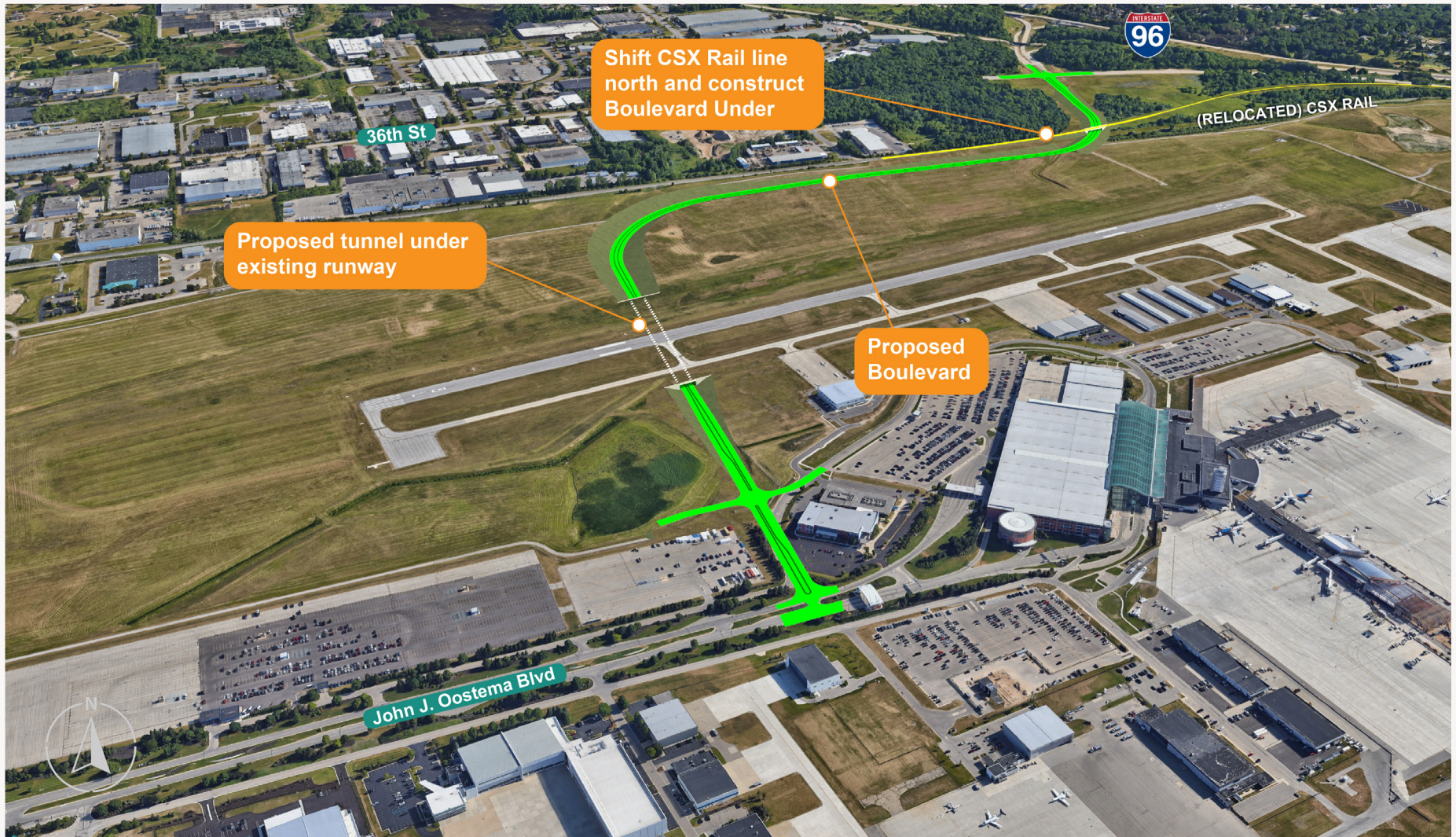
The construction could be phased in along with airport expansion. Once implemented, the new access could save approximately 4 minutes travel time compared to the existing access from I-96/36th St and Patterson Avenue.

Funding Options: Funding for a project of this scale will rely on State and Federal transportation dollars, and could be competitive for either transportation or economic development grants.

Next Steps: Preliminary Design and Environmental Reviews



Proposed I-96/36th Street Direct Access (View 1)



Proposed I-96/36th Street Direct Access (View 2)

Thornapple River Freight Access

Near-Term

Airport Roadway Access

Project Sponsor: GRR, Kent County Road Commission (KCRC)

Estimated Construction Cost: \$2M

Implementation Timeline: Next 5 Years

This alternative adds a new access point on Thornapple River Drive near the current freight access point next to FedEx Ship Center, which supports the growing cargo operations hub. This access enhancement is a portion of the Airport's recent Master Plan.

Funding Options: This will be an Airport-funded project, as it will occur primarily on Airport property.

Next Steps: Preliminary Design



Proposed Thornapple River Freight Access

Patterson Avenue/ 44th Street Safety Enhancements

Near-Term

Airport Roadway Access

Project Sponsor: GRR, KCRC, City of Kentwood

Estimated Construction Cost:

Approximately \$2M - \$4M

Implementation Timeline: Next 5 Years

This intersection is a significantly high crash activity spot with an incomplete pedestrian network. The project reconfigures roadway access to open possibility for airport-related commercial development, provides additional turn lanes at Patterson and 44th to accommodate existing and future traffic demand, and adds additional access and exit road onto Patterson Avenue.

Funding Options: Funding will likely be assembled via the programmed funding available to the Airport and the Kent County Road Commission

Next Steps: Preliminary Design and Traffic Studies



Proposed Patterson Avenue/44th Street Safety Enhancements and Surrounding Development

M-37/Patterson Avenue/60th Street Safety Enhancements

Near-Term

Airport Roadway Access

Project Sponsor: MDOT

Estimated Construction Cost: Less than \$1M (as part of MDOT widening project)

Implementation Timeline: Next 5 Years

Currently, these intersections have the highest crash activity within the study area. This project builds eastbound to southbound right turn lane marking extension to reduce sideswipe accidents, and adds signing and marking to southbound M-37 from north of 60th Street to M-6. There is also planned roadway widening along M-37 by MDOT.

Funding Options: Michigan DOT will use a combination of state and federal transportation funding sources.

Next Steps: Preliminary Design and Traffic Studies



Proposed M-37/Patterson Avenue/60th Street Safety Enhancements

Downtown Express Bus/Shuttle

Near-Term

Multi-modal Enhancements

Project Sponsor: The Rapid

Estimated Construction Cost: \$800K to \$1.8M depending on chosen concept

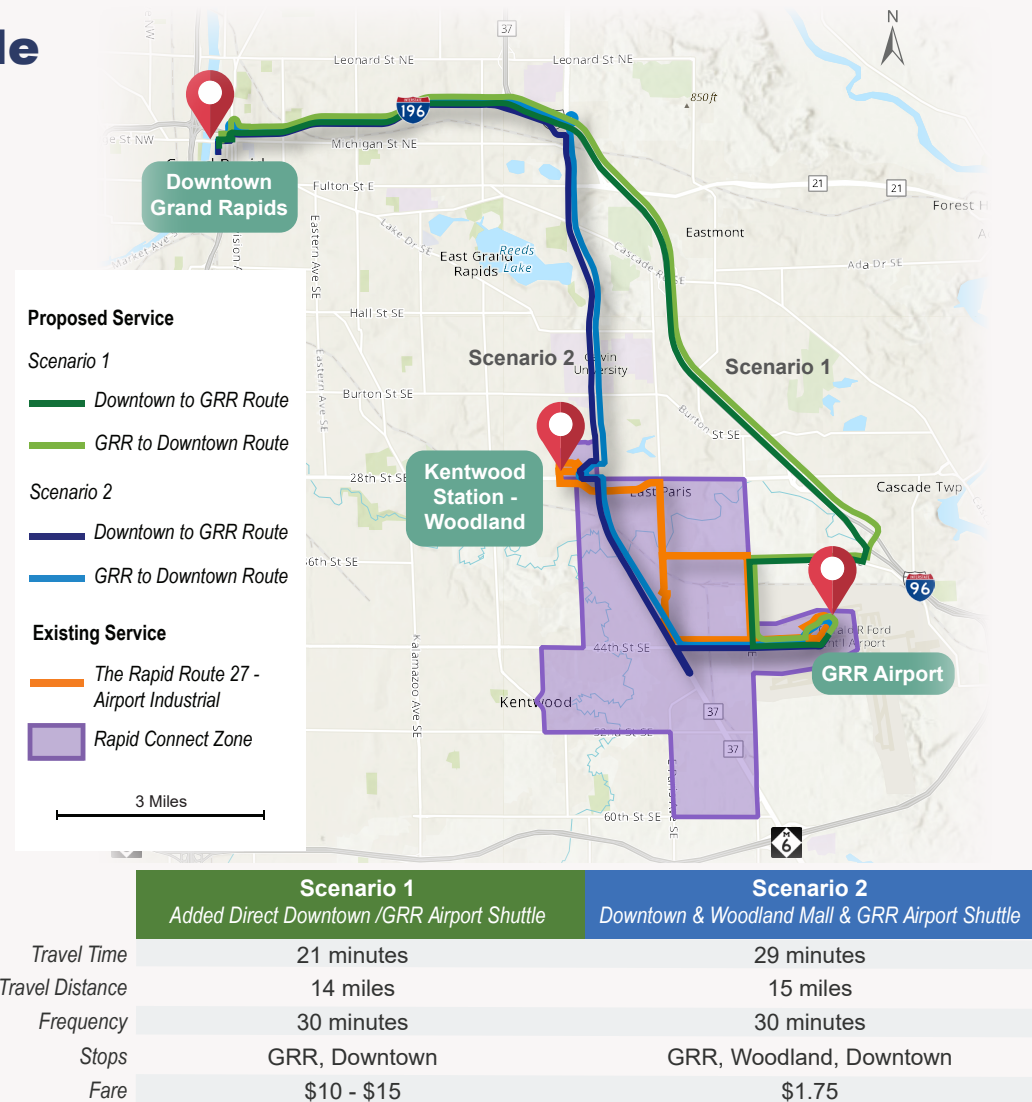
Implementation Timeline: Next 5 Years

Two scenarios are proposed for the Downtown Express Bus/Shuttle:

In Scenario 1, the direct shuttle departs every 30 minutes and stops at Downtown Grand Rapids and GRR Airport. In Scenario 2, the added shuttle serves as part of The Rapid bus system. It stops at Downtown Grand Rapids, Woodland, and GRR Airport.

Funding Options: The Rapid could fund through their ongoing budget, which relies on a mix of local (millage), state and federal funding. Based on examples from other regions, additional resources may be available through public or private partnerships, such as with the Airport, Convention and Visitor’s Bureau, or other business / tourism interests.

Next Steps: Operations Planning and Funding Coordination



Proposed Downtown Express Route Scenarios

Pedestrian/Bike Connectivity Enhancements

Near-Term

Long-Term

Multi-modal Enhancements

Project Sponsor: GRR, KCRC, City of Kentwood, Cascade Charter Twp

Estimated Construction Cost: Low

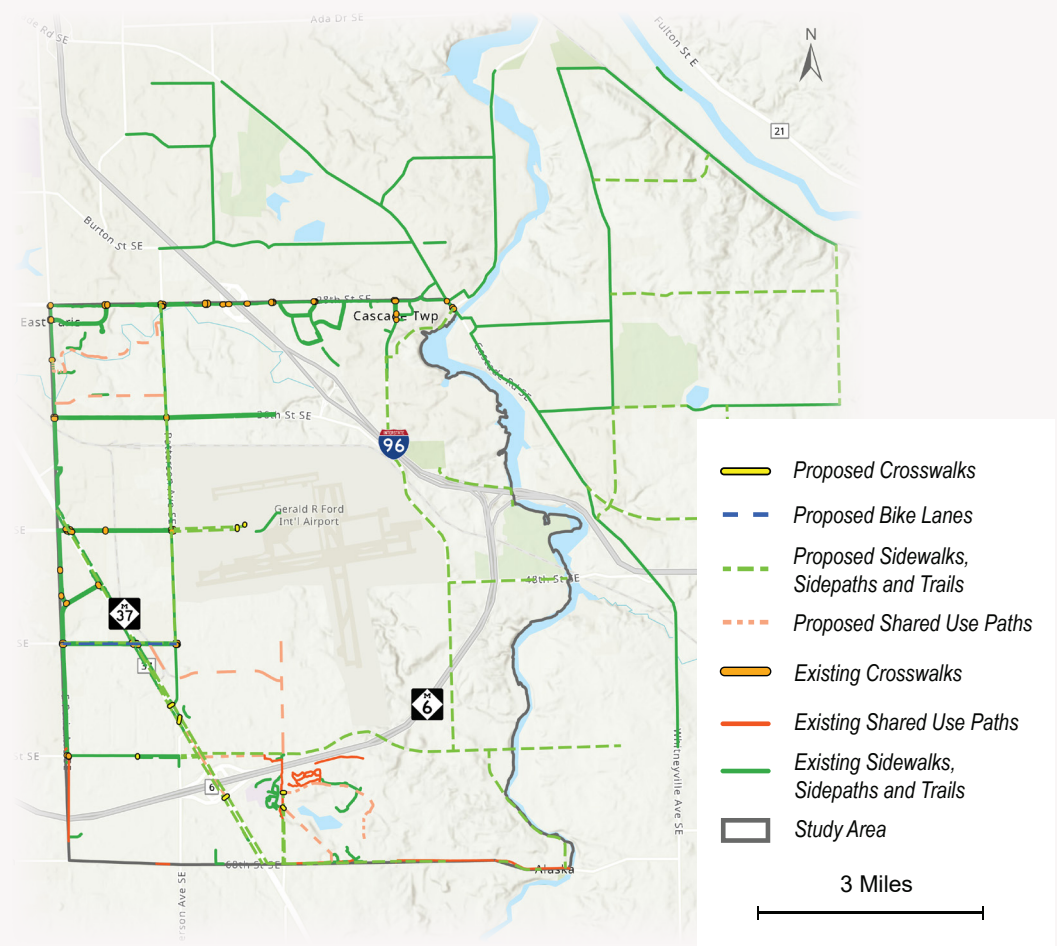
Implementation Timeline: Next 5 Years/5-10 Years

Recommended non-motorized connections are:

- ▶ Sidewalks/Sidepaths along 44th St/Oostema Blvd from - Patterson Ave to West Michigan Aviation Academy (Part of 2019 Airport Master Plan)
- ▶ New nonmotorized facilities are also contained in regional planning for corridors including along Patterson Ave, Broadmoor Ave (M-37), in the 52nd St and Kraft Ave corner of the Four Corners, and in the Davenport University area
- ▶ Proposed trail extensions along 60th Street, Thornapple River Drive, and 48th Street (Part of 2022 Cascade Township Strategic Plan)

Funding Options: Individual projects are likely to be advanced by local jurisdictions (cities and townships), potentially supported by state or federal grants.

Next Steps: Preliminary Design and Funding Coordination



Existing and Proposed Non-motorized Facilities

6. FUTURE OPTIONS

Potential Future Options are project opportunities that help address current and future transportation needs, but that are unlikely to be implemented in the near term. These could be considered in the future by the jurisdictions and infrastructure owners.

Expanded Curb Management

Multi-modal Enhancements

Project Sponsor: GRR

This option proposes terminal curb extension to accommodate and separate departure and arrival traffic. It is likely to be undertaken with future Airport expansion.

Next Steps: Design and Demand Studies



Expanded Transit Service (Cascade/Caledonia)

Multi-modal Enhancements

Project Sponsor: Caledonia Twp, Cascade Charter Twp, The Rapid

This option would add fixed-route or on-demand transit services in Cascade/Caledonia and better connects to growing job cluster near Airport. However, currently Cascade/Caledonia is not part of The Rapid's service area.

Next Steps: Community Engagement and Operations Planning



Future Options



M-6 Interchange near 48th Street and 60th Street

Airport Roadway Access

Project Sponsor: MDOT

Added M-6 interchange could help complete roadway network surrounding the Airport and improve traffic flow to and from the freight uses on the east side. But recent Cascade Township planning targets less economic growth in this area.

Next Steps: Design and Demand Studies

7. NEXT STEPS

The development of this Airport Access Study is the initial step toward achieving a set of projects and services that will enhance the resilience and reliability of connections to the Gerald R. Ford International Airport. In the future, the infrastructure owners (including the Airport, MDOT, Kent County, The Rapid, and the local cities/townships) will need to conduct more detailed design studies, environmental reviews, and potentially funding applications prior to construction occurring. The table below indicates a potential timeframe for implementation.

Other than the development of local infrastructure that supports pedestrian and bicycle enhancements, the projects recommended by this study are likely to require state and federal funding contributions in order to advance. In its role as the programming entity for regional transportation funds, GVMC can play a unique role in considering and potentially prioritizing these enhancements to regional airport access.

Project	Project Lead	Project Partner(s)	Short-Term (1-2 Years)	Mid-Term (3-5 Years)	Long-Term (5-10 Years)
Thornapple River Drive Secondary Freight Access	GRR	Cascade Charter Twp	<i>Finalize design and implement access</i>		
Patterson Avenue /44th Street Safety Enhancements	GRR	Kent County, Kentwood, Cascade Charter Twp	<i>Finalize design, determine funding</i>	<i>Construction</i>	
M-37/Patterson Avenue/60th Street Intersection Enhancements	MDOT	Kentwood, Cascade Charter Twp	<i>Finalize design, determine funding</i>	<i>Construction</i>	
Downtown Express Bus/Shuttle	The Rapid	GRR	<i>Study scenarios, include within regional master plan</i>	<i>Determine funding and launch service</i>	
Pedestrian/Bike Connectivity Enhancements	Multiple	Multiple	<i>Conduct design studies and secure funding</i>	<i>Initial construction of priority segments</i>	<i>Complete construction of primary connections</i>
I-96/36th Street Access Direct Access	GRR	MDOT, Kent County, Cascade Charter Twp	<i>Conduct additional design studies, integrate with Airport planning</i>	<i>Conduct environmental reviews, secure funding</i>	<i>Finalize design, initiate construction</i>

Potential Timeframe for Implementation