Transport 2020

Environmental Impact Statement and New Starts Application

Transit Supportive Land Use Report

February 2007

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF FIGURES

LIST OF TABLES

THIS DOCUMENT CONTAINS ONLY THE INTRODUCTION AND SECTION A OF THE TRANSIT SUPPORTIVE LAND USE REPORT.

FOR ALL OTHER SECTIONS, PLEASE REFER BACK TO THE PUBLICATIONS TAB AT WWW.TRANSPORT2020.NET.

INTRODUCTION

Purpose of the Report

Transport 2020 is a study of transportation improvement alternatives for the Dane County/ Greater Madison Metropolitan area. The first phase of the study, completed in 2002, evaluated a number of options to meet the future transportation needs of the region ranging from highway expansion to new light rail service. At the conclusion of that phase, a Locally Preferred Alternative (LPA) was identified which recommended a commuter rail system supported by expanded bus service and park-and-ride lots.

The study is in its second phase which involves the preparation of a Draft Environmental Impact Statement (DEIS) and New Starts Application to the Federal Transit Administration (FTA). An assessment of the transit supportive character of the proposed commuter rail stations through an analysis of existing land use and development patterns and development regulations and policies, is an important component of the New Starts application.

This Transit Supportive Land Use Report is an analysis of existing conditions and current plans and policies affecting development patterns within the proposed transit corridors in relation to the New Starts criteria, described later in this section. Based on this analysis and a real estate market study completed to assess future development potential, the Report also includes key recommendations that could increase the transit supportive character of the proposed transit corridors and, potentially improve their ranking for transit supportiveness based on the New Starts criteria. The recommendations focus on changes to existing land use policies and planning practices to improve the transit supportive environment within the study area

New Starts Criteria

In its evaluation of the land use affecting potential New Starts, the FTA considers the following transit supportive land use categories and factors:[1]

1. Existing Land Use

2. Transit Supportive Plans and Policies, including the following factors:
   - Growth management
   - Transit supportive corridor policies
   - Supportive zoning regulations near transit stations
   - Tools to implement land use policies

1 Table 3: Land Use Rating Categories, Factors, and Supporting Factors, *Guidelines and Standards for Assessing Transit supportive Land Use, May 2004,* published by the Federal Transit Administration, Office of Planning.

3. Performance and Impacts of Policies, including the following factors:
   - Performance of land use policies
   - Potential impact of transit project on regional land use

4. Other Land Use Considerations, including exceptional environmental, historic or other factors, if applicable

The FTA applies these criteria to evaluate candidate transit improvement projects seeking federal funding assistance under the New Starts program. Funding for New Starts is an extremely competitive process with several projects from across the nation, seeking funds. Therefore, the extent to which a project can demonstrate transit supportive land uses and policies can improve its chances for receiving funding support.

Methodology

This transit supportive land use report has been prepared based on an analysis of existing conditions and policies affecting each station area within the alternative transit corridors. For the purpose of this analysis, station area is defined as the area encompassing a half-mile radius around a proposed station. A half-mile radius, which represents a comfortable ten-minute walking distance from the station, is generally the walk-access ridership base for a station and is also the service area considered as a part of the New Starts criteria.

The following steps were undertaken in preparation of the report:

- Existing Land Use and Development Patterns – Principal data sources included:
  - Year 2000 existing land use data from Dane County (latest available)
  - Existing conditions analysis and maps included in the comprehensive and neighborhood plans of the cities of Madison and Middleton
  - Bus route maps from Madison Metro
  - Field reconnaissance by the consulting team

  Information obtained from these data sources was supplemented by field surveys to develop an understanding of existing land uses and development patterns within the station areas. Besides existing land use, this included an analysis of access and circulation patterns in the station areas including the street network and major vehicular, pedestrian and bus routes and the urban design conditions including an assessment of pedestrian facilities.

- Land Use Workshops – A series of meetings and workshops were held over two days with local planners and developers to get their feedback regarding existing conditions and future development potential within the station areas. These included meetings with city, county and agency land use and planning staff and with local developers who have knowledge and/or development interests in the study area. The study team also

conducted a tour of the study area and presented their findings based on the tour and the meetings to the Implementation Task Force (ITF).

- **Current Plans and Policies** – In this step, all the current official land use plans, policies and development regulations for units of government within the proposed transit corridors were collected and reviewed to estimate the extent of transit- supportive conditions currently existing, and proposed for the future. The review focused on future plans for the station areas including type and intensity of proposed development, parking management, pedestrian and bike improvements, and design guidelines to create a pedestrian friendly environment. Review of current policies focused on supportiveness of zoning regulations for creating dense, mixed-use, pedestrian-oriented environments with reduced parking requirements near transit stops.

  Plans and policies for Dane County, Madison including its neighborhood plans, Middleton, Shorewood Hills, and the University of Wisconsin at Madison were also reviewed.

- **Real Estate Market Analysis** – A real estate market analysis was completed for the transit corridors to estimate the future residential, commercial and office development potential over the next 15 years (by Valerie Kretchmer and Associates). During this analysis, several interviews were conducted with key persons including representatives from the municipalities, Dane County, the State government, the University as well as property owners, developers and realtors. These interviews helped in gaining an understanding of real estate development trends and preferred development patterns within the region.

This report presents the assessment of transit supportiveness of the proposed stations and the corridors in two formats:

- A summary table which ranks the stations and corridors relative to the New Starts criteria, and
- A narrative highlighting existing characteristics and policies that influence the transit supportive character of the station areas as outlined in the New Starts criteria, and implementation recommendations that could potentially result in a more favorable New Starts ranking. The implementation recommendations are generally organized as planning initiatives, recommended policy updates and improvement projects.

Report Organization

The report is organized in three main sections:

1. **Section A: Executive Summary** – This includes an overview of the project conditions, a summary of the real estate market analysis (full report is included in the Appendix), a ranking of the transit supportive land uses in the station areas and, a brief explanation of the ranking results.

2. **Section B: Transit Supportive Land Use – Conditions and Policies in the Corridors and Station Areas** – This section includes a detailed explanation of existing conditions and policies for each corridor and its stations providing the rationale for the rankings in the summary table in Section A. The existing conditions analysis is followed by recommendations that could potentially improve the current ranking of the stations under the New Starts program. Also included in this section is an assessment of the existing growth management programs and strategies within the region.

3. **Appendices** – The Appendices include the complete real estate market analysis report and a summary of the developers' workshop. The workshop summary includes presentation materials and notes from presentations to the Implementation Task Force Committee.

SECTION A. EXECUTIVE SUMMARY

A-I. Overview of Corridor Conditions

The Transport 2020 study area is centered on the 13-mile railroad corridor extending from the City of Middleton on the west through the University of Wisconsin campus and downtown Madison to Madison's east side, near its border with the City of Sun Prairie. Two branches, one on the southwest side serving the West Towne area, and another serving the Dane County Regional Airport, are also included in the study area (See Figure 1).

The study area has been organized into, eight "opportunity areas" for transit service. These subareas represent logical station clusters and submarkets of the community's greater real estate market. Opportunity areas, (Figure 1) include:

1. Middleton
2. Southwest
3. Hill Farms
4. University
5. Capitol
6. East Isthmus
7. East Towne
8. Airport

The opportunity areas have widely varying land use and density patterns. The highest densities and pedestrian friendly areas are found in the corridors in on near the City center such as the University and Capitol corridors. The corridors on the fringes, such as the Southwest and the East Towne corridors, have a comparatively low-density, auto-oriented development pattern. However, considerable future growth is forecasted for these areas due to the proximity to regional highways. This future growth pattern presents an opportunity to intensify these corridors and create a more transit supportive environment through careful planning and decision making.

Existing and Forecasted Population Density

Population densities within the half-mile area surrounding the proposed stations are an important measure of transit supportive land use in the FTA New Starts criteria. Higher population densities imply a greater potential ridership base, increasing the project's effectiveness and chances of securing federal funding. Figures 2 and 3 illustrate the Year 2000 population density and the Year 2030 forecasted population density respectively for the study area by Traffic Analysis Zones (TAZs). Both the Year 2000 and the Year 2030 forecast data is based on information provided by the Madison Area Metropolitan Planning Organization (MAMPO). Figure 4 illustrates the change in population over

the forecast period, from 2000 to 2030.

Population densities illustrated in Figures 2 and 3 have been categorized and mapped according to the FTA ranking criteria.[2] These maps provide an indication of where sufficient population densities exist today within the study corridor (medium to high density) and the impact of the growth scenario under the current MPO forecast. While several of the corridors exhibit the entire density range from "low" to "high", the ones with the large areas under higher densities, have higher ridership potential. The highest existing population densities are within the University, Capitol and the East Isthmus corridors. It is evident from Figures 3 and 4 that under the current MPO forecast, population growth is expected in the downtown areas as well as the westside and eastside neighborhoods located close to the major highways (Beltline Highway on the west and Interstate Highways 90/94 on the east).

Even though the MPO forecast shows increasing population within the corridor (except for the area near the Airport), the increases are generally modest and do not affect the FTA ranking to a great extent. For the purposes of this study, it is important to view the MPO forecast in conjunction with the real estate market analysis, which explicitly assumes the presence of commuter rail transit, and is presented below.

2 Federal Transit Administration (FTA) specifies ranking for population density within the half-mile station areas in Table 5: Quantitative Element Rating Guide, *Guidelines and Standards for Assessing Transit supportive Land Use*. The population density ranges are as follows: Low Density = fewer than 3,333 people/square mile, Low-Medium Density = between 3,333-6,667 people/square mile, Medium Density = 6,667-10,000 people/square mile, Medium High Density = 10,000-15,000 people/square mile and, High Density = more than 15,000 people/square mile.

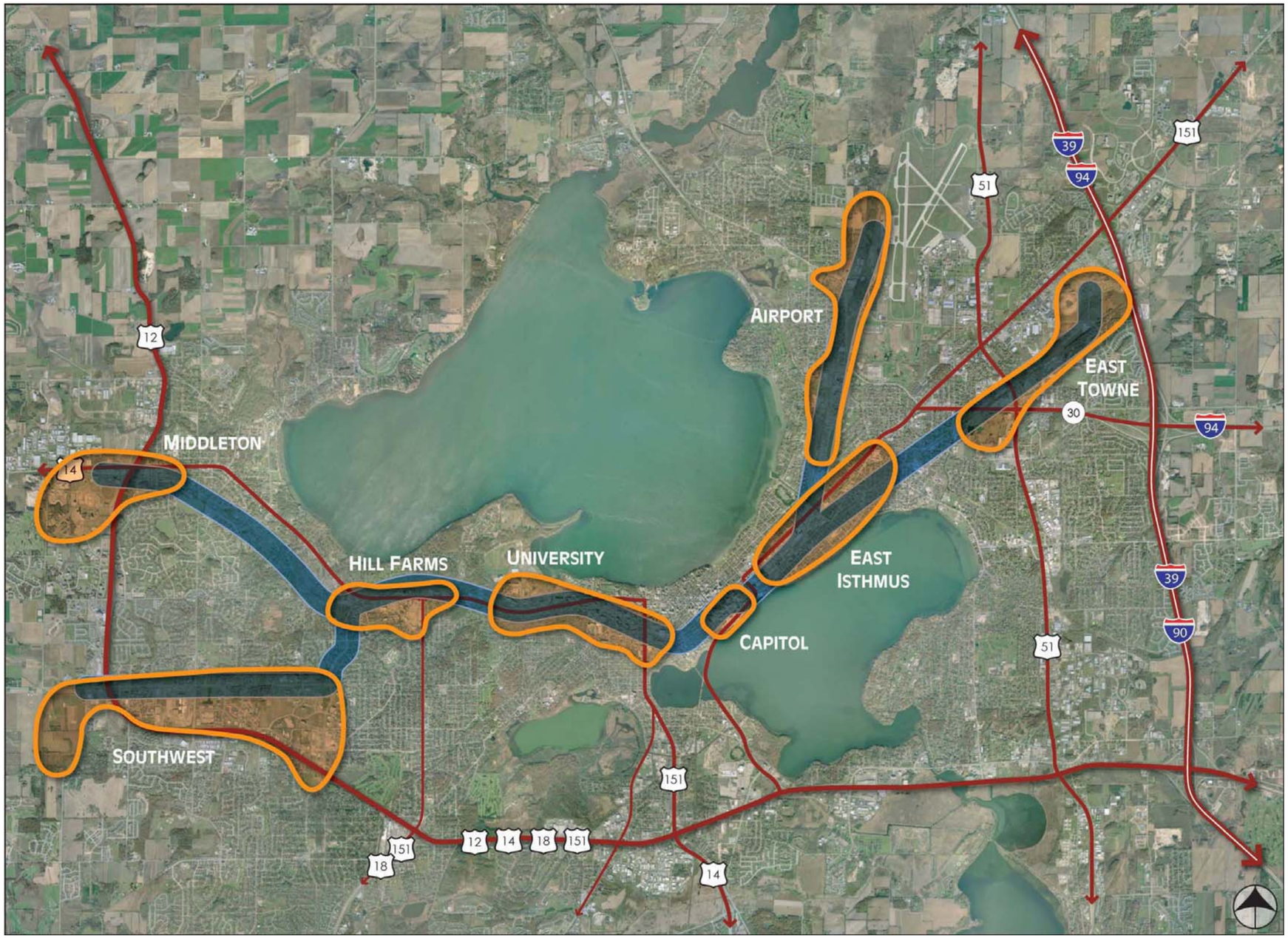

Figure 1 - Opportunity Corridors

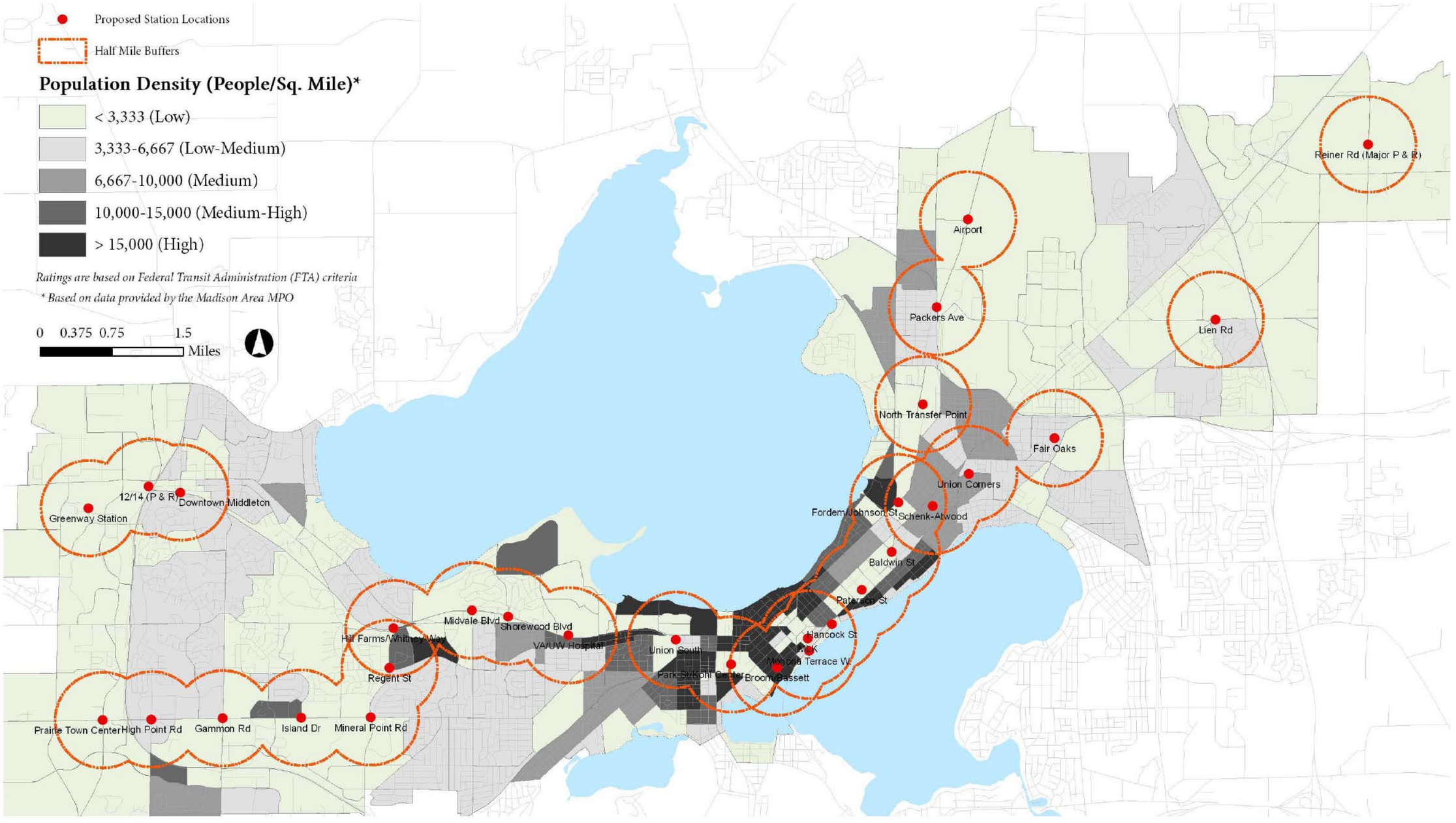

Figure 2 - Year 2000 Population Density

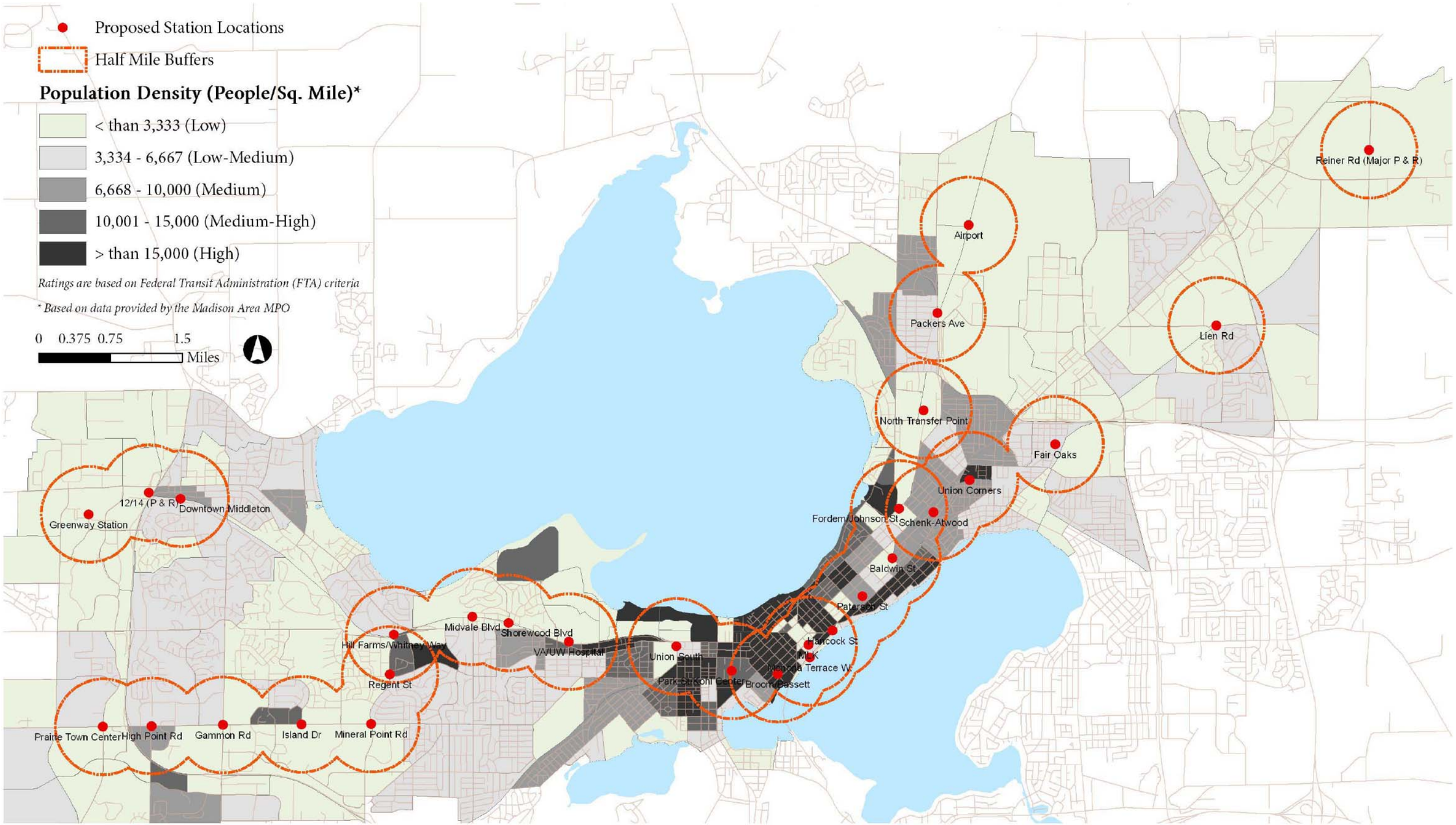

Figure 3 - Year 2030 Population Density

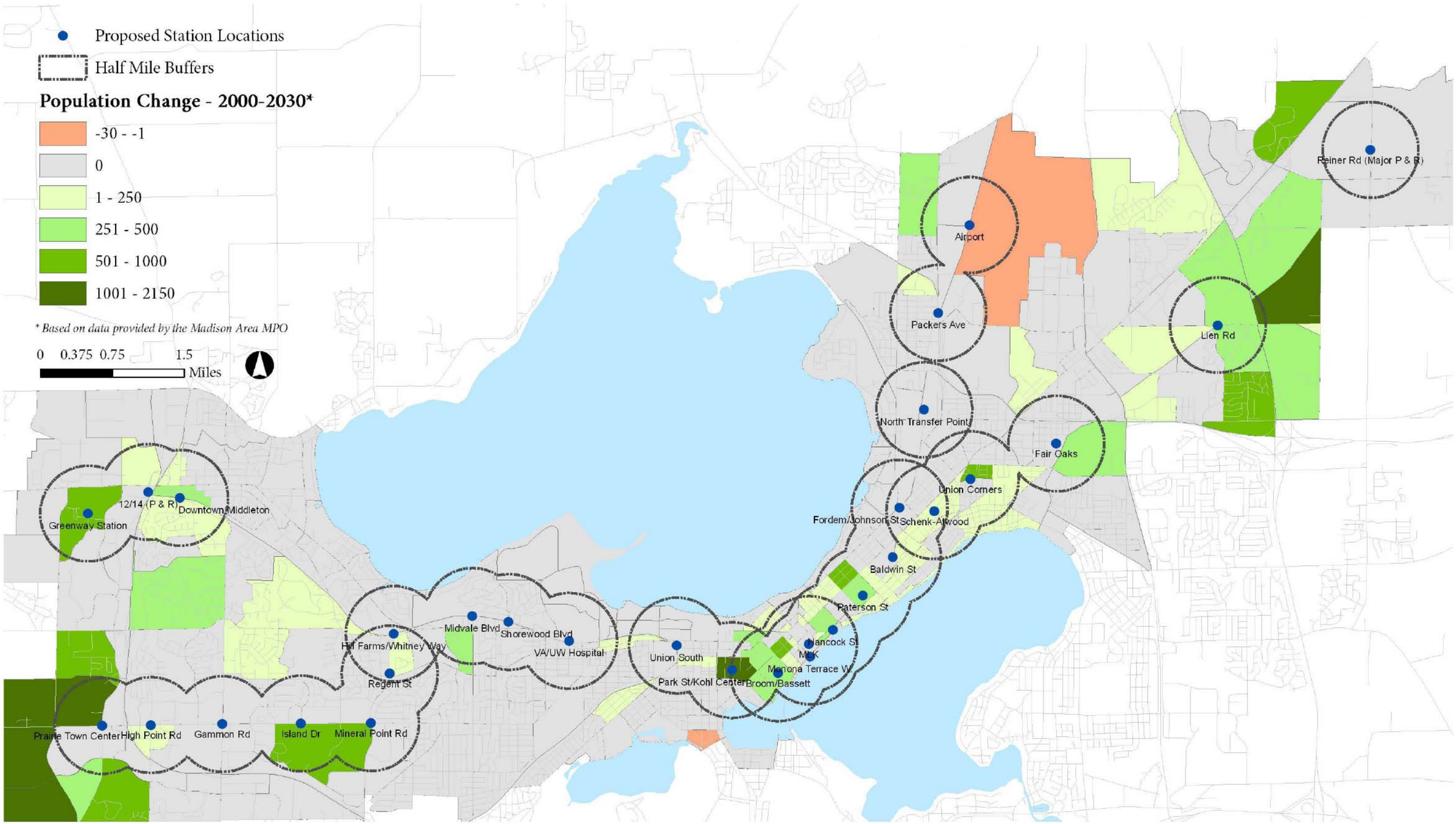

Figure 4 - Population Change, 2000-2030

A-II. Market Analysis: Overview and Summary Results

A valuable step in the process is to understand where future real estate investment will occur in the corridor. The exercise lends an understanding of how the market is expected to behave in the near term for preferred locations for real estate investments. Comparisons can then be made between current land use policies, and the 2030 forecast.

Valerie Kretchmer and Associates (VSKA) has completed a real estate market analysis for the corridor area, which is included in its entirety in the Appendix. A summary of the analysis, which outlines the market potentials for household growth and new office and retail space by Opportunity Corridor Area, is presented in Table 1.

Also included as Table 2 is a comparison of the VSKA market analysis with the MPO 2030 forecast. It is important to understand that the market analysis, takes into account the increased desirability of the corridors for attracting development with commuter rail service, and therefore often shows higher development potentials than that forecasted by the MPO, which did not assume any new transit service.

Table 1 - Projected Residential, Office and Retail Development Potential from 2005 to 2020, Corridor Opportunity Areas

	East Towne	Airport	East Isthmus	Capitol	University**	Hill Farms***	Southwest	Middleton	Total
Dwelling Units									
2005-2010	40	10	100	150	200	300	250	50	
2010-2015	40	25	300	200	200	300	350	100	
2015-2020	40	25	200	200	200	300	400	100	
Total Units	120	60	600	550	600	900	1,000	250	4,080
Population (1)	272	136	1,362	1,249	1,362	2,043	2,270	539	9,233
Office Space (Square Feet)*									
2005-2010	25,000	25,000	100,000	250,000	125,000	50,000	200,000	50,000	
2010-2015	25,000	25,000	100,000	250,000	125,000	350,000	400,000	50,000	
2015-2020	25,000	25,000	100,000	250,000	125,000	200,000	500,000	25,000	
Total	75,000	75,000	300,000	750,000	375,000	600,000	1,100,000	125,000	3,400,000
Office Employment (2)	375	375	1,500	3,750	1,875	3,000	5,500	625	17,000
Retail Space (Square Feet)									
2005-2010	150,000	10,000	50,000	50,000	50,000	75,000	100,000	50,000	
2010-2015	50,000	20,000	75,000	50,000	50,000	50,000	100,000	75,000	
2015-2020	50,000	20,000	75,000	50,000	50,000	50,000	100,000	75,000	
Total	250,000	50,000	200,000	150,000	150,000	175,000	300,000	200,000	1,475,000
Retail Employment (3)	500	100	400	300	300	350	600	400	2,950

* Office space includes both private and public sector space

** Space in the University Area includes University replacement housing but not classroom and special purpose buildings

*** Office space in Hill Farms includes the space that the Department of Transportation will re-build at its current location

1: Average household size in 2020 is assumed to be 2.27 people for the City of Madison, and 2.15 people for the City of Middleton

2: Average square feet of office space per office worker is assumed to be 200 square feet

3: Average square feet of retail square feet per worker is assumed to be 500 square feet

Source: Valerie S. Kretchmer Associates, Inc.

Table 2 - Comparison of Increase in Household and Employment, Corridor Opportunity Areas

Opportunity Area	Household Increase		Service/ Office Employment Increase		Retail Employment Increase	
	2030 Forecast	2020 Market Study	2030 Forecast	2020 Market Study	2030 Forecast	2020 Market Study
East Towne	317	120	345	375	386	500
Airport	77	60	523	375	12	100
East Isthmus	1,716	600	470	1500	127	400
Capitol	2,787	550	1,219	3750	153	300
University	1,024	600	1,105	1875	78	300
Hill Farms	158	900	59	3000	95	350
Southwest	964	1,000	6,575	5500	454	600
Middleton	387	250	737	625	386	400
Total	7,430	4,080	11,033	17,000	1,691	2,950
Average Annual Increase*	248	272	368	1,133	56	197

Source: Cambridge Systematics; Valerie S. Kretchmer Associates, Inc.

* The 2030 MPO Forecast is for a 30 year time period from 2000 to 2030, the 2020 Market Study projections are for a 15 year time frame from 2005 to 2020.

A-III. Transit Supportive Land Use Ranking Approach

As mentioned earlier, all the proposed stations within the transit corridors were analyzed and assigned ranks based on their transit supportive character in relation to the New Starts criteria.

A five point ranking system was used for this analysis; a brief explanation of the ranking criteria is presented below. The ranks help in assessing the overall transit supportive environment in a station area based on existing conditions and policies.

Criteria used to establish station area rankings:
(Note: Rankings are based on a scale of 1 to 5; 1 indicating a "low" rank, 3 indicating a "medium" rank and 5 indicating a "high" rank.)

- Station area population densities
  - According to FTA parameters
- Assessment of supportiveness of existing land uses
  - Low – mostly lower-density residential uses primarily within the quarter-mile station area (1)
  - Medium – a mix of residential, commercial and/or employment uses within the half-mile station area at a modest density (3)
  - High – strong mix of uses, particularly a high percentage of residential uses within the half-mile station area (5)
- Existing street network connectivity – access patterns
  - Low – street network density is low; broken/unconnected network within the half-mile station area; limited sidewalks (1)
  - Medium – street network is not high density; network is in place but circuitous/irregular; minor sidewalk and access issues (3)
  - High – street network density is high; network is more or less on a continuous grid; complete sidewalk system (5)
- Intermodal capability at station locations
  - No multimodal access is planned or available at the station area; only automobile accessibility is provided (1)
  - Bus service is planned for the station area; a sidewalk network is in place (3)
  - The station is already served by one or more bus routes; has strong bicycle and pedestrian connections to the surrounding neighborhood (5)

- **Supportive parking policies**
  - Supportive parking policies or regulations are absent (1)
  - Policies and recommendations for shared parking, structured parking, and/or reduced parking in place with evidence of impact in station areas (3)
  - Mixed use/reduced parking requirements; constraints on parking supply in place (5)

- **Extent to which there are properties subject to change for transit supportive uses**
  - Recently built or largely protected environment with minimal development/redevelopment opportunities foreseen (1)
  - Low to medium density development opportunities for varied land uses (3)
  - Opportunities for high density mixed used projects, especially within the half mile station area (5)

- **Degree to which current community / neighborhood plans support TOD**
  - Plans do not address TOD at that location (1)
  - Plans address TOD possibilities and the use mix in the area (3)
  - Plans provide clear direction in use mix, development patterns, access improvements, and development implementation (5)

- **Degree to which current zoning consistent with TOD and market**
  - Zoning regulations are completely inconsistent with market-oriented uses and encourages improper development pattern (1)
  - Zoning mix is appropriate for the area, relatively aligned with density opportunities (3)
  - Zoning has considered TOD needs in the area and specifically addresses station area uses, density, design and access (5)

- **Market / Economic support for development at station area**
  - Limited market support for residential, commercial, employment and mixed uses (1)
  - Relatively reasonable market support for two or more uses to in the station area (3)
  - Strong market support for identified uses (5)

- **Degree of alignment between market opportunities and plan recommendations**
  - Limited market support for residential, commercial, employment and mixed uses (1)
  - Relatively reasonable market support for two or more uses to in the station area (3)
  - Strong market support for identified uses (5)

A-IV. Transit Supportive Land Use Ranking Results

The results of land use ranking for all the proposed stations are presented in Table 3.

Table 3 - Land Use Conditions and Policies – Station Rankings

Corridor Area	Station	Transit Supportive Existing Land Use	Existing Street NetworkConnectivity	Intermodal capability	Supportive Parking Policies	Properties Subject to Change for Transit Supportive Uses	Degree to which current citywide/ neighborhood plans support transit	Degree to which current zoning supports Plan	Degree to which market appears to support development	Degree of alignment between market and plans	Summary Points	Average Station Ranking	Average Corridor Area Ranking
	Highway 12/14	3	2	3	4	4	5	4	4	5	34	3.8	
Middleton	Downtown Middleton	5	4	4	4	3	5	4	2	5	36	4.0	**3.9**
	Regent Street	4	3	3	2	1	1	5	3	1	23	2.6	
	Hill Farms/Whitney Way	4	3	3	3	5	4	2	5	5	34	3.8	
	Midvale Blvd.	4	3	4	3	5	5	3	5	5	37	4.1	
Hill Farms	Shorewood Blvd.	4	3	4	3	3	2	5	3	5	32	3.6	**3.5**
	UW/VA Hospital	5	4	4	5	4	5	4	5	5	41	4.6	
	Union South	5	4	4	5	5	5	4	5	5	42	4.7	
University	Park St./Kohl Center	5	4	4	5	3	5	4	2	4	36	4.0	**4.4**
	Broom/Bassett	5	5	5	4	4	5	3	4	4	39	4.3	
	MLK	5	5	5	4	4	5	3	4	4	39	4.3	
	Monona Terrace W.	5	5	5	4	4	5	3	4	4	39	4.3	
	Hancock St.	5	5	5	4	4	5	3	4	4	39	4.3	
Capitol	Paterson St.	3	4	5	4	5	5	1	5	4	36	4.0	**4.3**
	Baldwin St.	4	3	5	4	5	5	1	5	4	36	4.0	
	Schenk-Atwood	5	5	5	4	3	5	1	4	3	35	3.9	
	Union Corners	5	3	5	4	5	5	4	5	5	41	4.6	
East Isthmus	Fordem/ Johnson	3	2	5	3	3	5	3	4	3	31	3.4	**4.0**
	Fair Oaks	3	3	5	2	4	5	3	2	2	29	3.2	
	Lien Road	2	1	3	2	4	5	3	2	2	24	2.7	
East Towne	Reiner Road	1	1	1	1	1	1	4	1	1	12	1.3	**2.4**
	Prairie Town Center	2	2	2	2	5	3	3	5	3	27	3.0	
	High Point Road	4	2	2	2	1	1	3	5	3	23	2.6	
	Gammon Road	3	2	2	2	4	3	3	5	3	27	3.0	
	Island Dr.	3	2	2	2	4	3	3	5	3	27	3.0	
Southwest	Mineral Point Rd	3	2	2	2	2	1	3	5	3	23	2.6	**2.8**
	North Transfer Pt.	3	1	3	2	3	3	3	2	3	23	2.6	
	Packers Ave	3	2	3	2	3	3	3	2	3	24	2.7	
Airport	Airport	5	2	4	1	3	3	5	2	1	26	2.9	**2.7**

The composite scores for the opportunity areas are presented in Table 4.

Table 4 - Opportunity Corridor Composite Scores

East Towne	Airport	Southwest	Hill Farms	Middleton	East Isthmus	Capitol	University
2.4	2.7	2.8	3.5	3.9	4.0	4.3	4.4

Source: HNTB Corporation

A-V. Summary of Ranking Results

Tables 3 and 4 above indicate that several of the opportunity corridors, exhibit a fairly strong transit supportive environment, in terms of existing conditions as well as future plans and have the potential of achieving relatively high transit supportive ratings in the New Starts assessment. Yet these corridor areas continue to undergo redevelopment and are constantly evolving to meet the needs of a changing market. The redevelopment opportunities should be used to enhance the transit-oriented environment within the corridors while preserving their historic urban fabric, which gives them their unique characters

The East Towne, Airport and Southwest corridors, which include stations at the urban fringes of the City of Madison, do not currently provide a strong transit supportive environment. These areas have developed mostly on a suburban, auto-oriented pattern in contrast to the older neighborhoods of Madison that are traditionally mixed-use and pedestrian oriented. Considerable change would be required over time to make these corridors pedestrian-friendly and increase current densities to transit supportive levels. A proactive approach on the part of the City to promote infill and redevelopment in these areas and implement necessary streetscape improvements to increase pedestrian comfort and safety will be helpful in creating a more transit supportive environment.

The corridor-specific land use analysis presented in the following section provides recommendations that can be undertaken for each corridor to enhance their transit supportive character.