

MINUTES OF THE SIXTH MEETING

**ADVISORY COMMITTEE ON THE
LAKE PARKWAY EXTENSION STUDY**

DATE: November 14, 2011

TIME: 10:00 a.m.

PLACE: City of South Milwaukee Administration Building
Common Council Chambers
2424 15th Avenue
South Milwaukee, WI

Members Present

Patricia Jursik, Chair Supervisor, 8th District, Milwaukee County Board
Dick Bolender Mayor, City of Oak Creek
Tony Day Mayor, City of Cudahy
Mark Honadel State Representative, 21st Assembly District, State of Wisconsin
Al Richards Mayor, City of St. Francis
Andrea Weddle-Henning (representing Frank Busalacchi) Resident Contract Manager-Design,
Department of Transportation and Public Works, Milwaukee County
Thomas Zepecki Mayor, City of South Milwaukee

Members Absent

Paul Cesarz Supervisor, 9th District, Milwaukee County Board
Marina Dimitrijevic Supervisor, 4th District, Milwaukee County Board
Ghassan Korban Commissioner of Public Works, City of Milwaukee
Christopher J. Larson Senator, 7th Senate District, State of Wisconsin
Jon Richards State Representative, 19th Assembly District, State of Wisconsin
Christine Sinicki State Representative, 20th Assembly District, State of Wisconsin

Staff Present

Kenneth R. Yunker Executive Director, SEWRPC
Ryan W. Hoel Principal Engineer, SEWRPC
Eric Lynde Senior Planner/Engineer, SEWRPC

Guests Present

Julio Barron Colonel, Staff Judge Advocate, State of Wisconsin, Department of Military Affairs
Rhonda Black Real Estate Specialist, 128th Air Refueling Wing, Wisconsin Air National Guard
J. Heath Duncan Major, Civil Engineering Commander,
128th Air Refueling Wing, Wisconsin Air National Guard
Edward E. "Ted" Metzgar Colonel, Commander,
128th Air Refueling Wing, Wisconsin Air National Guard
Gerald Peterson City Administrator, City of Oak Creek
Tom Rave Executive Director, The Gateway to Milwaukee
Doug Seymour Director of Community Development, City of Oak Creek
Mike Simmons City Engineer, City of Oak Creek
David Tapia Project Manager, Bloom Companies, LLC
Kyle Vandercar City Engineer, City of South Milwaukee

ROLL CALL

Chair Jursik called the meeting to order at 10:10 a.m. She asked that a roll call be taken to record the names of all Committee members in attendance at the meeting, and she declared a quorum of the Committee present.

REVIEW AND APPROVAL OF MINUTES OF SEPTEMBER 26, 2011, MEETING

A motion to approve the minutes of the September 26, 2011, meeting as presented was made by Mayor Zepecki, seconded by Mayor Bolender, and passed on a vote of 6-0, with Ms. Weddle-Henning abstaining from the vote.

CONSIDERATION OF POTENTIAL LAKE PARKWAY EXTENSION

Chair Jursik stated that the Committee would consider at this meeting preliminary recommendations of the Lake Parkway extension to be presented to the public for comment. She suggested that to do so the Committee should consider approval of the potential Lake Parkway extension design, and as well consider the potential benefits, impacts, and costs of the Lake Parkway extension. She asked Mr. Yunker to summarize the potential Lake Parkway extension design (see Attachment 1 to these minutes for a copy of the handout provided to Advisory Committee members). He summarized each potential design element of the extension, including the alignment, cross-section, and roadway crossing treatments, noting that the Committee had approved recommended crossing treatments at each roadway crossing along the extension at previous meetings. The following discussion by the Committee took place during and following the summary provided by Mr. Yunker:

1. Ms. Weddle-Henning asked whether bicycle and pedestrian accommodations for the Lake Parkway extension had been considered, in particular the requirements in Chapter Trans 75 of the Wisconsin Administrative Code. Mr. Yunker responded that the cross-section had been developed with consideration given to Federal and State laws—including Trans 75—that require that bicycle and pedestrian accommodations be considered on any new or reconstructed roadway utilizing State or Federal funding. He noted that the auxiliary lanes shown on the cross-section may provide adequate bicycle accommodations, and the multi-use path could potentially accommodate bicycles and pedestrians. Mayor Bolender expressed concern in regards to accommodating bicycles on the extension, indicating that bicycles could be accommodated on alternative routes parallel to the extension, rather than accommodating bicycles within the extension right-of-way. Ms. Jursik noted that bicycle and pedestrian accommodations had been discussed by the Committee at a previous meeting, and suggested that the Committee move forward with the bicycle and pedestrian accommodations included in the cross-section, recognizing that the Wisconsin Department of Transportation (WisDOT) would make the final determination of the bicycle and pedestrian accommodations to be included on the extension during the necessary preliminary engineering and environmental impact study.
2. In response to a question by Mr. Rave, Mr. Yunker indicated that the proposed cross-section for the Lake Parkway extension was designed with a speed limit of 40 miles per hour, similar to that of the existing Lake Parkway. He added that WisDOT could consider during preliminary engineering and environmental impact study whether a higher speed limit would be appropriate.

Chair Jursik asked Mr. Yunker to summarize the potential benefits, impacts, and costs of the Lake Parkway extension (see Attachment 2 to these minutes for a copy of the handout provided to Advisory Committee members). The following discussion by the Committee took place during and following the summary provided by Mr. Yunker:

1. Mr. Yunker noted that the estimated capital costs for the Lake Parkway extension were in current year 2010 dollars, and that the actual capital costs in year-of-expenditure dollars would likely be higher due to inflation.
2. Mr. Yunker indicated that the Commission staff had conducted an analysis of the potential impacts of locating the Lake Parkway extension outside the We Energies right-of-way between a point 1,000 feet north of College Avenue and Rawson Avenue, as discussed at a previous Committee meeting. He suggested that the Commission staff insert the results of the analysis into the potential benefits, impacts, and costs of the Lake Parkway extension in the appropriate place.

[Secretary's Note: Attachment 3 to these minutes contains text and a map added under the discussion of potential right-of-way impacts associated with the American Transmission Company, located on page 12 of the handout for the potential benefits, impacts, and costs of the Lake Parkway extension.]

3. Col. Metzgar stated that the 128th Air Refueling Wing was willing to participate in a land exchange with General Mitchell International Airport (GMIA) that would allow the relocation of the secured access to their facilities from Grange Avenue to locations along College Avenue and Layton Avenue and allow the closing of the secured access at Grange Avenue. He indicated that the 128th Air Refueling Wing required two secured gates to their facilities, and that the relocation would benefit GMIA because the 128th Air Refueling Wing would be willing to provide security along the entire eastern edge of GMIA. Mr. Yunker noted that closing the secured access at Grange Avenue would allow the Lake Parkway extension to be constructed at-grade with cul-de-sacs provided on Grange Avenue on each side of the extension, rather than as an overpass with no access. The Committee agreed that the potential Lake Parkway extension design should be revised to reflect the potential that the Lake Parkway extension could be constructed at-grade with cul-de-sacs provided on Grange Avenue on each side of the extension, should the 128th Air Refueling Wing be able to relocate their secured access. Chair Jursik added that the relocation appeared to benefit all parties involved—Milwaukee County, GMIA, and the 128th Air Refueling Wing—and that it may be possible to begin the process for the land exchange prior to completion of the Lake Parkway extension. Mr. Yunker indicated that the Commission staff could revise the handouts on the potential Lake Parkway extension design and the potential benefits, impacts, and costs of the Lake Parkway extension to reflect the potential that the Lake Parkway extension could be constructed at-grade with cul-de-sacs provided on Grange Avenue on each side of the extension. He proposed that the handouts be revised with the following text incorporated into the appropriate places in each handout: “WisDOT should work with the 128th Air Refueling Wing and GMIA during preliminary engineering and environmental impact study to accomplish the appropriate exchange of land to allow the secured access to the 128th Air Refueling Wing facilities to be relocated to College Avenue and Layton Avenue and the secured access at Grange Avenue to be closed. This would allow the Lake Parkway extension to be constructed at-grade with cul-de-sacs provided on Grange Avenue on each side of the extension.”

A motion to approve incorporating the proposed text as revisions to the potential Lake Parkway extension design and the potential benefits, impacts, and costs of the Lake Parkway extension, was made by Mayor Day, seconded by Mayor Zepecki, and passed on a vote of 6-0, with Ms. Weddle-Henning abstaining from the vote.

[Secretary's Note: The following revisions were made to the potential Lake Parkway extension design:

- References to the preferred roadway crossing treatment of the Lake Parkway extension at Grange Avenue—found on pages 1, 3, and 6—were revised from “overpass with no

access (Lake Parkway over)” to “no access”, with the approved text added as a footnote to each reference.

- The following sub-bullet was added following the last bullet on page 5: “At Grange Avenue, WisDOT should work with the 128th Air Refueling Wing and GMIA during preliminary engineering and environmental impact study to accomplish the appropriate exchange of land to allow the secured access to the 128th Air Refueling Wing facilities to be relocated to College Avenue and Layton Avenue and the secured access at Grange Avenue to be closed. This would allow the Lake Parkway extension to be constructed at-grade with cul-de-sacs provided on Grange Avenue on each side of the extension.”

The following revision was made to the potential benefits, impacts, and costs of the Lake Parkway extension:

- The second bullet from the bottom located on page 15 was replaced with the approved text.]

There being no further comments or discussion regarding the potential Lake Parkway extension design, Mayor Zepecki made a motion to approve the potential Lake Parkway extension design, as revised. Mayor Bolender seconded the motion, and the motion passed on a vote of 6-0, with Ms. Weddle-Henning abstaining from the vote (see Attachment 4 to these minutes for a copy of the potential Lake Parkway extension design, as revised).

There being no further comments or discussion regarding the potential benefits, impacts, and costs of a Lake Parkway extension, Mayor Zepecki made a motion to accept the estimate of the potential benefits, impacts, and costs of a Lake Parkway extension, as revised. Mayor Bolender seconded the motion, and the motion passed on a vote of 6-0, with Ms. Weddle-Henning abstaining from the vote (see Attachment 5 to these minutes for a copy of the potential benefits, impacts, and costs of a Lake Parkway extension, as revised).

CONSIDERATION OF DATES AND LOCATIONS FOR PUBLIC MEETINGS

Chair Jursik stated that the Committee should consider dates and locations of public meetings to be held to obtain public comment on the preliminary recommended Lake Parkway extension. In response to a question from Mayor Zepecki regarding how many public meetings should be held, Rep. Honadel suggested that one public meeting may be appropriate to obtain public comment. Mayor Zepecki suggested that the public meeting could be held at the Performing Arts Center in the City of South Milwaukee.

A motion that the Commission staff schedule one public meeting to obtain public comment on the preliminary recommended Lake Parkway extension in February or March of 2012 at the Performing Arts Center in the City of South Milwaukee, was made by Mayor Richards, seconded by Mayor Zepecki, and passed on a vote of 6-0, with Ms. Weddle-Henning abstaining from the vote.

DETERMINATION OF NEXT MEETING DATE AND LOCATION

Following discussion by the Committee, Chair Jursik suggested, and the Committee agreed, that the Committee postpone scheduling the next Committee meeting until after the public meeting on the preliminary recommended Lake Parkway extension has been held.

ADJOURNMENT

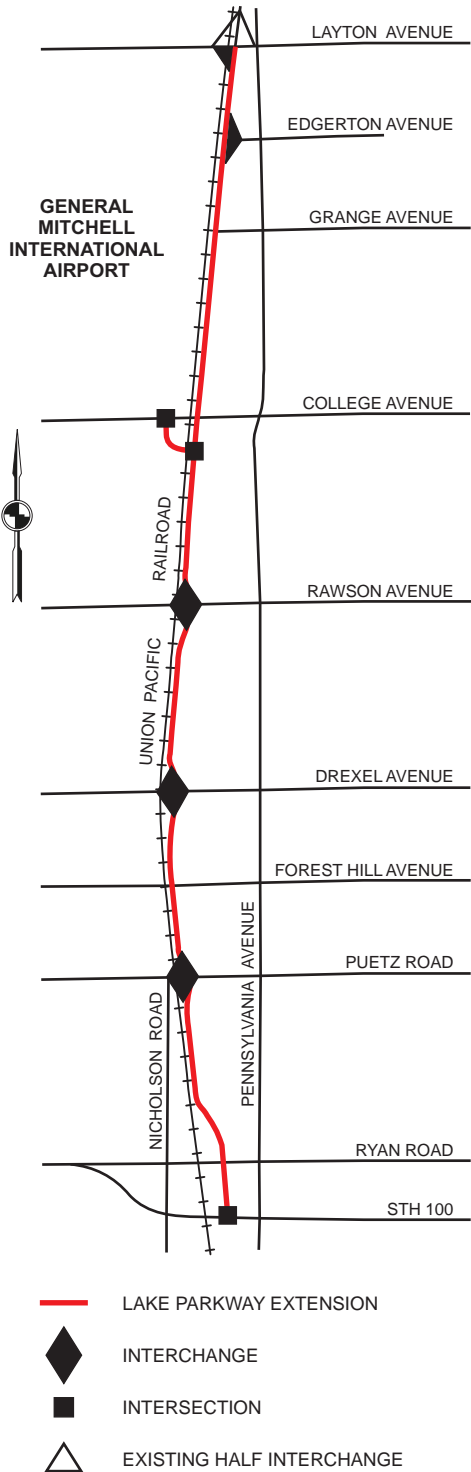
There being no further business to come before the Committee, the meeting was adjourned at 11:15 a.m.

Respectfully submitted,

Kenneth R. Yunker
Recording Secretary

Attachment 1

POTENTIAL LAKE PARKWAY EXTENSION DESIGN



Summary of Elements of Lake Parkway Extension Design

1. Alignment

- Lake Parkway extension would be routed between Edgerton Avenue and STH 100 in Milwaukee County with the following general alignment:
 - Edgerton Avenue to Rawson Avenue: adjacent to the Union Pacific Railroad (UPR) rail line, partly within UPR rail right-of-way and We Energies right-of-way.
 - Rawson Avenue to Forest Hill Avenue: outside but adjacent to We Energies right-of-way.
 - Forest Hill Avenue to STH 100: continues adjacent to UPR rail right-of-way.

2. Cross-section

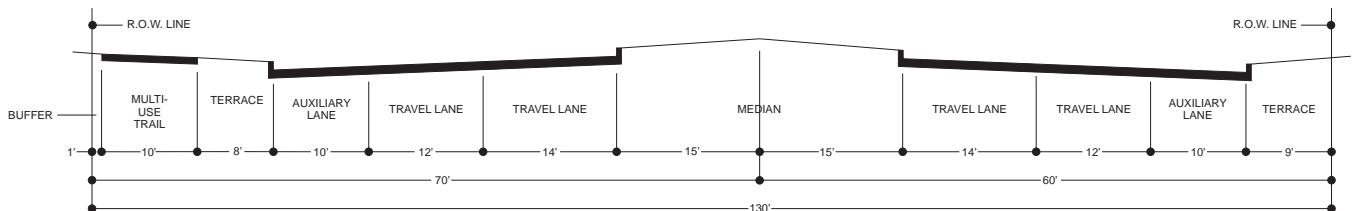
- Typical cross-section: urban divided roadway with four travel lanes, two auxiliary lanes, and a multi-use trail.
- Overall right-of-way width: 130 feet (may be possible to reduce width by about 25 feet between major arterials).
- Designed speed limit: 40 miles per hour—similar to existing Lake Parkway.

3. Roadway Crossing Treatments

- Access to Lake Parkway extension restricted to main arterial roadways.
- Preferred crossing treatments:
 - Layton Avenue: Add access via SB on-ramp to existing half interchange
 - Edgerton Avenue: Replace current connection with access via NB on-and off-ramps
 - Grange Avenue: Overpass with no access
 - College Avenue (CTH ZZ): Overpass with access via “jughandle” ramp
 - Rawson Avenue (CTH BB): Access via grade-separated interchange
 - Drexel Avenue: Access via grade-separated interchange
 - Forest Hill Avenue: Overpass with no access
 - Puetz Road: Access via grade-separated interchange
 - Ryan Road: Cul-de-sac on each side of Lake Parkway
 - STH 100: Access via at-grade intersection west of Pennsylvania Avenue

TYPICAL CROSS-SECTION FOR LAKE PARKWAY EXTENSION

DIVIDED FOUR-LANE URBAN ARTERIAL WITH AUXILIARY LANES AND MULTI-USE TRAIL



NOTE: BETWEEN INTERSECTIONS WITH MAJOR ARTERIALS, THERE MAY BE THE POTENTIAL TO REDUCE THE WIDTH OF THE MEDIAN AND RIGHT-OF-WAY BY ABOUT 25 FEET.

Attachment 1 (continued)

POTENTIAL LAKE PARKWAY EXTENSION DESIGN

1. Elements of Lake Parkway Extension Design

- **Alignment**

- Map A-1 shows the potential alignment of a Lake Parkway extension between Edgerton Avenue and STH 100 in Milwaukee County.
- Between Edgerton Avenue and Rawson Avenue (CTH BB), the alignment is shown located adjacent to the Union Pacific Railroad (UPR) rail line within a portion of the UPR rail right-of-way and within the existing We Energies right-of-way.
- Between Rawson Avenue and Forest Hill Avenue, the alignment is shown outside but adjacent to the We Energies right-of-way to avoid the need for relocation of existing utilities.
- South of Forest Hill Avenue, the alignment continues adjacent to the UPR rail right-of-way and intersects STH 100 at a point west of Pennsylvania Avenue.

- **Cross-section**

- Figure A-1 shows the potential cross-section for the Lake Parkway extension.
- The typical cross-section consists of an urban divided roadway with four travel lanes and two auxiliary lanes.
- The cross-section includes a multi-use trail to accommodate bicycles and pedestrians. The two auxiliary lanes may also provide adequate bicycle accommodations.
- The overall right-of-way width for the cross-section is 130 feet. However, between intersections with major arterials, there may be the potential to reduce the width of the median and right-of-way by about 25 feet.
- A speed limit of 40 miles per hour—similar to that of the existing Lake Parkway—was assumed for the cross-section.

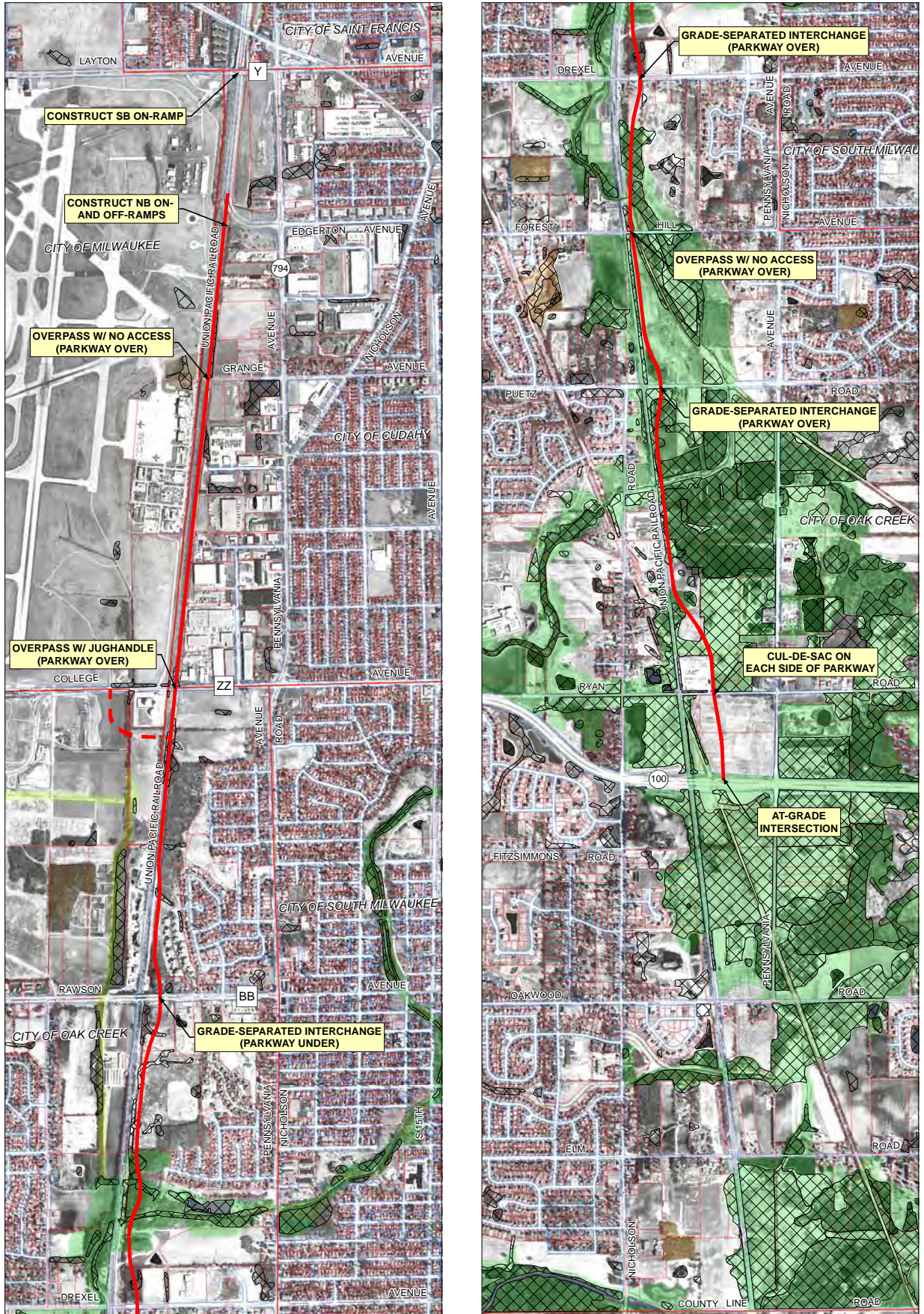
- **Roadway Crossing Treatments**

- The Advisory Committee considered alternative, and recommended preferred, crossing treatments for each roadway crossing of the Lake Parkway extension between Edgerton Avenue and STH 100.
- It was also recommended that access to the potential Lake Parkway extension would be restricted to main arterial roadways.

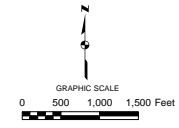
Attachment 1 (continued)

Map A-1

PREFERRED CENTERLINE ALIGNMENT AND ROADWAY CROSSING TREATMENTS FOR A POTENTIAL LAKE PARKWAY EXTENSION BETWEEN EDGERTON AVENUE AND STH 100 IN MILWAUKEE COUNTY



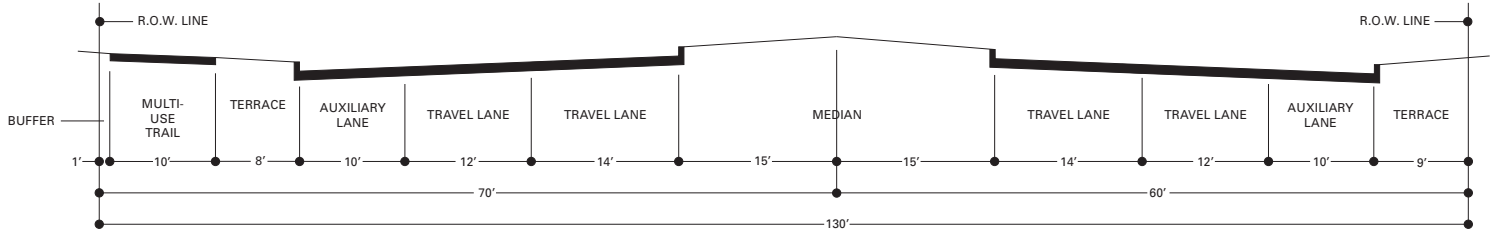
- CENTERLINE ALIGNMENT OF LAKE PARKWAY EXTENSION
- PRIMARY ENVIRONMENTAL CORRIDOR
- SURFACE WATER
- - JUGHANDLE RAMP AT COLLEGE AVENUE
- SECONDARY ENVIRONMENTAL CORRIDOR
- WETLANDS
- ISOLATED NATURAL RESOURCE AREA



Attachment 1 (continued)

Figure A-1
TYPICAL CROSS-SECTION FOR LAKE PARKWAY EXTENSION

DIVIDED FOUR-LANE URBAN ARTERIAL WITH AUXILIARY LANES AND MULTI-USE TRAIL



NOTE: BETWEEN INTERSECTIONS WITH MAJOR ARTERIALS, THERE MAY BE THE POTENTIAL TO REDUCE THE WIDTH OF THE MEDIAN AND RIGHT-OF-WAY BY ABOUT 25 FEET.

Attachment 1 (continued)

- o Table A-1 and Map A-1 provide the preferred crossing treatment for each roadway crossing along the potential Lake Parkway extension. Table A-1 also indicates whether access to the Lake Parkway extension would be provided at each roadway.
 - Layton Avenue and Edgerton Avenue – Access would be provided by constructing a southbound on-ramp at Layton Avenue and northbound on- and off-ramps at Edgerton Avenue (see Map A-2).
 - College Avenue – Access would be provided by constructing an overpass with jughandle ramp access (see Map A-3).
 - Rawson Avenue – Access would be provided by grade-separated interchange (see Map A-4).
 - Drexel Avenue – Access would be provided by grade-separated interchange (see Map A-5).
 - Puetz Road – Access would be provided by grade-separated interchange (see Map A-6).
 - STH 100 – Access would be provided by an at-grade intersection west of Pennsylvania Avenue (see Map A-7).
 - No access to the Lake Parkway extension would be provided at Grange Avenue, Forest Hill Avenue, and Ryan Road.

* * *

#159710 v1 - Lake Pkwy - Design

KRY/EDL/RWH/rwh/dad

Attachment 1 (continued)

Table A-1

PREFERRED ROADWAY CROSSING TREATMENTS AND ACCESS AT EACH ROADWAY CROSSING ALONG THE POTENTIAL LAKE PARKWAY EXTENSION BETWEEN EDGERTON AVENUE AND STH 100 IN MILWAUKEE COUNTY

Roadway Crossing	Potential Crossing Treatment	Access Provided
Layton Avenue	Add southbound on-ramp to existing half interchange	Yes
Edgerton Avenue	Replace current connection with northbound on-and off-ramps	Yes
Grange Avenue	Overpass with no access (Lake Parkway over)	No
College Avenue (CTH ZZ)	Overpass with "jughandle" ramp access between Lake Parkway and College Avenue (Lake Parkway over)	Yes
Rawson Avenue (CTH BB)	Grade-separated interchange (Lake Parkway under)	Yes
Drexel Avenue	Grade-separated interchange (Lake Parkway over)	Yes
Forest Hill Avenue	Overpass with no access (Lake Parkway over)	No
Puetz Road	Grade-separated interchange (Lake Parkway over)	Yes
Ryan Road	Cul-de-sac on each side of Lake Parkway	No
STH 100	At-grade intersection west of Pennsylvania Avenue	Yes

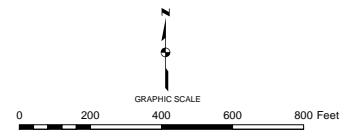
Attachment 1 (continued)

Map A-2

PREFERRED CROSSING TREATMENT FOR LAKE PARKWAY EXTENSION
AT LAYTON AVENUE (CTH Y) AND EDGERTON AVENUE



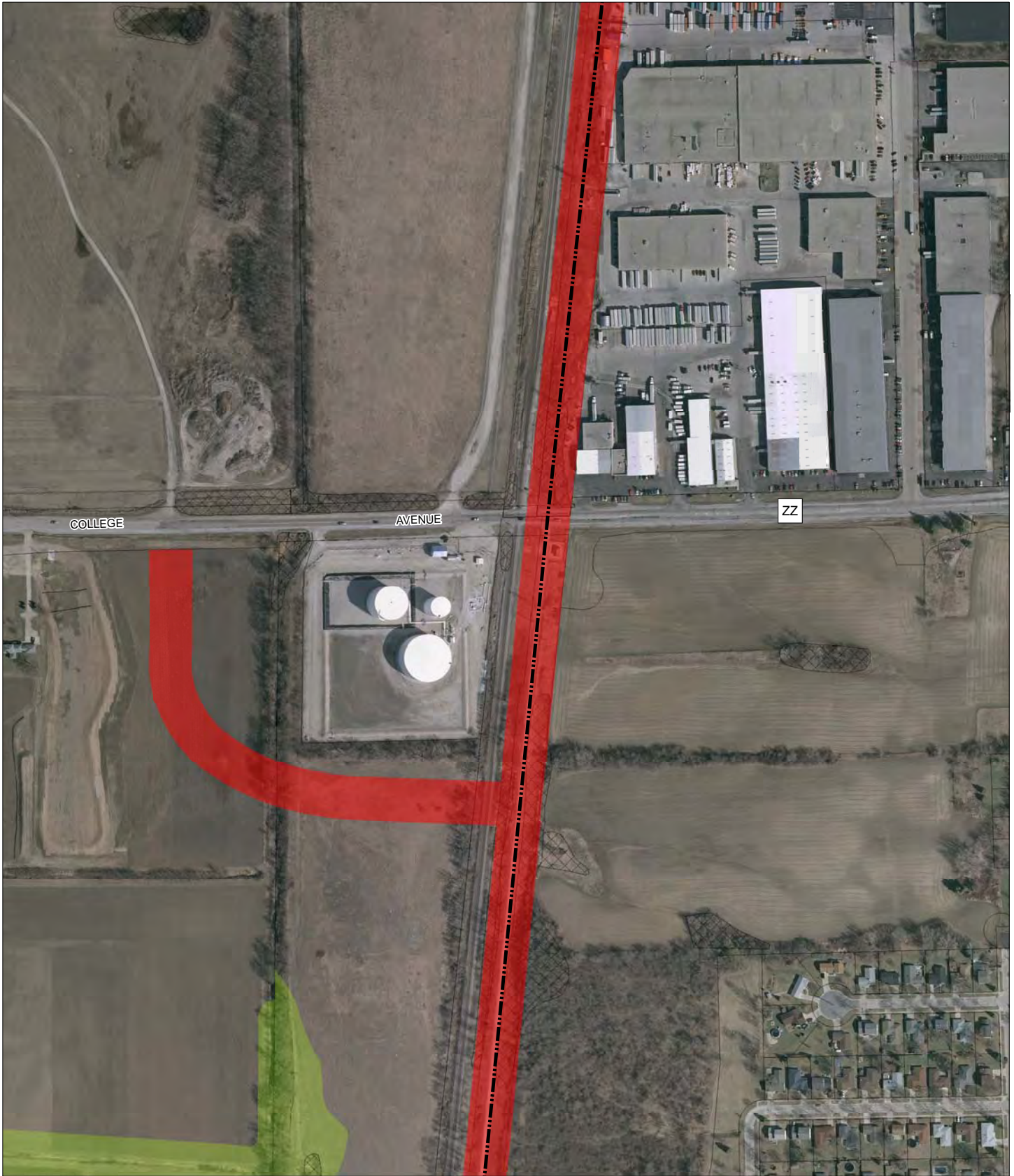
- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION
- POTENTIAL NEW SOUTHBOUND ON-RAMP AT LAYTON AVENUE AND NEW NORTHBOUND ON- AND OFF-RAMPS AT EDGERTON AVENUE



Attachment 1 (continued)

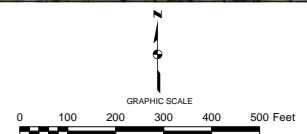
Map A-3

PREFERRED CROSSING TREATMENT FOR
LAKE PARKWAY EXTENSION AT COLLEGE AVENUE



- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION WITH JUGHANDLE RAMP ACCESS AT COLLEGE AVENUE

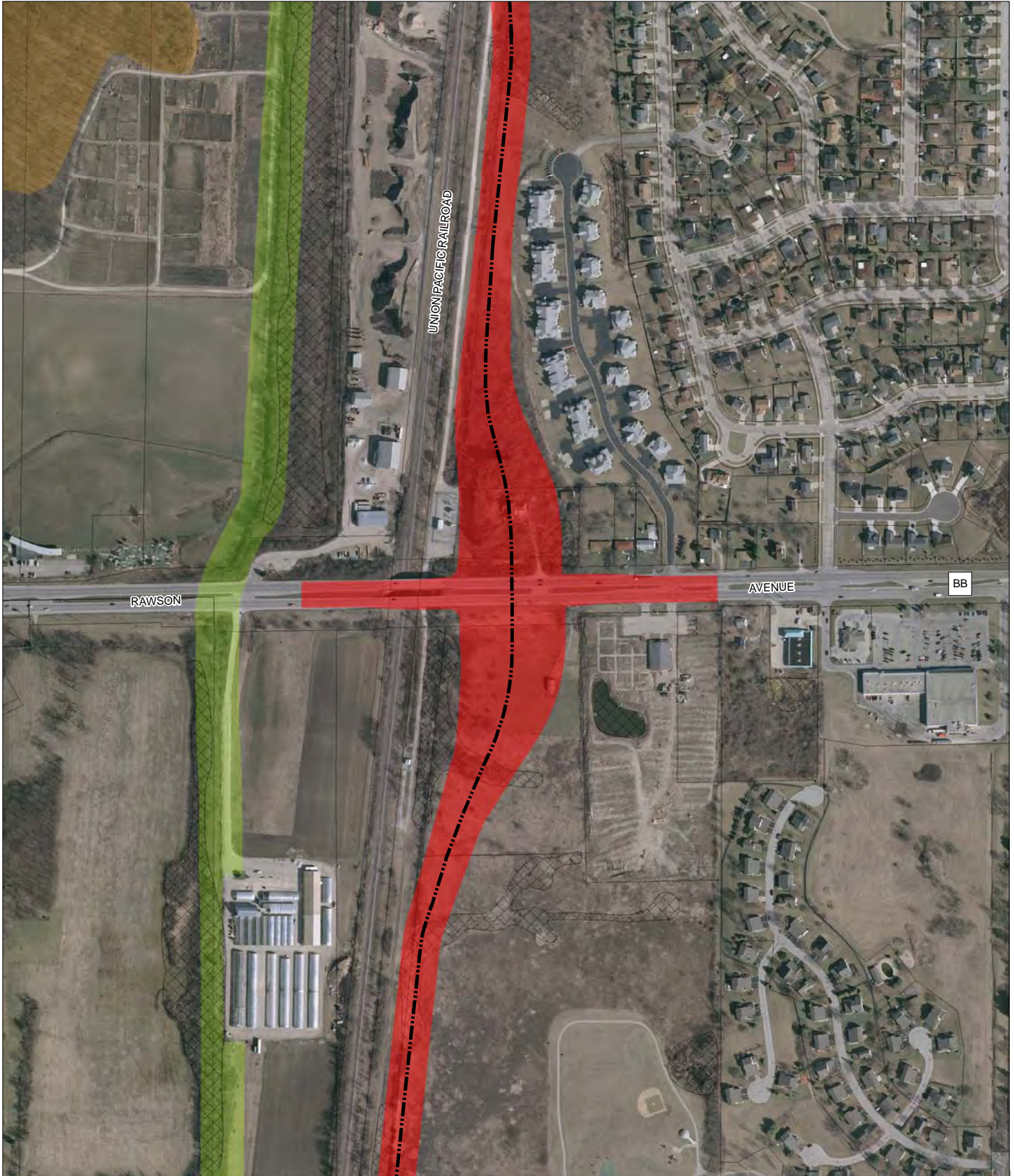
- SECONDARY ENVIRONMENTAL CORRIDOR
- ⊠ WETLANDS



Attachment 1 (continued)

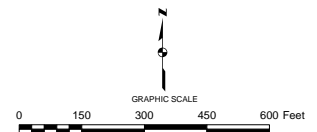
Map A-4

PREFERRED CROSSING TREATMENT FOR
LAKE PARKWAY EXTENSION AT RAWSON AVENUE



- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION

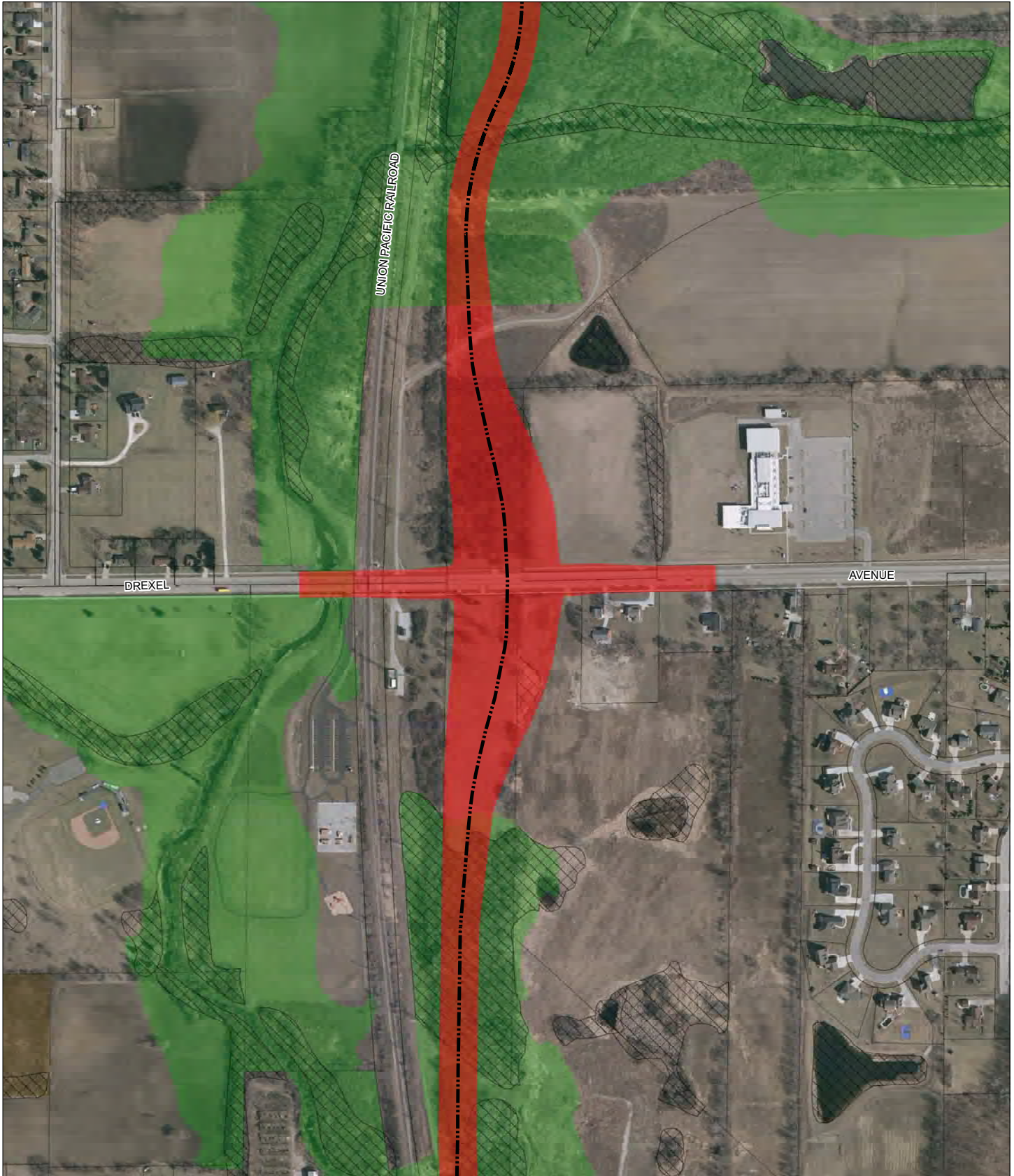
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA
- ⊠ WETLANDS



Attachment 1 (continued)

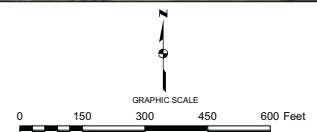
Map A-5

PREFERRED CROSSING TREATMENT FOR
LAKE PARKWAY EXTENSION AT DREXEL AVENUE



- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION

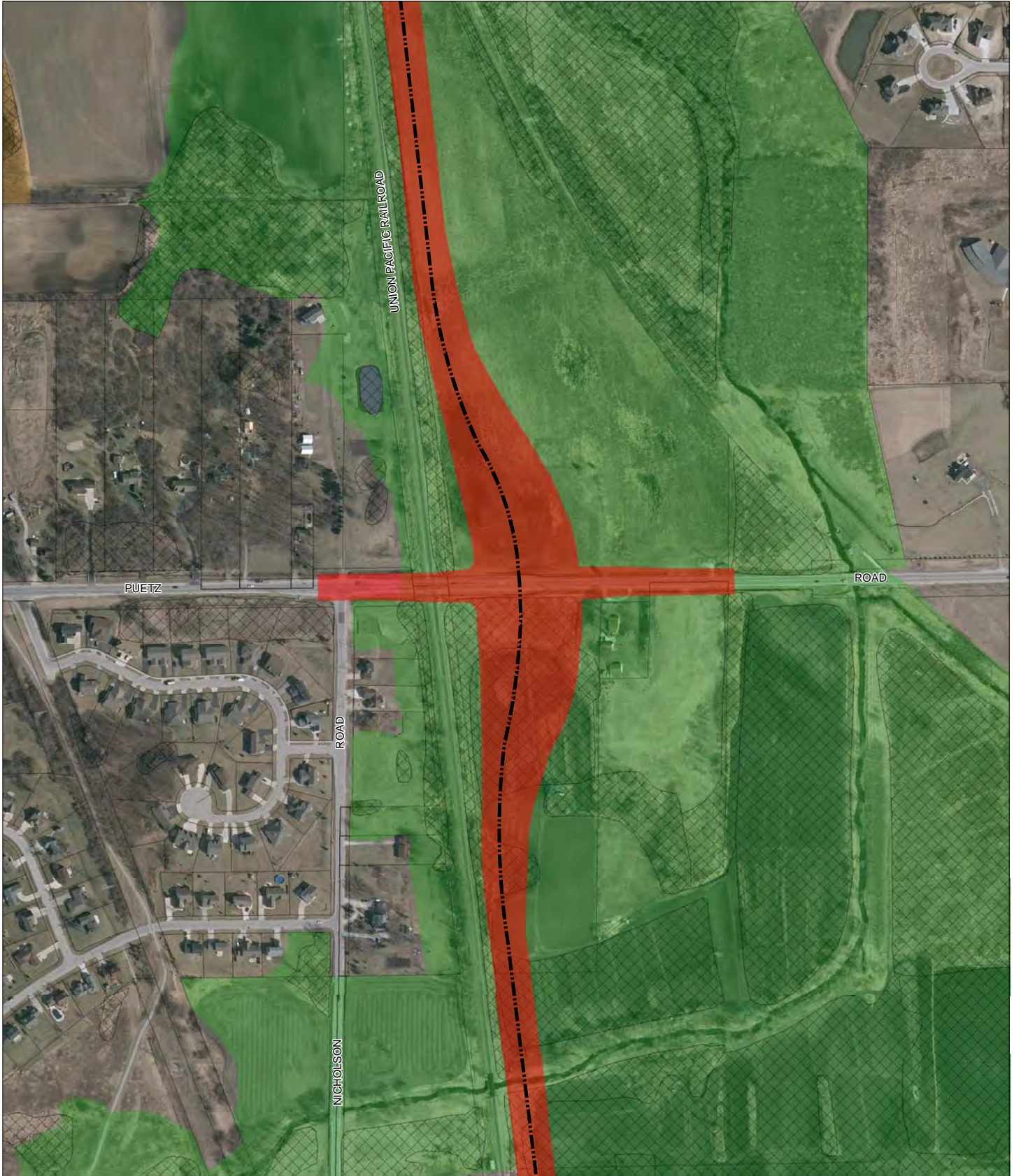
- PRIMARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA
- WETLANDS



Attachment 1 (continued)

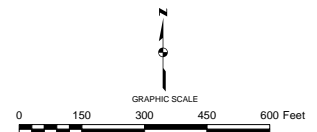
Map A-6

PREFERRED CROSSING TREATMENT FOR
LAKE PARKWAY EXTENSION AT PUETZ ROAD



- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION

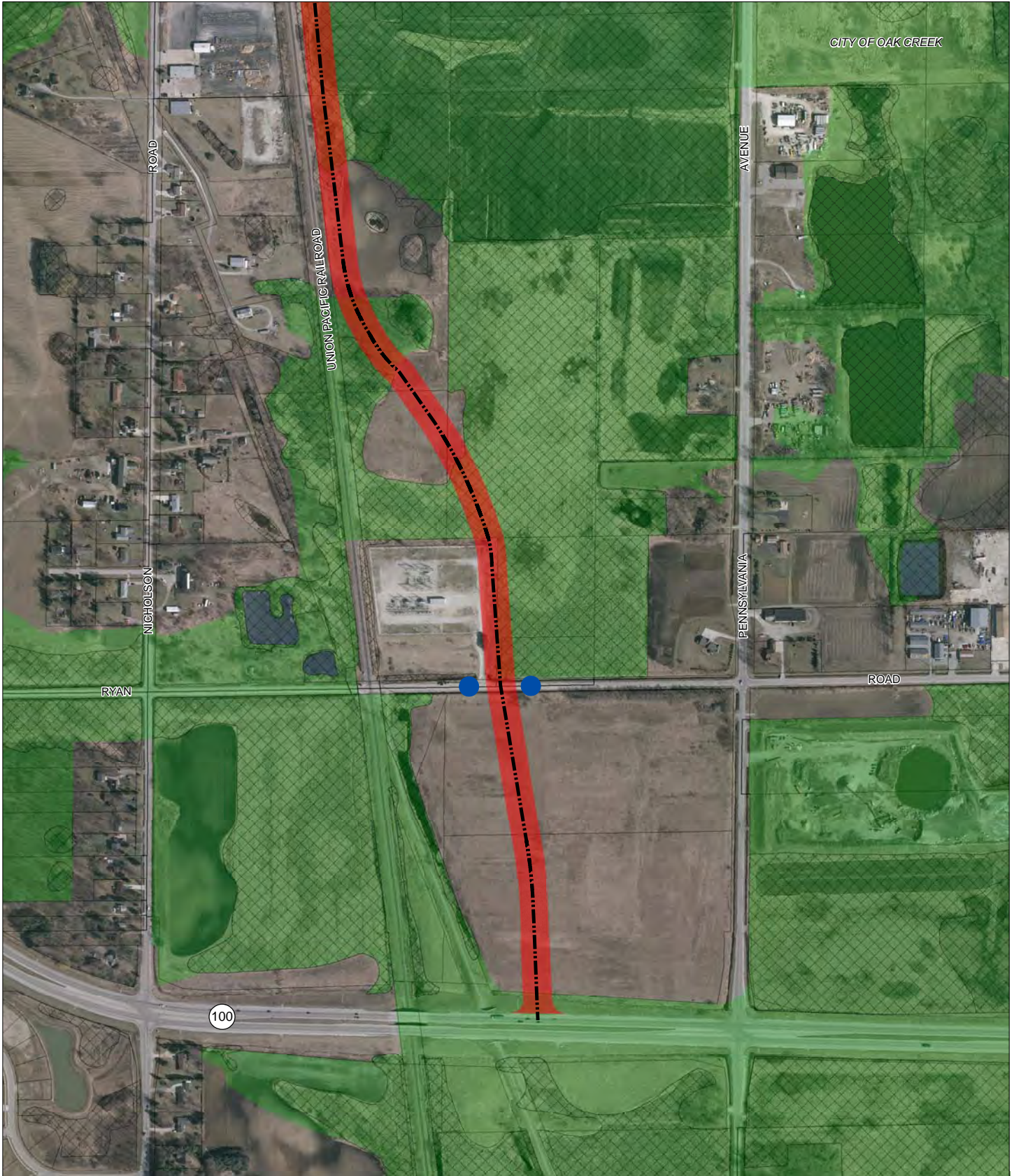
- PRIMARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA
- ▨ WETLANDS



Attachment 1 (continued)

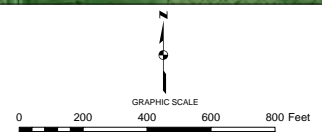
Map A-7

PREFERRED CONNECTION OF
LAKE PARKWAY EXTENSION AT STH 100



- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION
- POTENTIAL CUL-DE-SAC OF RYAN ROAD

- PRIMARY ENVIRONMENTAL CORRIDOR
- SURFACE WATER
- ▨ WETLANDS



Attachment 2

SUMMARY OF POTENTIAL BENEFITS, IMPACTS, AND COSTS OF LAKE PARKWAY EXTENSION

1. Anticipated Benefits

- **Improvement in Traffic Congestion (Comparing Year 2035 Forecast Traffic Volumes)**
 - The Lake Parkway extension is forecast to carry 24,000 to 29,000 vehicles per average weekday between Edgerton Avenue and Puetz Road, and about 9,000 vehicles per average weekday between Puetz Road and STH 100.
 - In general, traffic volumes on north-south arterial roadways adjacent to the Lake Parkway extension—including Pennsylvania Avenue, Howell Avenue, 13th Street, Puetz Road, and STH 32 (Chicago Avenue)—would be significantly reduced with the Lake Parkway extension. Projected future congestion would be expected to be eliminated on Pennsylvania Avenue between College Avenue and Edgerton Avenue, and on Howell Avenue between Puetz Road and Drexel Avenue.
 - Exception: traffic volumes would increase, resulting in modest congestion, on the segment of Pennsylvania Avenue between Edgerton Avenue and Layton Avenue, due to northbound traffic exiting the Lake Parkway extension at Edgerton Avenue to get to Layton Avenue.
 - Traffic volumes on some segments of the east-west arterial roadways that would be used to access the Lake Parkway extension—including Rawson Avenue, Drexel Avenue, Puetz Road, and STH 100—would be significantly increased with the Lake Parkway extension. These increases would not result in congestion, with the exception of modest congestion on STH 100 between Pennsylvania Avenue and 15th Avenue.
 - With the Lake Parkway extension, the planned widening from two to four travel lanes on Pennsylvania Avenue between Rawson Avenue and Milwaukee Avenue and on 13th Street between Rawson Avenue and Puetz Road may no longer be needed.
- **Improvement in Accessibility**
 - Estimated travel time between STH 100 and Layton Avenue would be reduced by 5 minutes (10 minutes on Lake Parkway extension; 15 minutes on Pennsylvania Avenue without Lake Parkway extension).
- **Improvement in Safety**
 - Based on an analysis of estimated crash rates, it would be expected that there would be an overall reduction of vehicular crashes with the implementation of the Lake Parkway extension.
 - Between intersections, the crash rate on the Lake Parkway extension would be about half that of Pennsylvania Avenue—the primary arterial which would carry traffic in absence of a Lake Parkway extension.
 - For at-grade intersections of the Lake Parkway extension—College Avenue jughandle ramp and STH 100—crash rates on the Lake Parkway extension may be slightly higher than those of at-grade intersections along Pennsylvania Avenue.
 - For the crossings with grade-separated interchanges—Layton, Edgerton, Rawson, and Drexel Avenues, and Puetz Road—crash rates where the crossing roadways intersect ramps of the Lake Parkway extension may be slightly higher than intersection crash rates of at-grade intersections along Pennsylvania Avenue. However, the total number of intersection crashes would be less for a grade-separated interchange than an at-grade intersection as through traffic on the Lake Parkway extension would freely flow through an interchange and avoid conflicts with the traffic on the crossing roadways.

2. Potential Impacts

- **Right-of-way Impacts**

Evaluation Measure	Lake Parkway Extension
Residential structure acquisition/relocation	1
Right-of-way acquisition (acres)	118
Primary environmental corridors impacted (acres)	41
Wetlands impacted (acres)	27
Park/recreational land impacted—Oak Creek Parkway	20

- No commercial, industrial, or institutional structures would need to be acquired or relocated.
- 56 residential units and 12 commercial/industrial structures would be disrupted based on being located within 200 feet of the Lake Parkway extension.
- No secondary environmental corridors, isolated natural resource areas, or prime agricultural land would be impacted.
- We Energies electric and gas facilities and American Transmission Company electric transmission lines within the We Energies right-of-way between Edgerton Avenue and Rawson Avenue would need to be relocated.
- **Other Potential Issues**
 - The Lake Parkway extension would need to be constructed to follow Federal Aviation Administration (FAA) and Milwaukee County height restrictions for new structures along and near General Mitchell International Airport.
 - Should the Lake Parkway extension proceed to implementation, potential security concerns relating to existing and planned 128th Air Refueling Wing facilities would need to be addressed during preliminary engineering and environmental impact study.

3. Estimated Cost

Capital Costs (Year 2010 Dollars)

Construction	\$192.8 million
Right-of-way	5.7 million
Utility Relocation	8.7 million
Total	<u>\$207.2 million</u>

POTENTIAL BENEFITS, IMPACTS, AND COSTS OF A LAKE PARKWAY EXTENSION

1. Benefits

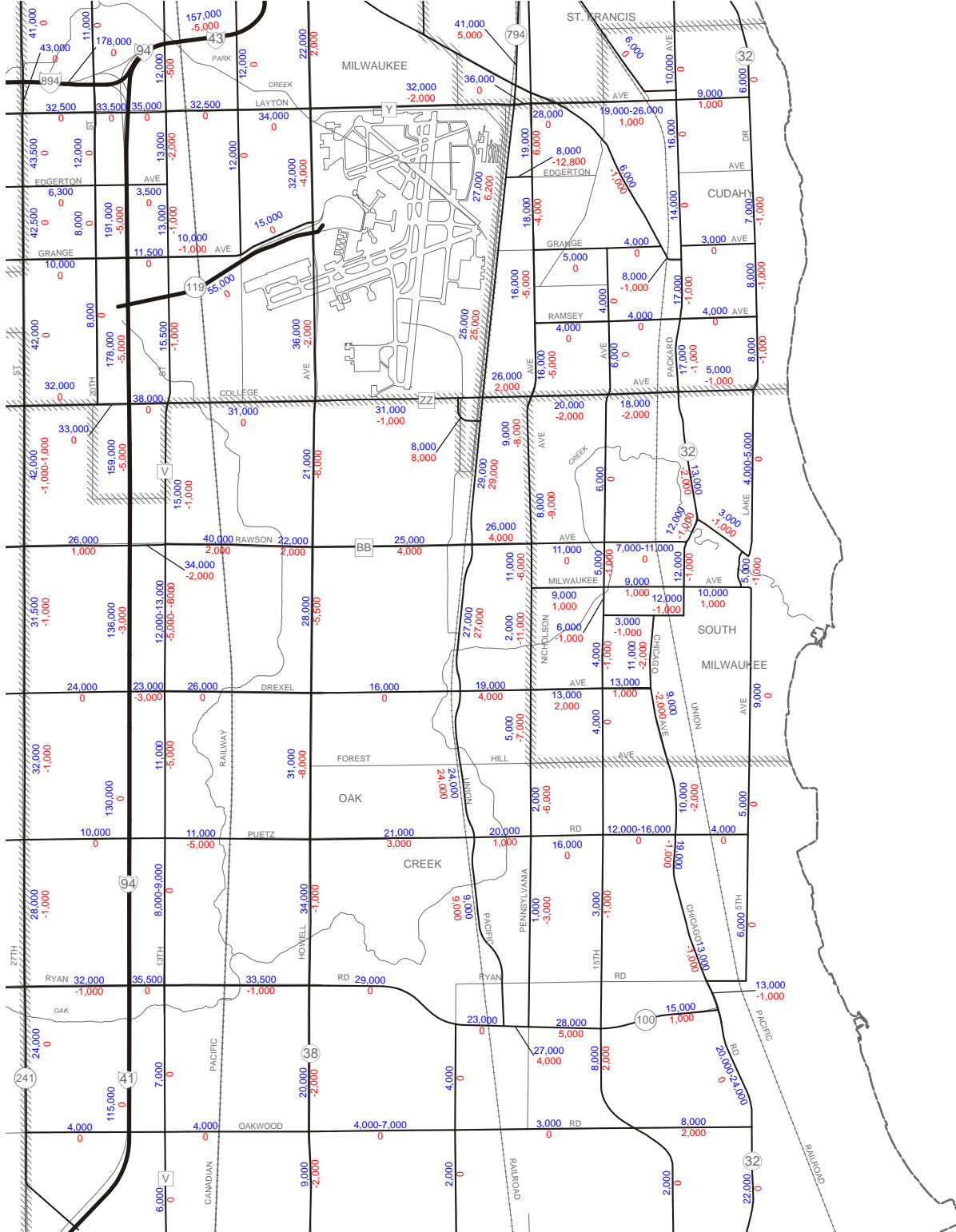
- **Traffic**

- Map B-1 shows the year 2035 forecast traffic volumes on the potential Lake Parkway extension, and on the adjacent planned arterial street and highway system with implementation of the extension.
- Forecast year 2035 average weekday traffic volumes for the Lake Parkway extension:
 - Between STH 100 and Puetz Road – 9,000 vehicles per average weekday.
 - Between Puetz Road and Layton Avenue – 24,000 to 29,000 vehicles per average weekday.
 - North of Layton Avenue – The forecast year 2035 average weekday traffic volumes on the existing Lake Parkway would increase by about 5,000 vehicles per average weekday with implementation of the extension.
- The segments of adjacent arterial streets and highways with estimated significant reductions in forecast year 2035 average weekday traffic volumes as a result of the implementation of the Lake Parkway extension are provided in Table B-1. In general, traffic volumes on segments of north-south arterial roadways adjacent to the Lake Parkway extension—Pennsylvania Avenue, Howell Avenue, 13th Street, Puetz Road, and STH 32 (Chicago Avenue)—are estimated to be significantly reduced.
- The segments of adjacent arterial streets and highways with estimated significant increases in forecast year 2035 average weekday traffic volumes as a result of the implementation of the Lake Parkway extension are also provided in Table B-1. Traffic volumes on segments of east-west roadways that would be used to access the Lake Parkway extension—Rawson Avenue, Drexel Avenue, Puetz Road, and STH 100—are estimated to increase. In addition, traffic volumes on Pennsylvania Avenue between Edgerton Avenue and Layton Avenue are estimated to significantly increase mainly due to northbound traffic exiting the Lake Parkway at Edgerton Avenue and then travelling along Pennsylvania Avenue to Layton Avenue.

Attachment 2 (continued)

Map B-1

YEAR 2035 FORECAST AVERAGE WEEKDAY TRAFFIC VOLUMES ON THE PLANNED ARTERIAL STREET AND HIGHWAY SYSTEM IN SOUTHEAST MILWAUKEE COUNTY AREA WITH LAKE PARKWAY EXTENSION



YEAR 2035 FORECAST AVERAGE WEEKDAY TRAFFIC VOLUMES

20,000 WITH LAKE PARKWAY EXTENSION

-2,000 CHANGE RESULTING FROM LAKE PARKWAY EXTENSION

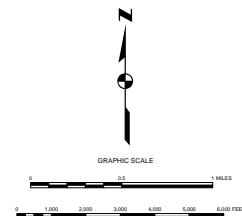
ARTERIAL STREET OR HIGHWAY

— SURFACE ARTERIAL

— FREEWAY

Source: SEWRPC

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I:\Tran\WORK\Lake Parkway Extension\Mtg 6 - 111411\Map 5 - Traffic Volumes.mxd



Attachment 2 (continued)

Table B-1

SEGMENTS OF ARTERIAL STREET AND HIGHWAY WITH ESTIMATED SIGNIFICANT CHANGES IN FORECAST YEAR 2035 TRAFFIC VOLUMES IN SOUTHEAST MILWAUKEE COUNTY RESULTING FROM IMPLEMENTATION OF A LAKE PARKWAY EXTENSION BETWEEN EDGERTON AVENUE AND STH 100

Segments with Significant Reductions in Forecast Year 2035 Traffic Volumes

Roadway	Limits	Year 2035 Forecast Traffic Volumes (Vehicles Per Average Weekday)		Estimated Reduction in Traffic Volumes Resulting from Potential Lake Parkway Extension	
		Without Lake Parkway Extension	With Lake Parkway Extension	Vehicles Per Average Weekday	Percent Reduction
Pennsylvania Avenue	Edgerton Avenue to College Avenue	21,000 to 22,000	16,000 to 18,000	4,000 to 5,000	18-24
	College Avenue to Milwaukee Avenue	17,000	8,000 to 11,000	6,000 to 9,000	32-52
	Milwaukee Avenue to Puetz Road	8,000 to 13,000	2,000 to 5,000	6,000 to 11,000	58-85
	Puetz Road to STH 100	4,000	1,000	3,000	75
Howell Avenue (STH 38)	College Avenue to Drexel Avenue	27,000 to 33,500	21,000 to 28,000	5,500 to 6,000	16-22
	Drexel Avenue to Puetz Road	39,000	31,000	8,000	21
13th Street	Rawson Avenue to Puetz Road	16,000 to 18,000	11,000 to 13,000	5,000 to 6,000	28-33
Puetz Road	13th Street to Howell Avenue	16,000	11,000	5,000	31
Chicago Avenue (STH 32)	College Avenue to Marquette Avenue	11,000 to 13,000	9,000 to 11,000	2,000	15-18

Segments with Significant Increases in Forecast Year 2035 Traffic Volumes

Roadway	Limits	Year 2035 Forecast Traffic Volumes (Vehicles Per Average Weekday)		Estimated Increase in Traffic Volumes Resulting from Potential Lake Parkway Extension	
		Without Lake Parkway Extension	With Lake Parkway Extension	Vehicles Per Average Weekday	Percent Increase
Pennsylvania Avenue	Layton Avenue to Edgerton Avenue	13,000	19,000	6,000	46
Rawson Avenue	Howell Avenue to Pennsylvania Avenue	21,000 to 22,000	25,000 to 26,000	4,000	18-19
Drexel Avenue	Lake Parkway Extension to Pennsylvania Avenue	15,000	19,000	4,000	26
Puetz Road	Howell Avenue to Lake Parkway Extension	18,000	21,000	3,000	17
STH 100	Lake Parkway Extension to 15th Avenue	23,000	27,000 to 28,000	4,000 to 5,000	17-22

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Attachment 2 (continued)

- The estimated effect of the Lake Parkway extension on future congestion on adjacent arterial streets and highways is as follows:
 - The level of projected future congestion is expected to improve from moderate congestion to no congestion on Pennsylvania Avenue between College Avenue and Edgerton Avenue, and on Howell Avenue between Puetz Road and Drexel Avenue.
 - The level of projected future congestion is expected to increase from no congestion to moderate congestion on Pennsylvania Avenue between Layton Avenue and Edgerton Avenue, and on STH 100 between the Lake Parkway extension and 15th Avenue. However, the forecast traffic volumes on these facilities would only modestly exceed the traffic volume threshold of moderate congestion.
- The estimated effect of Lake Parkway extension traffic diversion on planned roadway widening.
 - Implementation of the Lake Parkway extension would avoid the need for the planned widening from two to four traffic lanes on Pennsylvania Avenue between Rawson Avenue and Milwaukee Avenue and on 13th Street between Rawson Avenue and Puetz Road, and the potential widening from two to four traffic lanes on Pennsylvania Avenue between Milwaukee Avenue and STH 100 and on 13th Street between Puetz Road and STH 100.
- Improvement in accessibility as a result of Lake Parkway extension:
 - The travel time between STH 100 and Layton Avenue would be 10 minutes with implementation of the Lake Parkway extension and 15 minutes without implementation of a Lake Parkway extension (a reduction of 5 minutes).
- **Safety**
 - Comparison of expected crash rates on a Lake Parkway extension to crash rates on arterials which would carry traffic in the absence of a Lake Parkway extension:
 - SEWRPC staff compared estimated crash rates for segments of a Lake Parkway extension and Pennsylvania Avenue—the primary arterial which would carry

Attachment 2 (continued)

traffic in the absence of a Lake Parkway extension—between Layton Avenue and STH 100.

- The crash rate on the Lake Parkway extension is expected to be about half the crash rate on Pennsylvania Avenue between Layton Avenue and STH 100 (88 crashes per 100 million vehicle-miles travelled estimated for the Lake Parkway extension compared to 166 crashes per 100 million vehicle-miles travelled on Pennsylvania Avenue).
- The intersection crash rates at the College Avenue jughandle ramp and STH 100 intersections with the Lake Parkway extension would be expected to be slightly higher than the crash rates of the at-grade intersections along Pennsylvania Avenue (71 crashes per 100 million approaching vehicles estimated for the Lake Parkway extension compared to 53 crashes per 100 million approaching vehicles on Pennsylvania Avenue).
- For the crossings with grade-separated interchanges, it is expected that the intersection crash rates where the crossing roadways intersect the ramps of the Lake Parkway extension would be higher than the intersection crash rates of the at-grade intersections along Pennsylvania Avenue (69 crashes per 100 million approaching vehicles estimated for the Lake Parkway extension compared to 53 crashes per 100 million approaching vehicles on Pennsylvania Avenue). However, it would be anticipated that the total number of intersection crashes would be less with the provision of a grade-separated interchange compared to an at-grade intersection as the through traffic on the Lake Parkway extension would freely flow through an interchange and not conflict with the traffic on the crossing roadways.
- Therefore, it would be expected that there would be a significant overall reduction in vehicle crashes, and improvement in traffic safety, with the implementation of the Lake Parkway extension.

Attachment 2 (continued)

2. Impacts

- **Right-of-Way Impacts**

- Table B-2 provides a summary of the estimated right-of-way impacts attendant to the potential Lake Parkway extension.

- **Property and Structure Acquisitions/Relocations**

- The Lake Parkway extension is estimated to require the acquisition of about 118 acres of right-of-way.
- The Lake Parkway extension is estimated to require the acquisition or relocation of 1 residential structure, and 0 commercial, industrial, or institutional structures.

- **Structure Disruptions**

- A “disruption” is defined as any residential unit, commercial or industrial structure, or institutional structure located within about 200 feet of the right-of-way required for the Lake Parkway extension.
- The Lake Parkway extension is estimated to disrupt 56 residential units, 12 commercial or industrial structures, and 0 institutional structures.

- **Primary Environmental Corridors, Secondary Environmental Corridors, and Isolated Natural Resource Areas**

- Primary environmental corridors, secondary environmental corridors, and isolated natural resource areas have been identified and delineated as areas within Southeastern Wisconsin in which the best remaining elements of the natural resource base occur.
- The Lake Parkway extension is estimated to impact 41 acres of primary environmental corridor, 0 acres of secondary environmental corridor, and 0 acres of isolated natural area.

- **Wetlands**

- The Lake Parkway extension is estimated to impact 27 acres of wetlands.
- However, based on an analysis by SEWRPC staff, there appear to be suitable wetland mitigation locations in the vicinity of the Lake Parkway extension.

Attachment 2 (continued)

Table B-2

**POTENTIAL IMPACTS OF LAKE PARKWAY EXTENSION
BETWEEN EDGERTON AVENUE AND STH 100**

Evaluation Measure	Recommended Lake Parkway Extension
Right-of-Way Impacts	
Acquisitions/Relocations	
• Residential Structures	1
• Commercial Structures	0
• Institutional Structures	0
• Acres	118
Primary Environmental Corridors (acres)	41
Secondary Environmental Corridors (acres)	0
Isolated Natural Resource Areas (acres)	0
Wetlands (acres)	27
Prime Agricultural Land (acres)	0
Park/Recreational Land—Oak Creek Parkway (acres)	20
Disruptions ^a	
Residential Units	56
Commercial/Industrial Structures	12
Institutional Structures	0

^a A “disruption” is defined as any residential unit, or commercial or institutional structure located within about 200 feet of the right-of-way required for the Lake Parkway extension.

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Attachment 2 (continued)

○ **Floodplain**

- The Lake Parkway extension would cross the floodway of the Oak Creek at three locations and an unnamed tributary located near Grange Avenue at one location, and the jughandle ramp, which would provide access to the Lake Parkway extension at College Avenue, would potentially cross the floodway of the Mitchell Field Drainage Ditch at one location.
 - The floodway is the channel of a waterway, and those portions of the floodplain adjoining the channel required to carry the discharge during a 100-year flood event.
 - To avoid impacting the floodway, it is anticipated that the Lake Parkway extension and jughandle ramp would be built on structures over the floodway areas.
- The Lake Parkway extension is estimated to impact about 34.2 acres of floodfringe area.
 - The floodfringe is the area outside of the floodway that is estimated to be covered with flood water during a 100-year flood event.
 - Per Wisconsin Administrative Code:
 - Adequate floodproofing measures would be required for the Lake Parkway extension within the floodfringe areas.
 - The Lake Parkway extension would need to be designed to be compatible with the local floodplain development plans.

○ **Parkland and Other Recreational Areas**

- The Lake Parkway extension is estimated to impact about 19.5 acres of the Oak Creek Parkway.
- In addition, the Lake Parkway extension is estimated to impact 1.3 acres of an existing conservation easement between the City of Oak Creek and the Milwaukee Metropolitan Sewerage District (MMSD) on a parcel owned by the City just north of Ryan Road between Pennsylvania Avenue and the UPR right-of-way.

Attachment 2 (continued)

- The existing conservation easement prohibits the construction of a roadway on the parcel. However, the parcel may be condemned through eminent domain to allow the construction of Lake Parkway extension through the parcel.
- The Lake Parkway extension is also estimated to impact 12.1 acres of land owned by MMSD that was purchased for conservation purposes.
- **Prime Agricultural Land**
 - The Lake Parkway extension will not require acquisition of any designated prime agricultural lands.
 - The Lake Parkway extension is estimated to require acquisition of 44.3 acres of existing agricultural land. About 22.1 acres are lands planned for urban development, and the remaining 22.2 acres are located within the primary environmental corridor.
- **Critical Species Areas**
 - The Lake Parkway extension is estimated to impact 1.7 acres of an area identified for potential expansion of the Bluestem Goldenrod, which is designated as a State endangered plant. However, the Bluestem Goldenrod is not currently found in this area.
 - Therefore, the Lake Parkway extension would not be expected to directly impact the Bluestem Goldenrod at the location of the potential alignment.
- **Utility Impacts**
 - We Energies, American Transmission Company, the MMSD, and West Shore Pipelines have utilities within the We Energies right-of-way that is adjacent to the UPR rail line between Layton Avenue and Forest Hill Avenue. South of Forest Hill Avenue, the We Energies right-of-way diverges to the east away from the UPR right-of-way.
 - We Energies-Electric
 - Between Edgerton Avenue and Rawson Avenue – Lake Parkway extension would potentially impact, and require the relocation of,

Attachment 2 (continued)

existing electric distribution lines located within the We Energies right-of-way.

- Between Rawson Avenue and Forest Hill Avenue – Lake Parkway extension would be located outside of the We Energies right-of-way, and would avoid significantly impacting the existing electric facilities within the utility right-of-way.
- We Energies-Gas
 - Between Edgerton Avenue and Rawson Avenue – Lake Parkway extension would potentially impact, and potentially require the relocation of, existing underground gas lines and four regulator/valve stations.
 - Rawson Avenue and Forest Hill Avenue – Lake Parkway extension can be located outside of the We Energies right-of-way to avoid significantly impacting existing gas facilities within the utility right-of-way.
- American Transmission Company (ATC)
 - Between a point 1,000 feet north of College Avenue and Rawson Avenue – Lake Parkway extension would potentially impact, and require the relocation of, ATC's existing double-circuit, 138 kV electric transmission lines.
 - ATC staff indicated that a narrower than desired easement for their transmission lines between the UPR rail line and the Lake Parkway extension may be feasible. However, ATC staff provided a list of possible concerns and issues:
 - ATC would need to coordinate any maintenance or improvement work to their lines with the Wisconsin Department of Transportation and the UPR.
 - Relocating the transmission lines may affect the need and location of relocation of other utilities' facilities within the We Energies right-of-way.
 - ATC would need to acquire an easement from UPR.

Attachment 2 (continued)

- Relocating the transmission lines would need to follow Federal Aviation Administration and Milwaukee County height restrictions along General Mitchell International Airport.
- The relocated transmission lines would need to be constructed to maintain adequate clearance of lines above potential structures at and south of College Avenue.
- Protective barriers would be needed along the Lake Parkway extension at the base of ATC poles.
- The transmission lines could also be buried should relocating the transmission lines on overhead poles not be feasible. However, burying the lines would be undesirable due to:
 - Higher cost (potentially 20 times higher than relocating on overhead poles),
 - Difficult to maintain,
 - Need for higher capacity lines, and
 - Need for additional time for design and construction.
- Between Rawson Avenue and Forest Hill Avenue – Lake Parkway extension can be located outside of the We Energies right-of-way, and would avoid significantly impacting existing ATC facilities within the utility right-of-way.
- Milwaukee Metropolitan Sewerage District (MMSD)
 - Between Edgerton Avenue and Rawson Avenue – Lake Parkway extension may potentially be constructed above four existing buried 16-inch pipes, should MMSD be able to maintain access to these pipes from the surface.
 - Between Rawson Avenue and Forest Hill Avenue – Lake Parkway extension can be located outside of the We Energies right-of-way, and

Attachment 2 (continued)

would avoid significantly impacting existing MMSD facilities within the utility right-of-way.

- West Shore Pipeline
 - From Layton Avenue to about 650 feet south of Layton Avenue, the Lake Parkway extension may impact an existing idle petroleum pipeline by implementation of a southbound on-ramp to the Lake Parkway extension.
 - From about 650 south of Layton Avenue to a point midway between College Avenue and Rawson Avenue, the pipeline is west of the UPR rail line and would not likely be impacted by the Lake Parkway extension.
- **Other Potential Issues**
 - Impacts of proximity of Lake Parkway extension to existing at-grade railroad crossings:
 - Based on the availability of adequate land at most roadway crossings of the Lake Parkway extension, it is anticipated that none of the at-grade intersections and ramps of the grade-separated interchanges are anticipated to be located less than the minimum ideal distance of 125 feet from existing at-grade railroad crossings, per the Wisconsin Department of Transportation's Facilities Design Manual.
 - There would not be adequate separation between the UPR rail line and an at-grade intersection or a grade-separated interchange of the Lake Parkway extension at College Avenue, due to the existing and planned development adjacent to the We Energies right-of-way. However, the provision of the jughandle ramp at College Avenue allows an adequate separation from the existing UPR rail line.
 - Impacts to General Mitchell International Airport (GMIA):
 - The Lake Parkway extension would need to be constructed to follow Federal Aviation Administration (FAA) and Milwaukee County height restrictions for new structures built along and near GMIA.
 - FAA would need to review and approve the construction of any structure that could affect the navigable airspace.

Attachment 2 (continued)

- Milwaukee County has an ordinance restricting the height of new facilities adjacent to GMIA.
 - Height restrictions are 35 feet above existing ground adjacent to GMIA, and are higher further away from GMIA.
 - A variance to the ordinance could potentially be granted by Milwaukee County should FAA approve the construction of a new facility.
- Five locations of potential concern along GMIA were identified and analyzed by SEWRPC staff:
 - 300 feet north of Grange Avenue, where two runways converge;
 - At Grange Avenue, where the Lake Parkway extension would overpass the roadway;
 - 1,700 feet north of College Avenue, where an east-west runway is planned;
 - At College Avenue, where the Lake Parkway extension would overpass the roadway; and
 - 850 feet north of College Avenue, where the jughandle ramp would cross the existing UPR rail line.
- Analysis by SEWRPC staff did not identify any height restriction issue that would make constructing the Lake Parkway extension infeasible.
- Ultimately, the implementing agency (WisDOT) would need to submit plans during preliminary engineering and environmental impact study for FAA review and determination of whether the Lake Parkway extension can be built along and near GMIA.
- Per FAA requirements, the Lake Parkway extension would need to be constructed in a manner that would not attract wildlife.
 - This could affect the location and type of stormwater management facilities and landscaping features that could be provided adjacent to GMIA.

Attachment 2 (continued)

- Impacts to 128th Air Refueling Wing of the Wisconsin Air National Guard resulting implementation of the Lake Parkway extension:
 - Three areas of potential concern were identified by 128th Air Refueling Wing representatives:
 - Potential effect of Lake Parkway extension along Grange Avenue.
 - Implementation of the Lake Parkway extension is not anticipated to require the acquisition of any land owned by the 128th Refueling Wing intended for development.
 - Need to maintain security of existing and future facilities.
 - Where the Lake Parkway extension would be elevated adjacent to their facilities, 128th Air Refueling Wing Representatives desire the use of barrier walls along the extension.
 - Need for suitable locations for secured access to their facilities.
 - 128th Air Refueling Wing is currently planning to move their existing secured gate along Grange Avenue to just west of Pennsylvania Avenue.
 - Lake Parkway extension (along with the existing UPR rail line) would be behind the relocated secured gate.
 - Secured gate could also be relocated to other existing GMIA entrances located at College Avenue and Layton Avenue.
- Impacts on proposed new U.S. Postal facility to be located southwest of the intersection of Pennsylvania Avenue and College Avenue resulting from implementation of the Lake Parkway extension:

Attachment 2 (continued)

- The alignment of the Lake Parkway extension is located within the UPR rail and We Energies right-of-ways along the property of the proposed new U.S. Postal facility, and is not expected to have a direct impact on the proposed facility.
- The access to the Lake Parkway extension on College Avenue would be via a jughandle ramp that would intersect College Avenue west of the UPR rail line, and is not expected to affect the proposed entrances to the proposed new U.S. Postal facility.
- Impacts to access of adjacent businesses and residences located along roadways intersecting the Lake Parkway extension:
 - SEWRPC staff identified properties that may have reductions in access to allow for the provision of safe and adequate access to the Lake Parkway extension.
 - The access of six properties would potentially be reduced to right-in and right-out access due to the closing of existing median openings or the need for medians for the provision of left-turn lanes (one on College Avenue, three on Drexel Avenue, and two on Puetz Road).
 - Four properties that currently have two driveways may potentially be required to reduce their access to one driveway (one on College Avenue, one on Rawson Avenue, one on Drexel Avenue, and one on Puetz Road).
 - Due to portions of their property potentially being acquired for implementation of the Lake Parkway extension, two properties may potentially be required to relocate their existing driveway (one on Rawson Avenue and one on Drexel Avenue).
 - In addition, WisDOT may restrict new access onto crossing roadways within 1,000 to 1,320 feet from the ramps of grade-separated interchanges.

3. Costs

- **Capital Costs (Year 2010 Dollars)**
 - The estimated capital costs for the potential Lake Parkway extension between Edgerton Avenue and STH 100 is provided in Table B-3.

Attachment 2 (continued)

Table B-3

ESTIMATED CAPITAL COSTS FOR THE POTENTIAL LAKE PARKWAY EXTENSION
BETWEEN EDGERTON AVENUE AND STH 100

Item	Capital Costs
Construction ^a	\$192.8 million
Right-of-Way ^b	5.7 million
Utility Relocation ^b	8.7 million
Total	\$207.2 million

^a Construction costs include the estimated costs for roadway construction (including interchanges, bridges, traffic signals, storm sewer, retaining walls, earthwork, restoration, and wetland mitigation) and engineering and contingencies.

^b Right-of-way acquisition and highway easements within utility right-of-way are included in the capital cost estimates for right-of-way. The estimated costs to relocate any existing utility facilities, including gas lines, electric distribution lines, and electric transmission line poles and towers, are included in the capital cost estimates for utility relocation.

* * *

Attachment 3
Revised Section of

Exhibit B

POTENTIAL BENEFITS, IMPACTS, AND COSTS OF A LAKE PARKWAY EXTENSION

2. Impacts

- **Right-of-Way Impacts**

- **Utility Impacts**

- American Transmission Company (ATC)

- Between a point 1,000 feet north of College Avenue and Rawson Avenue – Lake Parkway extension would potentially impact, and require the relocation of, ATC's existing double-circuit, 138 kV electric transmission lines.

The following text is proposed to replace the second bullet under the above sub-heading on page 12 of Exhibit B. The revised text describes the impacts if it becomes necessary for the Lake Parkway extension to avoid impacting existing ATC transmission lines.

- Should a narrower than desired ATC easement not be feasible to allow both the relocated ATC transmission lines and the Lake Parkway extension to be located within the UPR and We Energies right-of-way:

- The transmission lines could be buried. However, burying the lines would be undesirable due to:

- Higher cost (potentially 20 times higher than relocating on overhead poles),
 - Difficult to maintain,
 - Need for higher capacity lines, and
 - Need for additional time for design and construction.

- The Lake Parkway extension could be located partially outside the We Energies right-of-way between a point

Attachment 3 (continued)

1,000 feet north of College Avenue and Rawson Avenue to potentially avoid impacting existing ATC transmission lines, as shown on Map B-2. The west edge of the Lake Parkway right-of-way is located along the line of existing ATC transmission poles and lines.

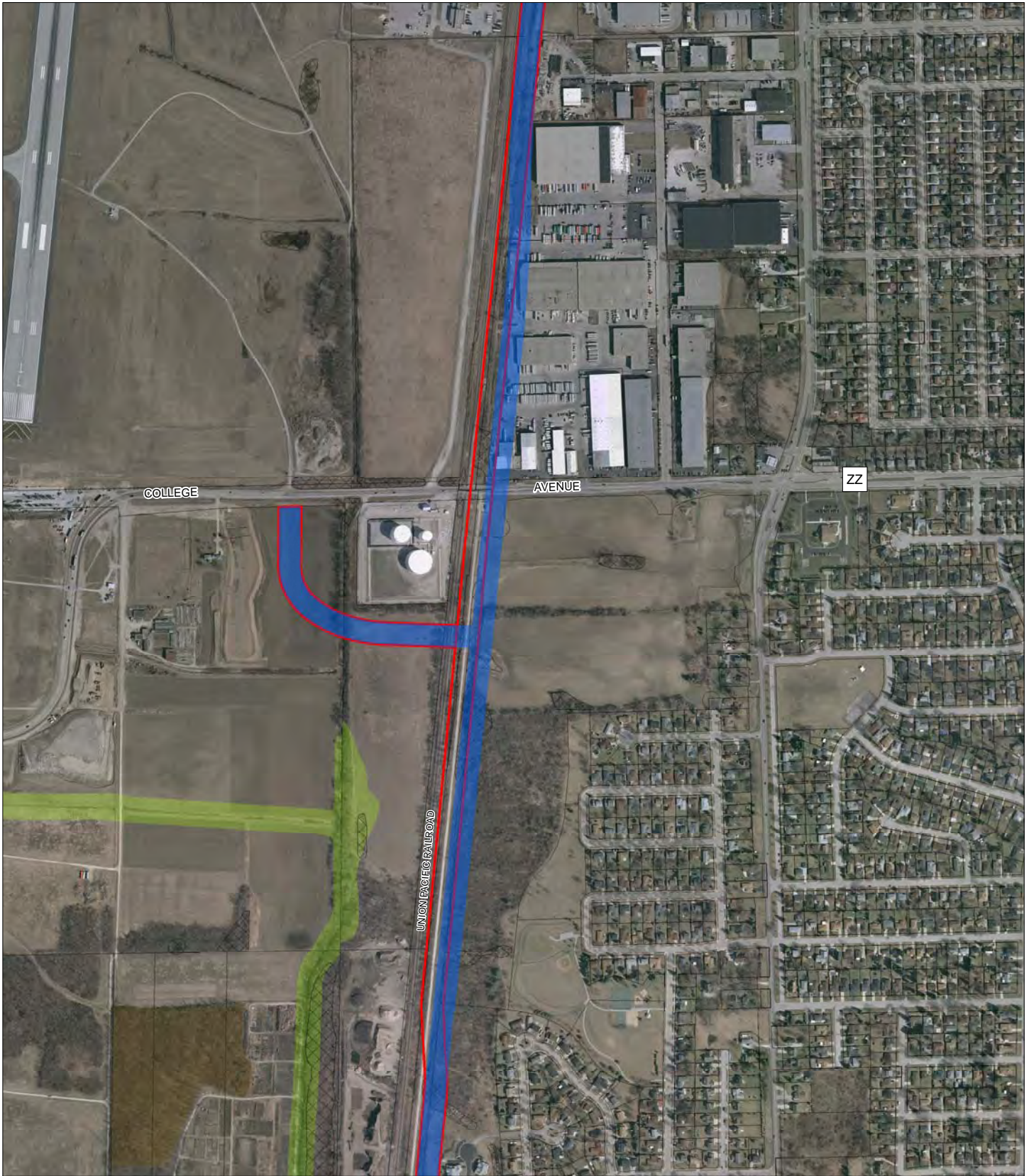
- Avoiding impacting the ATC transmission lines would reduce the estimated cost of utility relocation by about \$1.5 to \$2.8 million by potentially eliminating the need to relocate the existing ATC transmission lines, and also potentially We Energies gas facilities, between a point 1,000 feet north of College Avenue and Rawson Avenue.
- However, locating the Lake Parkway extension outside of the We Energies right-of-way to avoid impacting the ATC transmission lines would be undesirable because it would:
 - Require the acquisition of about 9.9 acres of land outside of the We Energies right-of-way (3.6 acres of commercial and industrial land, 5.7 acres of the proposed U.S. Postal Service site, and 0.6 acres of residential land);
 - Require the acquisition or relocation of 3 existing commercial buildings and potentially disrupt the operations of the businesses impacted; and
 - Add about \$6.5 million in right-of-way acquisition costs and \$0.5 million in construction costs.

* * *

Attachment 3 (continued)

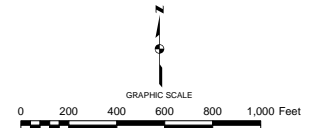
Map B-2

POTENTIAL ALIGNMENT OF LAKE PARKWAY EXTENSION IF NECESSARY TO AVOID AMERICAN TRANSMISSION COMPANY TRANSMISSION LINES BETWEEN A POINT ABOUT 1,000 FEET NORTH OF COLLEGE AVENUE AND RAWSON AVENUE



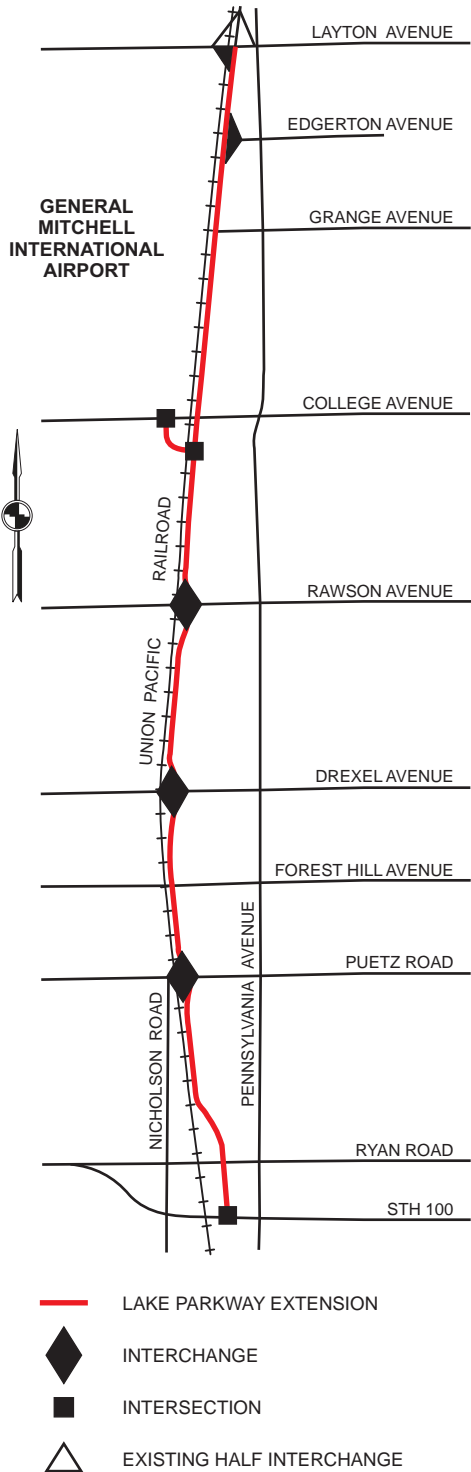
- POTENTIAL RIGHT-OF-WAY FOR LAKE PARKWAY EXTENSION IF NECESSARY TO AVOID AMERICAN TRANSMISSION COMPANY TRANSMISSION LINES
- PREFERRED RIGHT-OF-WAY FOR LAKE PARKWAY EXTENSION

- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA
- WETLANDS



Attachment 4

POTENTIAL LAKE PARKWAY EXTENSION DESIGN



Summary of Elements of Lake Parkway Extension Design

1. Alignment

- Lake Parkway extension would be routed between Edgerton Avenue and STH 100 in Milwaukee County with the following general alignment:
 - Edgerton Avenue to Rawson Avenue: adjacent to the Union Pacific Railroad (UPR) rail line, partly within UPR rail right-of-way and We Energies right-of-way.
 - Rawson Avenue to Forest Hill Avenue: outside but adjacent to We Energies right-of-way.
 - Forest Hill Avenue to STH 100: continues adjacent to UPR rail right-of-way.

2. Cross-section

- Typical cross-section: urban divided roadway with four travel lanes, two auxiliary lanes, and a multi-use trail.
- Overall right-of-way width: 130 feet (may be possible to reduce width by about 25 feet between major arterials).
- Designed speed limit: 40 miles per hour—similar to existing Lake Parkway.

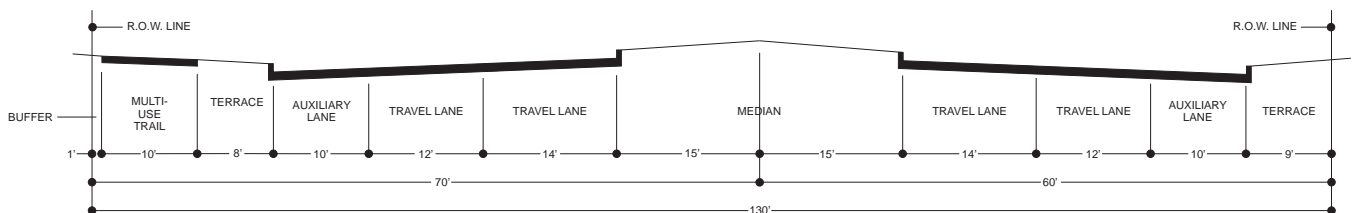
3. Roadway Crossing Treatments

- Access to Lake Parkway extension restricted to main arterial roadways.
- Preferred crossing treatments:
 - Layton Avenue: Add access via SB on-ramp to existing half interchange
 - Edgerton Avenue: Replace current connection with access via NB on-and off-ramps
 - Grange Avenue: No access^a
 - College Avenue (CTH ZZ): Overpass with access via “jughandle” ramp
 - Rawson Avenue (CTH BB): Access via grade-separated interchange
 - Drexel Avenue: Access via grade-separated interchange
 - Forest Hill Avenue: Overpass with no access
 - Puetz Road: Access via grade-separated interchange
 - Ryan Road: Cul-de-sac on each side of Lake Parkway
 - STH 100: Access via at-grade intersection west of Pennsylvania Avenue

^a WisDOT should work with 128th Air Refueling Wing and Airport during preliminary engineering and environmental impact study to accomplish appropriate exchange of land to allow secured access to 128th Air Refueling Wing facilities to be relocated to College Avenue and Layton Avenue and secured access at Grange Avenue to be closed. This would allow Lake Parkway extension to be constructed at-grade with cul-de-sacs provided on Grange Avenue on each side of extension.

TYPICAL CROSS-SECTION FOR LAKE PARKWAY EXTENSION

DIVIDED FOUR-LANE URBAN ARTERIAL WITH AUXILIARY LANES AND MULTI-USE TRAIL



NOTE: BETWEEN INTERSECTIONS WITH MAJOR ARTERIALS, THERE MAY BE THE POTENTIAL TO REDUCE THE WIDTH OF THE MEDIAN AND RIGHT-OF-WAY BY ABOUT 25 FEET.

POTENTIAL LAKE PARKWAY EXTENSION DESIGN

1. Elements of Lake Parkway Extension Design

- **Alignment**

- o Map A-1 shows the potential alignment of a Lake Parkway extension between Edgerton Avenue and STH 100 in Milwaukee County.
- o Between Edgerton Avenue and Rawson Avenue (CTH BB), the alignment is shown located adjacent to the Union Pacific Railroad (UPR) rail line within a portion of the UPR rail right-of-way and within the existing We Energies right-of-way.
- o Between Rawson Avenue and Forest Hill Avenue, the alignment is shown outside but adjacent to the We Energies right-of-way to avoid the need for relocation of existing utilities.
- o South of Forest Hill Avenue, the alignment continues adjacent to the UPR rail right-of-way and intersects STH 100 at a point west of Pennsylvania Avenue.

- **Cross-section**

- o Figure A-1 shows the potential cross-section for the Lake Parkway extension.
- o The typical cross-section consists of an urban divided roadway with four travel lanes and two auxiliary lanes.
- o The cross-section includes a multi-use trail to accommodate bicycles and pedestrians. The two auxiliary lanes may also provide adequate bicycle accommodations.
- o The overall right-of-way width for the cross-section is 130 feet. However, between intersections with major arterials, there may be the potential to reduce the width of the median and right-of-way by about 25 feet.
- o A speed limit of 40 miles per hour—similar to that of the existing Lake Parkway—was assumed for the cross-section.

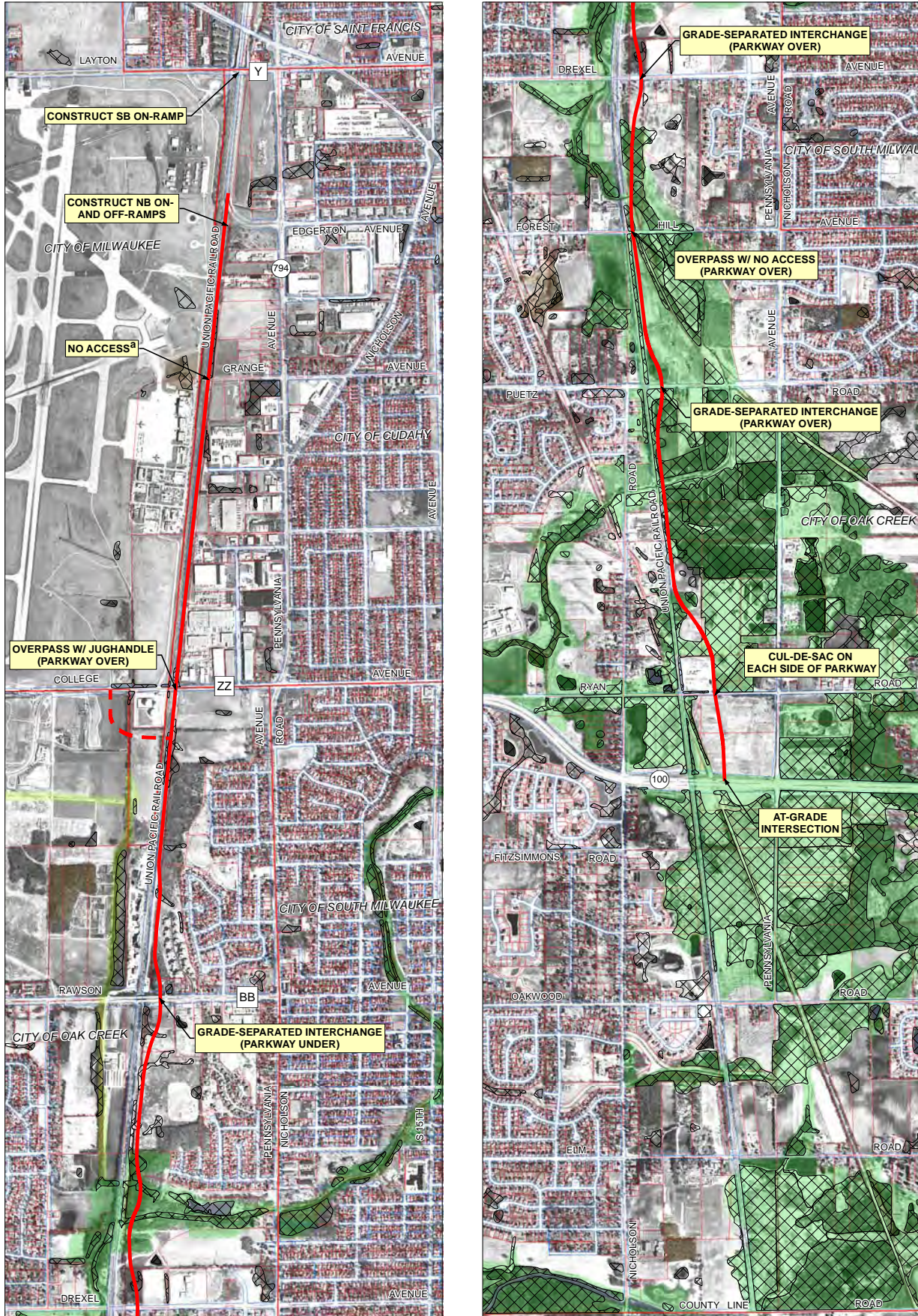
- **Roadway Crossing Treatments**

- o The Advisory Committee considered alternative, and recommended preferred, crossing treatments for each roadway crossing of the Lake Parkway extension between Edgerton Avenue and STH 100.
- o It was also recommended that access to the potential Lake Parkway extension would be restricted to main arterial roadways.

Attachment 4 (continued)

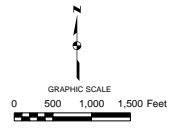
Map A-1

PREFERRED CENTERLINE ALIGNMENT AND ROADWAY CROSSING TREATMENTS FOR A POTENTIAL LAKE PARKWAY EXTENSION BETWEEN EDGERTON AVENUE AND STH 100 IN MILWAUKEE COUNTY



- CENTERLINE ALIGNMENT OF LAKE PARKWAY EXTENSION
- - JUGHANDLE RAMP AT COLLEGE AVENUE
- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA
- SURFACE WATER
- WETLANDS

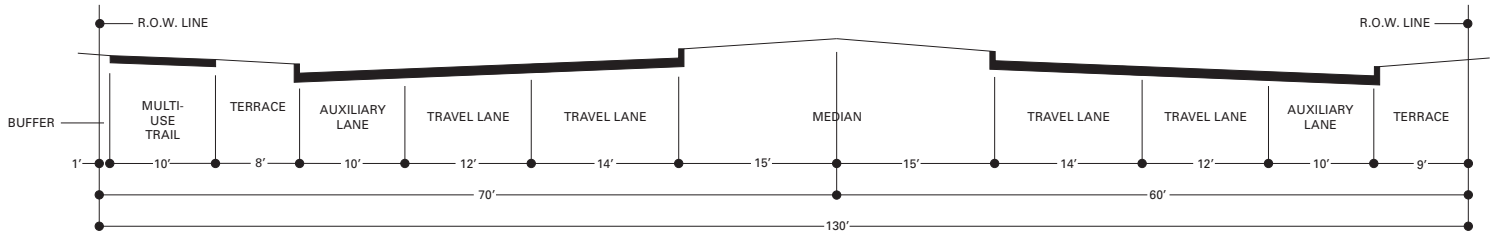
^a WisDOT should work with 128th Air Refueling Wing and General Mitchell International Airport during preliminary engineering and environmental impact study to accomplish appropriate exchange of land to allow secured access to 128th Air Refueling Wing facilities to be relocated to College Avenue and Layton Avenue and secured access at Grange Avenue to be closed. This would allow Lake Parkway extension to be constructed at-grade with cul-de-sacs provided on Grange Avenue on each side of extension.



Attachment 4 (continued)

Figure A-1
TYPICAL CROSS-SECTION FOR LAKE PARKWAY EXTENSION

DIVIDED FOUR-LANE URBAN ARTERIAL WITH AUXILIARY LANES AND MULTI-USE TRAIL



NOTE: BETWEEN INTERSECTIONS WITH MAJOR ARTERIALS, THERE MAY BE THE POTENTIAL TO REDUCE THE WIDTH OF THE MEDIAN AND RIGHT-OF-WAY BY ABOUT 25 FEET.

Attachment 4 (continued)

- o Table A-1 and Map A-1 provide the preferred crossing treatment for each roadway crossing along the potential Lake Parkway extension. Table A-1 also indicates whether access to the Lake Parkway extension would be provided at each roadway.
 - Layton Avenue and Edgerton Avenue – Access would be provided by constructing a southbound on-ramp at Layton Avenue and northbound on- and off-ramps at Edgerton Avenue (see Map A-2).
 - College Avenue – Access would be provided by constructing an overpass with jughandle ramp access (see Map A-3).
 - Rawson Avenue – Access would be provided by grade-separated interchange (see Map A-4).
 - Drexel Avenue – Access would be provided by grade-separated interchange (see Map A-5).
 - Puetz Road – Access would be provided by grade-separated interchange (see Map A-6).
 - STH 100 – Access would be provided by an at-grade intersection west of Pennsylvania Avenue (see Map A-7).
 - No access to the Lake Parkway extension would be provided at Grange Avenue, Forest Hill Avenue, and Ryan Road.
 - At Grange Avenue, WisDOT should work with the 128th Air Refueling Wing and GMIA during preliminary engineering and environmental impact study to accomplish the appropriate exchange of land to allow the secured access to the 128th Air Refueling Wing facilities to be relocated to College Avenue and Layton Avenue and the secured access at Grange Avenue to be closed. This would allow the Lake Parkway extension to be constructed at-grade with cul-de-sacs provided on Grange Avenue on each side of the extension.

* * *

Attachment 4 (continued)

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Table A-1

PREFERRED ROADWAY CROSSING TREATMENTS AND ACCESS AT EACH ROADWAY CROSSING ALONG THE POTENTIAL LAKE PARKWAY EXTENSION BETWEEN EDGERTON AVENUE AND STH 100 IN MILWAUKEE COUNTY

Roadway Crossing	Potential Crossing Treatment	Access Provided
Layton Avenue	Add southbound on-ramp to existing half interchange	Yes
Edgerton Avenue	Replace current connection with northbound on-and off-ramps	Yes
Grange Avenue	No access ^a	No
College Avenue (CTH ZZ)	Overpass with "jughandle" ramp access between Lake Parkway and College Avenue (Lake Parkway over)	Yes
Rawson Avenue (CTH BB)	Grade-separated interchange (Lake Parkway under)	Yes
Drexel Avenue	Grade-separated interchange (Lake Parkway over)	Yes
Forest Hill Avenue	Overpass with no access (Lake Parkway over)	No
Puetz Road	Grade-separated interchange (Lake Parkway over)	Yes
Ryan Road	Cul-de-sac on each side of Lake Parkway	No
STH 100	At-grade intersection west of Pennsylvania Avenue	Yes

^a WisDOT should work with the 128th Air Refueling Wing and General Mitchell International Airport during preliminary engineering and environmental impact study to accomplish the appropriate exchange of land to allow the secured access to the 128th Air Refueling Wing facilities to be relocated to College Avenue and Layton Avenue and the secured access at Grange Avenue to be closed. This would allow the Lake Parkway extension to be constructed at-grade with cul-de-sacs provided on Grange Avenue on each side of the extension.

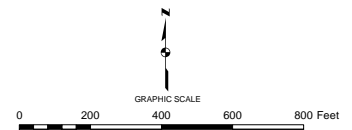
Attachment 4 (continued)

Map A-2

PREFERRED CROSSING TREATMENT FOR LAKE PARKWAY EXTENSION
AT LAYTON AVENUE (CTH Y) AND EDGERTON AVENUE



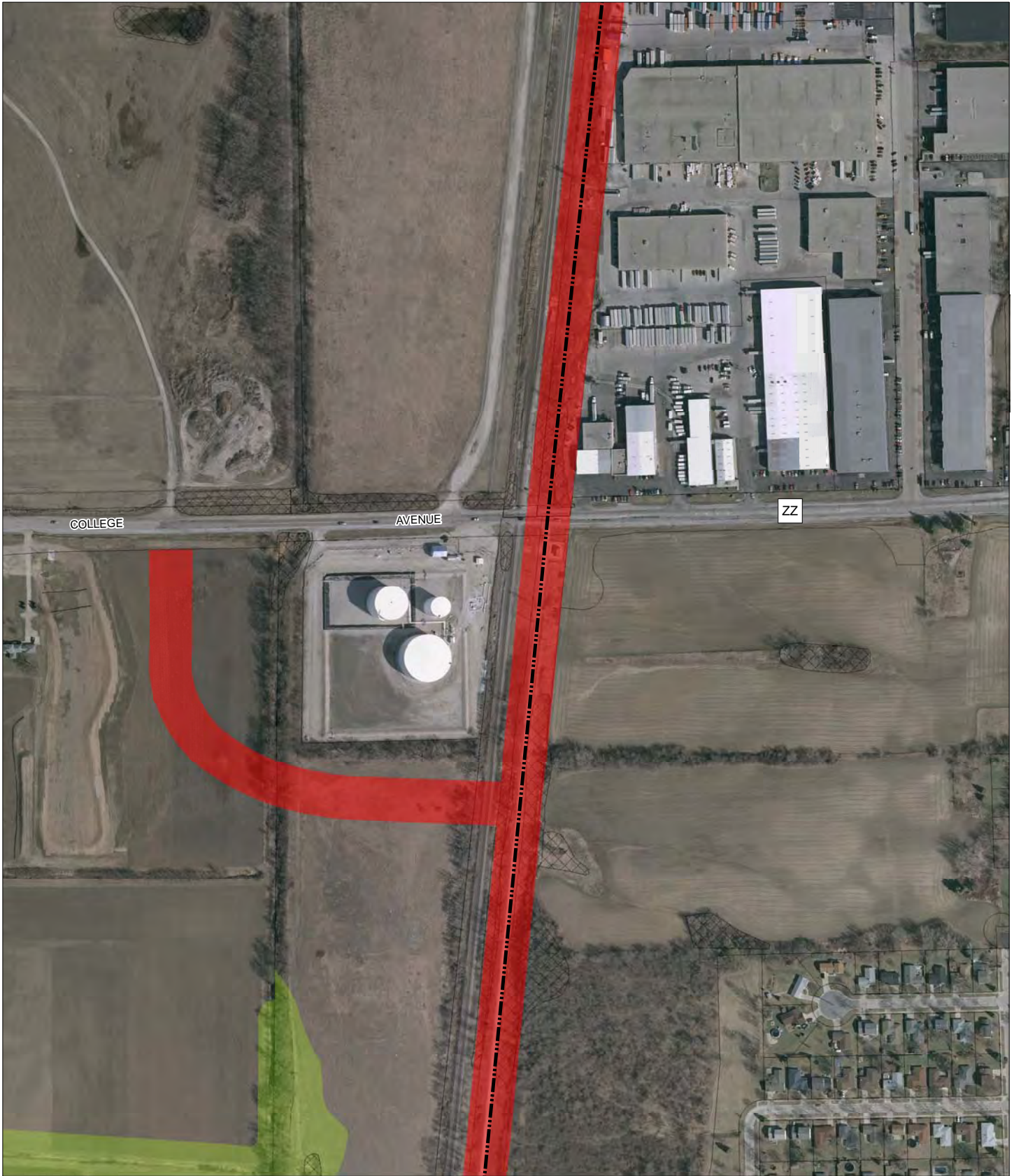
- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION
- POTENTIAL NEW SOUTHBOUND ON-RAMP AT LAYTON AVENUE AND NEW NORTHBOUND ON- AND OFF-RAMPS AT EDGERTON AVENUE



Attachment 4 (continued)

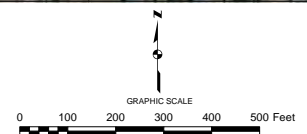
Map A-3

PREFERRED CROSSING TREATMENT FOR
LAKE PARKWAY EXTENSION AT COLLEGE AVENUE



- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION WITH JUGHANDLE RAMP ACCESS AT COLLEGE AVENUE

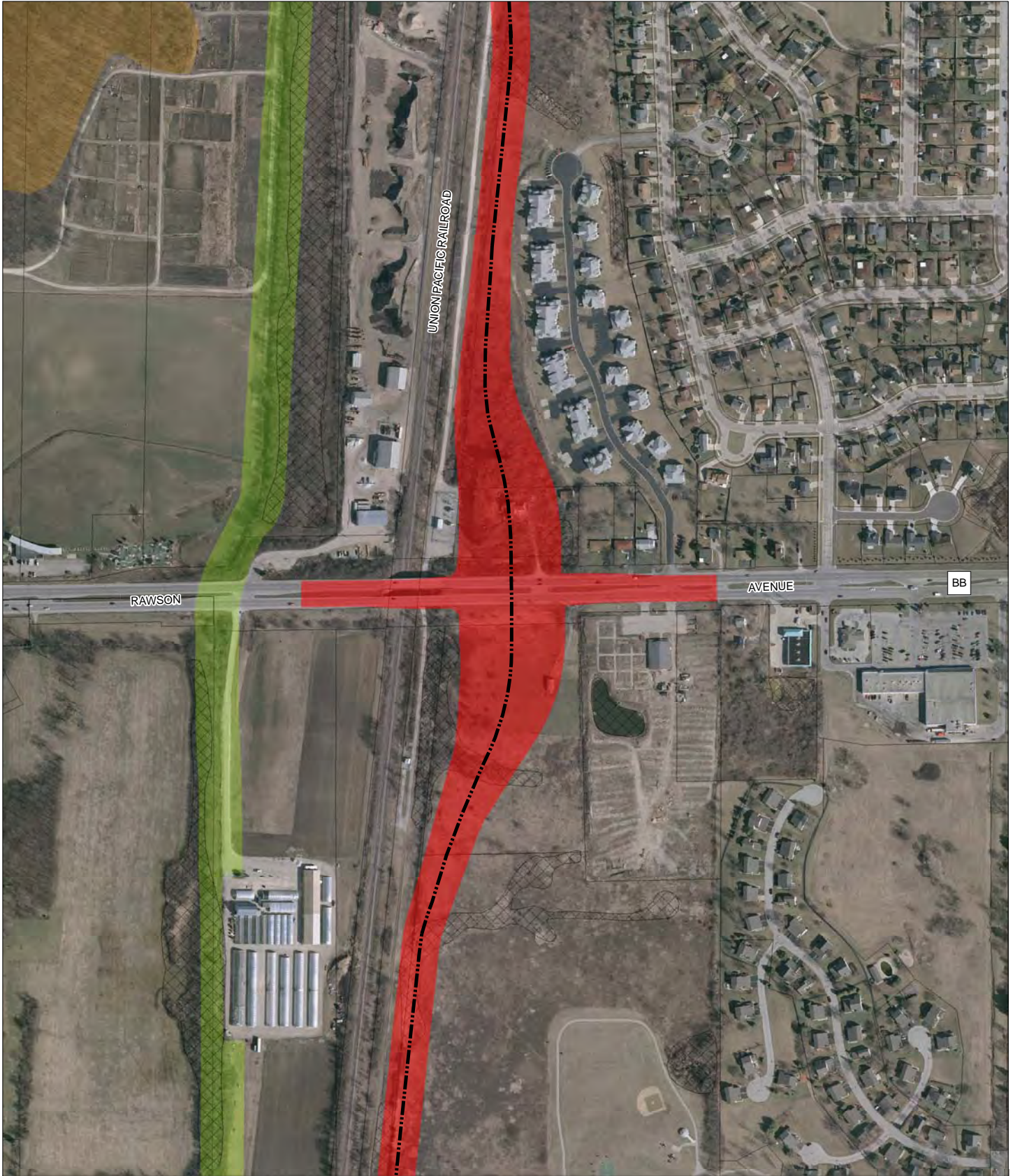
- SECONDARY ENVIRONMENTAL CORRIDOR
- ⊠ WETLANDS



Attachment 4 (continued)

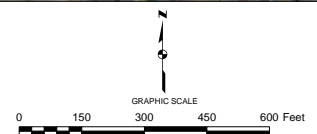
Map A-4

PREFERRED CROSSING TREATMENT FOR
LAKE PARKWAY EXTENSION AT RAWSON AVENUE



- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION

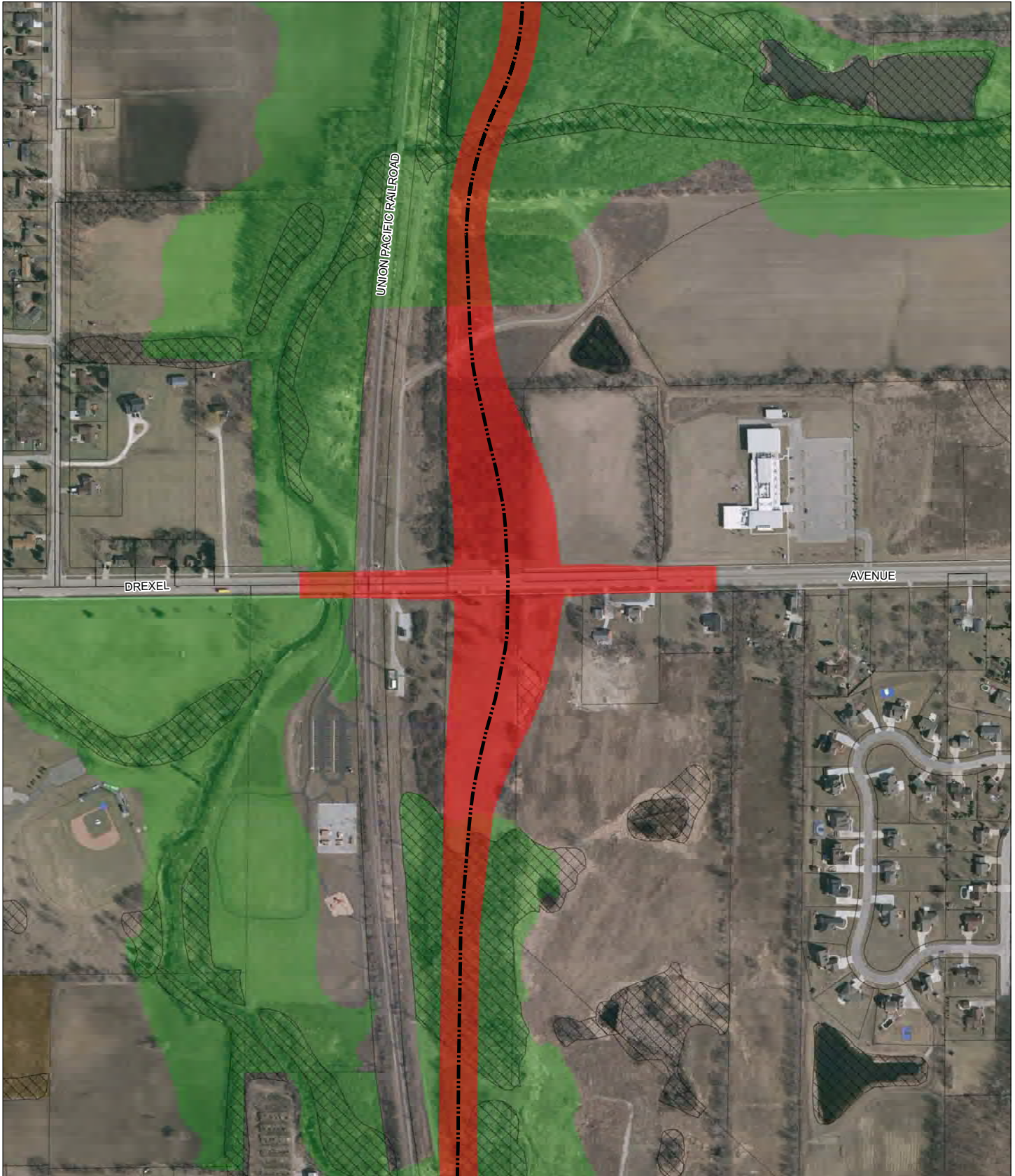
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA
- ⊠ WETLANDS



Attachment 4 (continued)

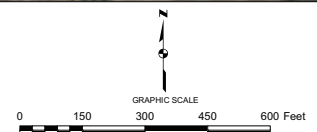
Map A-5

PREFERRED CROSSING TREATMENT FOR
LAKE PARKWAY EXTENSION AT DREXEL AVENUE



- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION

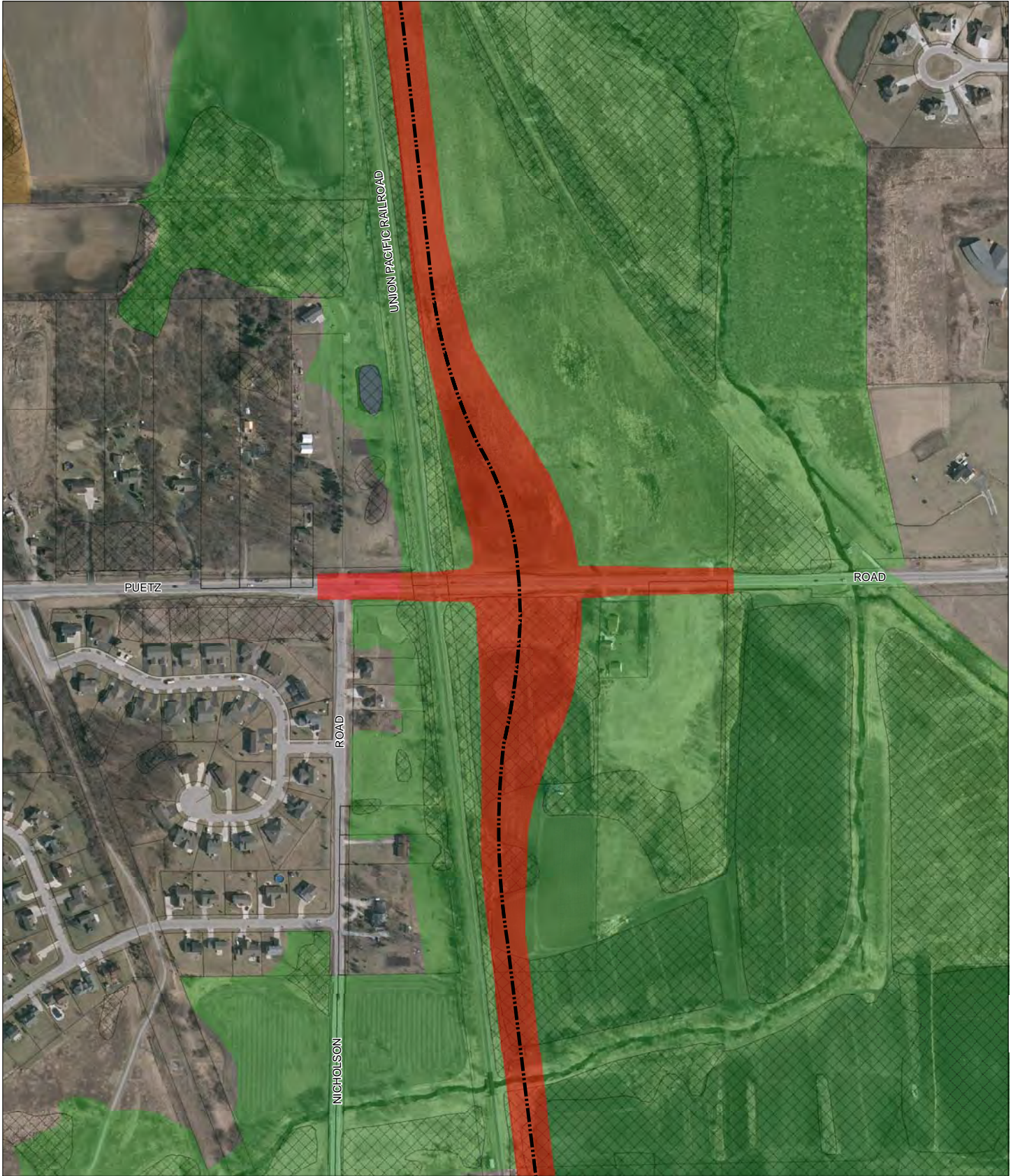
- PRIMARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA
- WETLANDS



Attachment 4 (continued)

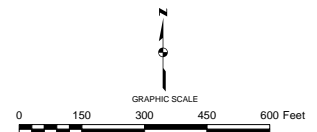
Map A-6

PREFERRED CROSSING TREATMENT FOR
LAKE PARKWAY EXTENSION AT PUETZ ROAD



- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION

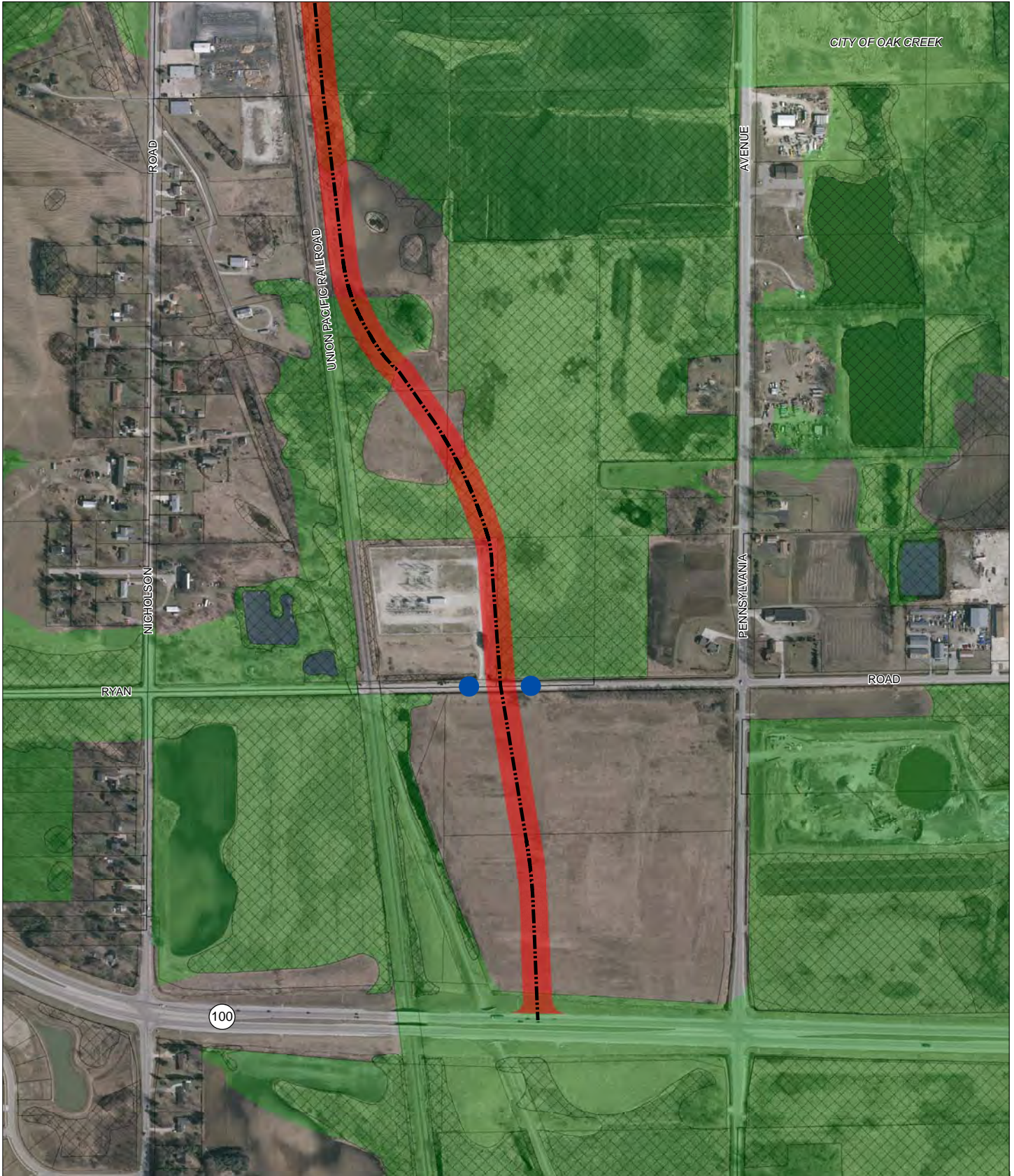
- PRIMARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA
- WETLANDS



Attachment 4 (continued)

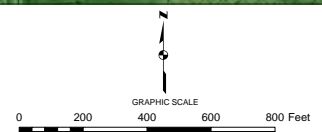
Map A-7

PREFERRED CONNECTION OF
LAKE PARKWAY EXTENSION AT STH 100



- POTENTIAL CENTERLINE FOR LAKE PARKWAY EXTENSION
- POTENTIAL LAKE PARKWAY EXTENSION
- POTENTIAL CUL-DE-SAC OF RYAN ROAD

- PRIMARY ENVIRONMENTAL CORRIDOR
- SURFACE WATER
- ▨ WETLANDS



Attachment 5

SUMMARY OF POTENTIAL BENEFITS, IMPACTS, AND COSTS OF LAKE PARKWAY EXTENSION

1. Anticipated Benefits

- **Improvement in Traffic Congestion (Comparing Year 2035 Forecast Traffic Volumes)**
 - The Lake Parkway extension is forecast to carry 24,000 to 29,000 vehicles per average weekday between Edgerton Avenue and Puetz Road, and about 9,000 vehicles per average weekday between Puetz Road and STH 100.
 - In general, traffic volumes on north-south arterial roadways adjacent to the Lake Parkway extension—including Pennsylvania Avenue, Howell Avenue, 13th Street, Puetz Road, and STH 32 (Chicago Avenue)—would be significantly reduced with the Lake Parkway extension. Projected future congestion would be expected to be eliminated on Pennsylvania Avenue between College Avenue and Edgerton Avenue, and on Howell Avenue between Puetz Road and Drexel Avenue.
 - Exception: traffic volumes would increase, resulting in modest congestion, on the segment of Pennsylvania Avenue between Edgerton Avenue and Layton Avenue, due to northbound traffic exiting the Lake Parkway extension at Edgerton Avenue to get to Layton Avenue.
 - Traffic volumes on some segments of the east-west arterial roadways that would be used to access the Lake Parkway extension—including Rawson Avenue, Drexel Avenue, Puetz Road, and STH 100—would be significantly increased with the Lake Parkway extension. These increases would not result in congestion, with the exception of modest congestion on STH 100 between Pennsylvania Avenue and 15th Avenue.
 - With the Lake Parkway extension, the planned widening from two to four travel lanes on Pennsylvania Avenue between Rawson Avenue and Milwaukee Avenue and on 13th Street between Rawson Avenue and Puetz Road may no longer be needed.
- **Improvement in Accessibility**
 - Estimated travel time between STH 100 and Layton Avenue would be reduced by 5 minutes (10 minutes on Lake Parkway extension; 15 minutes on Pennsylvania Avenue without Lake Parkway extension).
- **Improvement in Safety**
 - Based on an analysis of estimated crash rates, it would be expected that there would be an overall reduction of vehicular crashes with the implementation of the Lake Parkway extension.
 - Between intersections, the crash rate on the Lake Parkway extension would be about half that of Pennsylvania Avenue—the primary arterial which would carry traffic in absence of a Lake Parkway extension.
 - For at-grade intersections of the Lake Parkway extension—College Avenue jughandle ramp and STH 100—crash rates on the Lake Parkway extension may be slightly higher than those of at-grade intersections along Pennsylvania Avenue.
 - For the crossings with grade-separated interchanges—Layton, Edgerton, Rawson, and Drexel Avenues, and Puetz Road—crash rates where the crossing roadways intersect ramps of the Lake Parkway extension may be slightly higher than intersection crash rates of at-grade intersections along Pennsylvania Avenue. However, the total number of intersection crashes would be less for a grade-separated interchange than an at-grade intersection as through traffic on the Lake Parkway extension would freely flow through an interchange and avoid conflicts with the traffic on the crossing roadways.

2. Potential Impacts

- **Right-of-way Impacts**

Evaluation Measure	Lake Parkway Extension
Residential structure acquisition/relocation	1
Right-of-way acquisition (acres)	118
Primary environmental corridors impacted (acres)	41
Wetlands impacted (acres)	27
Park/recreational land impacted—Oak Creek Parkway	20

- No commercial, industrial, or institutional structures would need to be acquired or relocated.
- 56 residential units and 12 commercial/industrial structures would be disrupted based on being located within 200 feet of the Lake Parkway extension.
- No secondary environmental corridors, isolated natural resource areas, or prime agricultural land would be impacted.
- We Energies electric and gas facilities and American Transmission Company electric transmission lines within the We Energies right-of-way between Edgerton Avenue and Rawson Avenue would need to be relocated.
- **Other Potential Issues**
 - The Lake Parkway extension would need to be constructed to follow Federal Aviation Administration (FAA) and Milwaukee County height restrictions for new structures along and near General Mitchell International Airport.
 - Should the Lake Parkway extension proceed to implementation, potential security concerns relating to existing and planned 128th Air Refueling Wing facilities would need to be addressed during preliminary engineering and environmental impact study.

3. Estimated Cost

Capital Costs (Year 2010 Dollars)

Construction	\$192.8 million
Right-of-way	5.7 million
Utility Relocation	8.7 million
Total	\$207.2 million

POTENTIAL BENEFITS, IMPACTS, AND COSTS OF A LAKE PARKWAY EXTENSION

1. Benefits

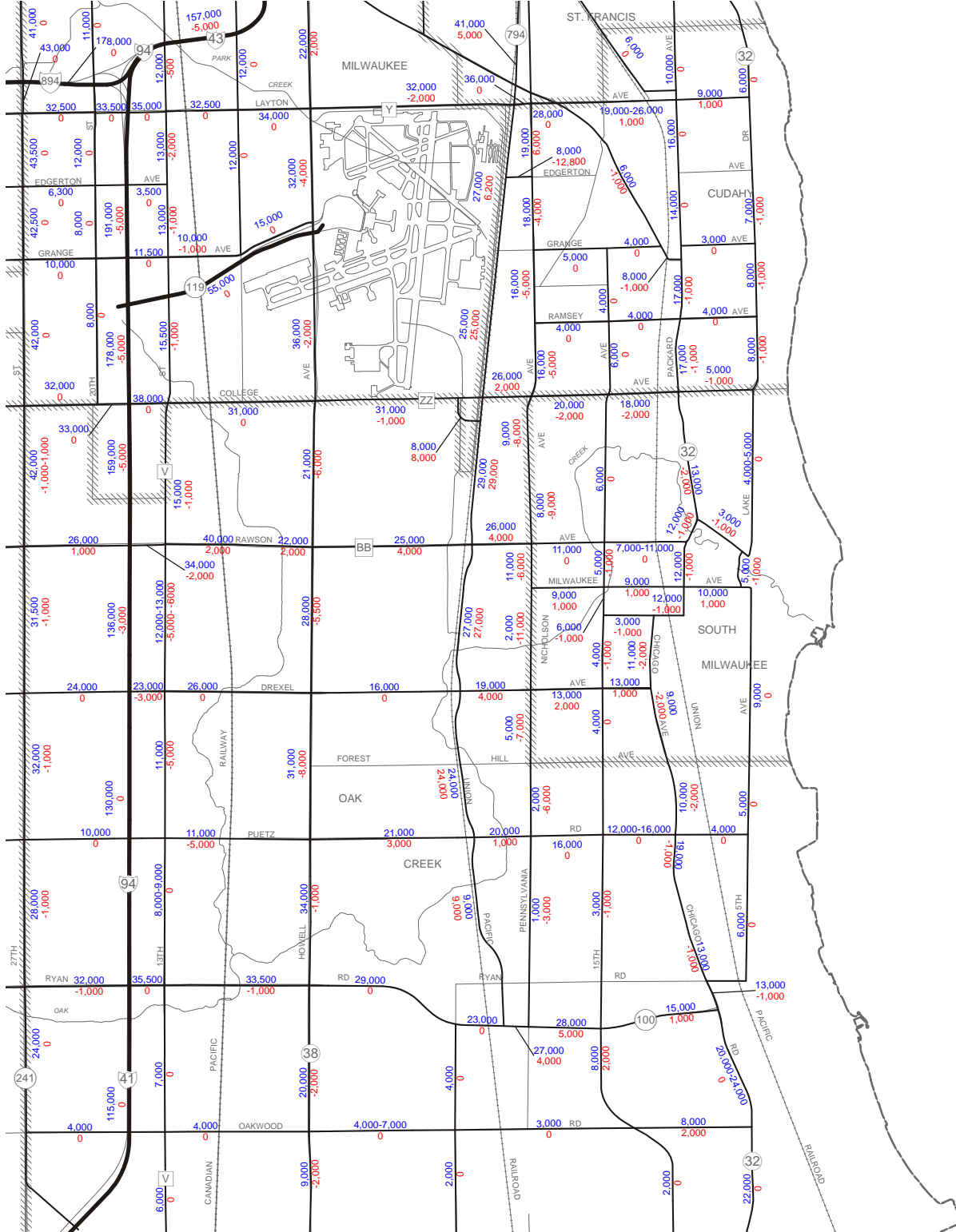
- **Traffic**

- Map B-1 shows the year 2035 forecast traffic volumes on the potential Lake Parkway extension, and on the adjacent planned arterial street and highway system with implementation of the extension.
- Forecast year 2035 average weekday traffic volumes for the Lake Parkway extension:
 - Between STH 100 and Puetz Road – 9,000 vehicles per average weekday.
 - Between Puetz Road and Layton Avenue – 24,000 to 29,000 vehicles per average weekday.
 - North of Layton Avenue – The forecast year 2035 average weekday traffic volumes on the existing Lake Parkway would increase by about 5,000 vehicles per average weekday with implementation of the extension.
- The segments of adjacent arterial streets and highways with estimated significant reductions in forecast year 2035 average weekday traffic volumes as a result of the implementation of the Lake Parkway extension are provided in Table B-1. In general, traffic volumes on segments of north-south arterial roadways adjacent to the Lake Parkway extension—Pennsylvania Avenue, Howell Avenue, 13th Street, Puetz Road, and STH 32 (Chicago Avenue)—are estimated to be significantly reduced.
- The segments of adjacent arterial streets and highways with estimated significant increases in forecast year 2035 average weekday traffic volumes as a result of the implementation of the Lake Parkway extension are also provided in Table B-1. Traffic volumes on segments of east-west roadways that would be used to access the Lake Parkway extension—Rawson Avenue, Drexel Avenue, Puetz Road, and STH 100—are estimated to increase. In addition, traffic volumes on Pennsylvania Avenue between Edgerton Avenue and Layton Avenue are estimated to significantly increase mainly due to northbound traffic exiting the Lake Parkway at Edgerton Avenue and then travelling along Pennsylvania Avenue to Layton Avenue.

Attachment 5 (continued)

Map B-1

YEAR 2035 FORECAST AVERAGE WEEKDAY TRAFFIC VOLUMES ON THE PLANNED ARTERIAL STREET AND HIGHWAY SYSTEM IN SOUTHEAST MILWAUKEE COUNTY AREA WITH LAKE PARKWAY EXTENSION



YEAR 2035 FORECAST AVERAGE WEEKDAY TRAFFIC VOLUMES

20,000 WITH LAKE PARKWAY EXTENSION

-2,000 CHANGE RESULTING FROM LAKE PARKWAY EXTENSION

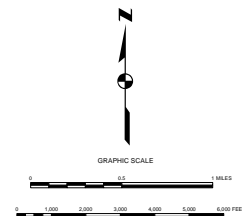
ARTERIAL STREET OR HIGHWAY

— SURFACE ARTERIAL

— FREEWAY

Source: SEWRPC

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Attachment 5 (continued)

Table B-1

SEGMENTS OF ARTERIAL STREET AND HIGHWAY WITH ESTIMATED SIGNIFICANT CHANGES IN FORECAST YEAR 2035 TRAFFIC VOLUMES IN SOUTHEAST MILWAUKEE COUNTY RESULTING FROM IMPLEMENTATION OF A LAKE PARKWAY EXTENSION BETWEEN EDGERTON AVENUE AND STH 100

Segments with Significant Reductions in Forecast Year 2035 Traffic Volumes

Roadway	Limits	Year 2035 Forecast Traffic Volumes (Vehicles Per Average Weekday)		Estimated Reduction in Traffic Volumes Resulting from Potential Lake Parkway Extension	
		Without Lake Parkway Extension	With Lake Parkway Extension	Vehicles Per Average Weekday	Percent Reduction
Pennsylvania Avenue	Edgerton Avenue to College Avenue	21,000 to 22,000	16,000 to 18,000	4,000 to 5,000	18-24
	College Avenue to Milwaukee Avenue	17,000	8,000 to 11,000	6,000 to 9,000	32-52
	Milwaukee Avenue to Puetz Road	8,000 to 13,000	2,000 to 5,000	6,000 to 11,000	58-85
	Puetz Road to STH 100	4,000	1,000	3,000	75
Howell Avenue (STH 38)	College Avenue to Drexel Avenue	27,000 to 33,500	21,000 to 28,000	5,500 to 6,000	16-22
	Drexel Avenue to Puetz Road	39,000	31,000	8,000	21
13th Street	Rawson Avenue to Puetz Road	16,000 to 18,000	11,000 to 13,000	5,000 to 6,000	28-33
Puetz Road	13th Street to Howell Avenue	16,000	11,000	5,000	31
Chicago Avenue (STH 32)	College Avenue to Marquette Avenue	11,000 to 13,000	9,000 to 11,000	2,000	15-18

Segments with Significant Increases in Forecast Year 2035 Traffic Volumes

Roadway	Limits	Year 2035 Forecast Traffic Volumes (Vehicles Per Average Weekday)		Estimated Increase in Traffic Volumes Resulting from Potential Lake Parkway Extension	
		Without Lake Parkway Extension	With Lake Parkway Extension	Vehicles Per Average Weekday	Percent Increase
Pennsylvania Avenue	Layton Avenue to Edgerton Avenue	13,000	19,000	6,000	46
Rawson Avenue	Howell Avenue to Pennsylvania Avenue	21,000 to 22,000	25,000 to 26,000	4,000	18-19
Drexel Avenue	Lake Parkway Extension to Pennsylvania Avenue	15,000	19,000	4,000	26
Puetz Road	Howell Avenue to Lake Parkway Extension	18,000	21,000	3,000	17
STH 100	Lake Parkway Extension to 15th Avenue	23,000	27,000 to 28,000	4,000 to 5,000	17-22

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Attachment 5 (continued)

- The estimated effect of the Lake Parkway extension on future congestion on adjacent arterial streets and highways is as follows:
 - The level of projected future congestion is expected to improve from moderate congestion to no congestion on Pennsylvania Avenue between College Avenue and Edgerton Avenue, and on Howell Avenue between Puetz Road and Drexel Avenue.
 - The level of projected future congestion is expected to increase from no congestion to moderate congestion on Pennsylvania Avenue between Layton Avenue and Edgerton Avenue, and on STH 100 between the Lake Parkway extension and 15th Avenue. However, the forecast traffic volumes on these facilities would only modestly exceed the traffic volume threshold of moderate congestion.
- The estimated effect of Lake Parkway extension traffic diversion on planned roadway widening.
 - Implementation of the Lake Parkway extension would avoid the need for the planned widening from two to four traffic lanes on Pennsylvania Avenue between Rawson Avenue and Milwaukee Avenue and on 13th Street between Rawson Avenue and Puetz Road, and the potential widening from two to four traffic lanes on Pennsylvania Avenue between Milwaukee Avenue and STH 100 and on 13th Street between Puetz Road and STH 100.
- Improvement in accessibility as a result of Lake Parkway extension:
 - The travel time between STH 100 and Layton Avenue would be 10 minutes with implementation of the Lake Parkway extension and 15 minutes without implementation of a Lake Parkway extension (a reduction of 5 minutes).
- **Safety**
 - Comparison of expected crash rates on a Lake Parkway extension to crash rates on arterials which would carry traffic in the absence of a Lake Parkway extension:
 - SEWRPC staff compared estimated crash rates for segments of a Lake Parkway extension and Pennsylvania Avenue—the primary arterial which would carry

Attachment 5 (continued)

traffic in the absence of a Lake Parkway extension—between Layton Avenue and STH 100.

- The crash rate on the Lake Parkway extension is expected to be about half the crash rate on Pennsylvania Avenue between Layton Avenue and STH 100 (88 crashes per 100 million vehicle-miles travelled estimated for the Lake Parkway extension compared to 166 crashes per 100 million vehicle-miles travelled on Pennsylvania Avenue).
- The intersection crash rates at the College Avenue jughandle ramp and STH 100 intersections with the Lake Parkway extension would be expected to be slightly higher than the crash rates of the at-grade intersections along Pennsylvania Avenue (71 crashes per 100 million approaching vehicles estimated for the Lake Parkway extension compared to 53 crashes per 100 million approaching vehicles on Pennsylvania Avenue).
- For the crossings with grade-separated interchanges, it is expected that the intersection crash rates where the crossing roadways intersect the ramps of the Lake Parkway extension would be higher than the intersection crash rates of the at-grade intersections along Pennsylvania Avenue (69 crashes per 100 million approaching vehicles estimated for the Lake Parkway extension compared to 53 crashes per 100 million approaching vehicles on Pennsylvania Avenue). However, it would be anticipated that the total number of intersection crashes would be less with the provision of a grade-separated interchange compared to an at-grade intersection as the through traffic on the Lake Parkway extension would freely flow through an interchange and not conflict with the traffic on the crossing roadways.
- Therefore, it would be expected that there would be a significant overall reduction in vehicle crashes, and improvement in traffic safety, with the implementation of the Lake Parkway extension.

Attachment 5 (continued)

2. Impacts

- **Right-of-Way Impacts**

- Table B-2 provides a summary of the estimated right-of-way impacts attendant to the potential Lake Parkway extension.
- **Property and Structure Acquisitions/Relocations**
 - The Lake Parkway extension is estimated to require the acquisition of about 118 acres of right-of-way.
 - The Lake Parkway extension is estimated to require the acquisition or relocation of 1 residential structure, and 0 commercial, industrial, or institutional structures.
- **Structure Disruptions**
 - A “disruption” is defined as any residential unit, commercial or industrial structure, or institutional structure located within about 200 feet of the right-of-way required for the Lake Parkway extension.
 - The Lake Parkway extension is estimated to disrupt 56 residential units, 12 commercial or industrial structures, and 0 institutional structures.
- **Primary Environmental Corridors, Secondary Environmental Corridors, and Isolated Natural Resource Areas**
 - Primary environmental corridors, secondary environmental corridors, and isolated natural resource areas have been identified and delineated as areas within Southeastern Wisconsin in which the best remaining elements of the natural resource base occur.
 - The Lake Parkway extension is estimated to impact 41 acres of primary environmental corridor, 0 acres of secondary environmental corridor, and 0 acres of isolated natural area.
- **Wetlands**
 - The Lake Parkway extension is estimated to impact 27 acres of wetlands.
 - However, based on an analysis by SEWRPC staff, there appear to be suitable wetland mitigation locations in the vicinity of the Lake Parkway extension.

Attachment 5 (continued)

Table B-2

**POTENTIAL IMPACTS OF LAKE PARKWAY EXTENSION
BETWEEN EDGERTON AVENUE AND STH 100**

Evaluation Measure	Recommended Lake Parkway Extension
Right-of-Way Impacts	
Acquisitions/Relocations	
• Residential Structures	1
• Commercial Structures	0
• Institutional Structures	0
• Acres	118
Primary Environmental Corridors (acres)	41
Secondary Environmental Corridors (acres)	0
Isolated Natural Resource Areas (acres)	0
Wetlands (acres)	27
Prime Agricultural Land (acres)	0
Park/Recreational Land—Oak Creek Parkway (acres)	20
Disruptions ^a	
Residential Units	56
Commercial/Industrial Structures	12
Institutional Structures	0

^a A “disruption” is defined as any residential unit, or commercial or institutional structure located within about 200 feet of the right-of-way required for the Lake Parkway extension.

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Attachment 5 (continued)

o Floodplain

- The Lake Parkway extension would cross the floodway of the Oak Creek at three locations and an unnamed tributary located near Grange Avenue at one location, and the jughandle ramp, which would provide access to the Lake Parkway extension at College Avenue, would potentially cross the floodway of the Mitchell Field Drainage Ditch at one location.
 - The floodway is the channel of a waterway, and those portions of the floodplain adjoining the channel required to carry the discharge during a 100-year flood event.
 - To avoid impacting the floodway, it is anticipated that the Lake Parkway extension and jughandle ramp would be built on structures over the floodway areas.
- The Lake Parkway extension is estimated to impact about 34.2 acres of floodfringe area.
 - The floodfringe is the area outside of the floodway that is estimated to be covered with flood water during a 100-year flood event.
 - Per Wisconsin Administrative Code:
 - o Adequate floodproofing measures would be required for the Lake Parkway extension within the floodfringe areas.
 - o The Lake Parkway extension would need to be designed to be compatible with the local floodplain development plans.

o Parkland and Other Recreational Areas

- The Lake Parkway extension is estimated to impact about 19.5 acres of the Oak Creek Parkway.
- In addition, the Lake Parkway extension is estimated to impact 1.3 acres of an existing conservation easement between the City of Oak Creek and the Milwaukee Metropolitan Sewerage District (MMSD) on a parcel owned by the City just north of Ryan Road between Pennsylvania Avenue and the UPR right-of-way.

Attachment 5 (continued)

- The existing conservation easement prohibits the construction of a roadway on the parcel. However, the parcel may be condemned through eminent domain to allow the construction of Lake Parkway extension through the parcel.
- The Lake Parkway extension is also estimated to impact 12.1 acres of land owned by MMSD that was purchased for conservation purposes.
- **Prime Agricultural Land**
 - The Lake Parkway extension will not require acquisition of any designated prime agricultural lands.
 - The Lake Parkway extension is estimated to require acquisition of 44.3 acres of existing agricultural land. About 22.1 acres are lands planned for urban development, and the remaining 22.2 acres are located within the primary environmental corridor.
- **Critical Species Areas**
 - The Lake Parkway extension is estimated to impact 1.7 acres of an area identified for potential expansion of the Bluestem Goldenrod, which is designated as a State endangered plant. However, the Bluestem Goldenrod is not currently found in this area.
 - Therefore, the Lake Parkway extension would not be expected to directly impact the Bluestem Goldenrod at the location of the potential alignment.
- **Utility Impacts**
 - We Energies, American Transmission Company, the MMSD, and West Shore Pipelines have utilities within the We Energies right-of-way that is adjacent to the UPR rail line between Layton Avenue and Forest Hill Avenue. South of Forest Hill Avenue, the We Energies right-of-way diverges to the east away from the UPR right-of-way.
 - We Energies-Electric
 - Between Edgerton Avenue and Rawson Avenue – Lake Parkway extension would potentially impact, and require the relocation of,

Attachment 5 (continued)

existing electric distribution lines located within the We Energies right-of-way.

- Between Rawson Avenue and Forest Hill Avenue – Lake Parkway extension would be located outside of the We Energies right-of-way, and would avoid significantly impacting the existing electric facilities within the utility right-of-way.
- We Energies-Gas
 - Between Edgerton Avenue and Rawson Avenue – Lake Parkway extension would potentially impact, and potentially require the relocation of, existing underground gas lines and four regulator/valve stations.
 - Rawson Avenue and Forest Hill Avenue – Lake Parkway extension can be located outside of the We Energies right-of-way to avoid significantly impacting existing gas facilities within the utility right-of-way.
- American Transmission Company (ATC)
 - Between a point 1,000 feet north of College Avenue and Rawson Avenue – Lake Parkway extension would potentially impact, and require the relocation of, ATC's existing double-circuit, 138 kV electric transmission lines.
 - ATC staff indicated that a narrower than desired easement for their transmission lines between the UPR rail line and the Lake Parkway extension may be feasible. However, ATC staff provided a list of possible concerns and issues:
 - ATC would need to coordinate any maintenance or improvement work to their lines with the Wisconsin Department of Transportation and the UPR.
 - Relocating the transmission lines may affect the need and location of relocation of other utilities' facilities within the We Energies right-of-way.
 - ATC would need to acquire an easement from UPR.

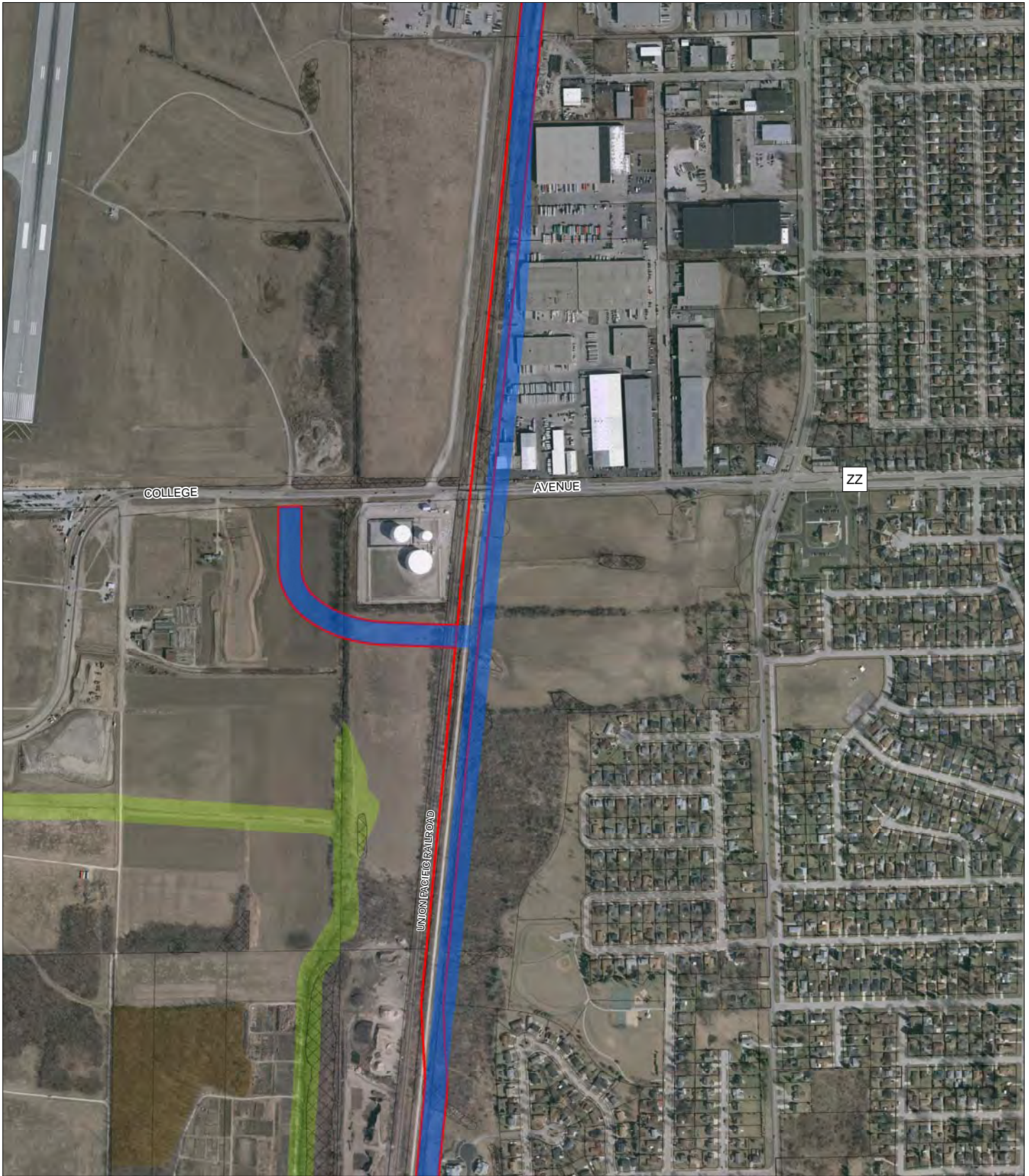
Attachment 5 (continued)

- Relocating the transmission lines would need to follow Federal Aviation Administration and Milwaukee County height restrictions along General Mitchell International Airport.
 - The relocated transmission lines would need to be constructed to maintain adequate clearance of lines above potential structures at and south of College Avenue.
 - Protective barriers would be needed along the Lake Parkway extension at the base of ATC poles.
- Should a narrower than desired ATC easement not be feasible to allow both the relocated ATC transmission lines and the Lake Parkway extension to be located within the UPR and We Energies right-of-way:
- The transmission lines could be buried. However, burying the lines would be undesirable due to:
 - Higher cost (potentially 20 times higher than relocating on overhead poles),
 - Difficult to maintain,
 - Need for higher capacity lines, and
 - Need for additional time for design and construction.
 - The Lake Parkway extension could be located partially outside the We Energies right-of-way between a point 1,000 feet north of College Avenue and Rawson Avenue to potentially avoid impacting existing ATC transmission lines, as shown on Map B-2. The west edge of the Lake Parkway right-of-way is located along the line of existing ATC transmission poles and lines.

Attachment 5 (continued)

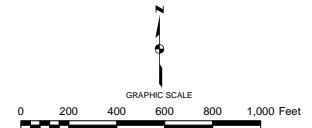
Map B-2

POTENTIAL ALIGNMENT OF LAKE PARKWAY EXTENSION IF NECESSARY TO AVOID AMERICAN TRANSMISSION COMPANY TRANSMISSION LINES BETWEEN A POINT ABOUT 1,000 FEET NORTH OF COLLEGE AVENUE AND RAWSON AVENUE



- POTENTIAL RIGHT-OF-WAY FOR LAKE PARKWAY EXTENSION IF NECESSARY TO AVOID AMERICAN TRANSMISSION COMPANY TRANSMISSION LINES
- PREFERRED RIGHT-OF-WAY FOR LAKE PARKWAY EXTENSION

- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL RESOURCE AREA
- WETLANDS



Attachment 5 (continued)

- Avoiding impacting the ATC transmission lines would reduce the estimated cost of utility relocation by about \$1.5 to \$2.8 million by potentially eliminating the need to relocate the existing ATC transmission lines, and also potentially We Energies gas facilities, between a point 1,000 feet north of College Avenue and Rawson Avenue.
- However, locating the Lake Parkway extension outside of the We Energies right-of-way to avoid impacting the ATC transmission lines would be undesirable because it would:
 - Require the acquisition of about 9.9 acres of land outside of the We Energies right-of-way (3.6 acres of commercial and industrial land, 5.7 acres of the proposed U.S. Postal Service site, and 0.6 acres of residential land);
 - Require the acquisition or relocation of 3 existing commercial buildings and potentially disrupt the operations of the businesses impacted; and
 - Add about \$6.5 million in right-of-way acquisition costs and \$0.5 million in construction costs.
- Between Rawson Avenue and Forest Hill Avenue – Lake Parkway extension can be located outside of the We Energies right-of-way, and would avoid significantly impacting existing ATC facilities within the utility right-of-way.

Attachment 5 (continued)

- Milwaukee Metropolitan Sewerage District (MMSD)
 - Between Edgerton Avenue and Rawson Avenue – Lake Parkway extension may potentially be constructed above four existing buried 16-inch pipes, should MMSD be able to maintain access to these pipes from the surface.
 - Between Rawson Avenue and Forest Hill Avenue – Lake Parkway extension can be located outside of the We Energies right-of-way, and would avoid significantly impacting existing MMSD facilities within the utility right-of-way.
- West Shore Pipeline
 - From Layton Avenue to about 650 feet south of Layton Avenue, the Lake Parkway extension may impact an existing idle petroleum pipeline by implementation of a southbound on-ramp to the Lake Parkway extension.
 - From about 650 south of Layton Avenue to a point midway between College Avenue and Rawson Avenue, the pipeline is west of the UPR rail line and would not likely be impacted by the Lake Parkway extension.
- **Other Potential Issues**
 - Impacts of proximity of Lake Parkway extension to existing at-grade railroad crossings:
 - Based on the availability of adequate land at most roadway crossings of the Lake Parkway extension, it is anticipated that none of the at-grade intersections and ramps of the grade-separated interchanges are anticipated to be located less than the minimum ideal distance of 125 feet from existing at-grade railroad crossings, per the Wisconsin Department of Transportation's Facilities Design Manual.
 - There would not be adequate separation between the UPR rail line and an at-grade intersection or a grade-separated interchange of the Lake Parkway extension at College Avenue, due to the existing and planned development adjacent to the We Energies right-of-way. However, the provision of the

Attachment 5 (continued)

jughandle ramp at College Avenue allows an adequate separation from the existing UPR rail line.

- Impacts to General Mitchell International Airport (GMIA):
 - The Lake Parkway extension would need to be constructed to follow Federal Aviation Administration (FAA) and Milwaukee County height restrictions for new structures built along and near GMIA.
 - FAA would need to review and approve the construction of any structure that could affect the navigable airspace.
 - Milwaukee County has an ordinance restricting the height of new facilities adjacent to GMIA.
 - Height restrictions are 35 feet above existing ground adjacent to GMIA, and are higher further away from GMIA.
 - A variance to the ordinance could potentially be granted by Milwaukee County should FAA approve the construction of a new facility.
 - Five locations of potential concern along GMIA were identified and analyzed by SEWRPC staff:
 - 300 feet north of Grange Avenue, where two runways converge;
 - At Grange Avenue, where the Lake Parkway extension would overpass the roadway;
 - 1,700 feet north of College Avenue, where an east-west runway is planned;
 - At College Avenue, where the Lake Parkway extension would overpass the roadway; and
 - 850 feet north of College Avenue, where the jughandle ramp would cross the existing UPR rail line.
 - Analysis by SEWRPC staff did not identify any height restriction issue that would make constructing the Lake Parkway extension infeasible.

Attachment 5 (continued)

- Ultimately, the implementing agency (WisDOT) would need to submit plans during preliminary engineering and environmental impact study for FAA review and determination of whether the Lake Parkway extension can be built along and near GMIA.
- Per FAA requirements, the Lake Parkway extension would need to be constructed in a manner that would not attract wildlife.
 - This could affect the location and type of stormwater management facilities and landscaping features that could be provided adjacent to GMIA.
- Impacts to 128th Air Refueling Wing of the Wisconsin Air National Guard resulting implementation of the Lake Parkway extension:
 - Three areas of potential concern were identified by 128th Air Refueling Wing representatives:
 - Potential effect of Lake Parkway extension along Grange Avenue.
 - Implementation of the Lake Parkway extension is not anticipated to require the acquisition of any land owned by the 128th Refueling Wing intended for development.
 - Need to maintain security of existing and future facilities.
 - Where the Lake Parkway extension would be elevated adjacent to their facilities, 128th Air Refueling Wing Representatives desire the use of barrier walls along the extension.
 - Need for suitable locations for secured access to their facilities.
 - 128th Air Refueling Wing is currently planning to move their existing secured gate along Grange Avenue to just west of Pennsylvania Avenue.
 - Lake Parkway extension (along with the existing UPR rail line) would be behind the relocated secured gate.
 - Secured gate could also be relocated to other existing GMIA entrances located at College Avenue and Layton Avenue.

Attachment 5 (continued)

- WisDOT should work with the 128th Air Refueling Wing and GMIA during preliminary engineering and environmental impact study to accomplish the appropriate exchange of land to allow the secured access to the 128th Air Refueling Wing facilities to be relocated to College Avenue and Layton Avenue and the secured access at Grange Avenue to be closed. This would allow the Lake Parkway extension to be constructed at-grade with cul-de-sacs provided on Grange Avenue on each side of the extension.
- Impacts on proposed new U.S. Postal facility to be located southwest of the intersection of Pennsylvania Avenue and College Avenue resulting from implementation of the Lake Parkway extension:
 - The alignment of the Lake Parkway extension is located within the UPR rail and We Energies right-of-ways along the property of the proposed new U.S. Postal facility, and is not expected to have a direct impact on the proposed facility.
 - The access to the Lake Parkway extension on College Avenue would be via a jughandle ramp that would intersect College Avenue west of the UPR rail line, and is not expected to affect the proposed entrances to the proposed new U.S. Postal facility.
- Impacts to access of adjacent businesses and residences located along roadways intersecting the Lake Parkway extension:
 - SEWRPC staff identified properties that may have reductions in access to allow for the provision of safe and adequate access to the Lake Parkway extension.
 - The access of six properties would potentially be reduced to right-in and right-out access due to the closing of existing median openings or the need for medians for the provision of left-turn lanes (one on College Avenue, three on Drexel Avenue, and two on Puetz Road).
 - Four properties that currently have two driveways may potentially be required to reduce their access to one driveway (one on College Avenue, one on Rawson Avenue, one on Drexel Avenue, and one on Puetz Road).
 - Due to portions of their property potentially being acquired for implementation of the Lake Parkway extension, two properties may

Attachment 5 (continued)

potentially be required to relocate their existing driveway (one on Rawson Avenue and one on Drexel Avenue).

- In addition, WisDOT may restrict new access onto crossing roadways within 1,000 to 1,320 feet from the ramps of grade-separated interchanges.

3. Costs

- **Capital Costs (Year 2010 Dollars)**

- The estimated capital costs for the potential Lake Parkway extension between Edgerton Avenue and STH 100 is provided in Table B-3.

Table B-3

**ESTIMATED CAPITAL COSTS FOR THE POTENTIAL LAKE PARKWAY EXTENSION
BETWEEN EDGERTON AVENUE AND STH 100**

Item	Capital Costs
Construction ^a	\$192.8 million
Right-of-Way ^b	5.7 million
Utility Relocation ^b	8.7 million
Total	\$207.2 million

^a Construction costs include the estimated costs for roadway construction (including interchanges, bridges, traffic signals, storm sewer, retaining walls, earthwork, restoration, and wetland mitigation) and engineering and contingencies.

^b Right-of-way acquisition and highway easements within utility right-of-way are included in the capital cost estimates for right-of-way. The estimated costs to relocate any existing utility facilities, including gas lines, electric distribution lines, and electric transmission line poles and towers, are included in the capital cost estimates for utility relocation.

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