

TABLE OF CONTENTS

Acknowledgments.....	5
Chapter 1 : Introduction.....	6
1.0 Practicum Purpose	7
1.1 Goal Statement.....	7
1.2 Scope & Deliverables	7
1.3 History	7
1.4 The Corridor	9
1.5 Methodology.....	12
1.6 Key Players	12
1.7 Maps	13
1.8 Executive Summary.....	17
Chapter 2 : Socioeconomic Profile	18
2.1 Demographics	21
2.2 Economic.....	25
2.3 Housing	32
2.4 Summary.....	37
Chapter 3 : Market Analysis	38
3.0 Intro	39
3.1 Business Summary.....	39
3.2 Retail Market Potential.....	41
3.3 Restaurant Market Potential	43
3.4 Retail Goods and Services Expenditures.....	44
3.5 Retail Marketplace Profile.....	45
Chapter 4 : Streetscape, Roadway and Housing Inventory & Assessment.....	48
Parcel Map – Land Use	49
Zoning Map	50
4.0 Complete Streets Introduction	51
Block Maps – Land Use.....	52
4.1 Assessment Tool.....	53
4.2 Sidewalk / Walkway Conditions	55
4.3 Sidewalk Width.....	56

4.4 Obstructions (Continuity)	58
4.5 Handicap Accessibility	60
4.6 Signage / Wayfinding - Ped, Bike, Auto	62
4.7 Amenity Zone / Landscaping	64
4.8 Lighting.....	66
4.9 Bike Lanes.....	68
4.10 Traffic Flow (Lanes / Speed Limit)	70
4.11 Street parking	74
4.12 Housing Conditions	76
4.13 Setback	78
Chapter 5 : Commercial/Institutional/ Industrial Inventory & Assessment	81
5.0 Introduction.....	82
5.1 Assessment Tool.....	82
5.2 Existing/Future Land Use (Zoning)	83
5.3 Setback	84
5.4 Façade	86
5.5 Access Management (Off-street parking).....	88
Chapter 6 : Intersection Inventory and Assessment	90
6.1 Introduction.....	91
6.2 Assessment Tool.....	91
6.3 Delineation/Connection.....	92
6.4 Crosswalk Signal/Signage	92
Chapter 7: Stakeholder Input	101
Chapter 8: Recommendations.....	104
8.1 Vision of the Corridor	105
8.2 Recommendations.....	106
WORKS CITED.....	124
APPENDIX.....	125
Appendix A: Block By Block Analysis	126
Appendix B: Commercial/Institutional/ Industrial Property Analysis	141
Appendix C: Market Analysis	151

TABLE OF FIGURES

Figure 2-1: Geographic Area.....	20
Figure 2-2: 2000 Age Distribution.....	22
Figure 2-3: 2011 Age Distribution.....	22
Figure 2-4: 2000 Educational Attainment	24
Figure 2-5: 2011 Educational Attainment	25
Figure 2-6: Unemployment Rate	26
Figure 2-7: Main Sector Job Estimates	27
Figure 2-8: Industry.....	29
Figure 2-9: Poverty Rate	31
Figure 2-10: Percentage of Home Values per Price Index.....	35
Figure 2-11: Age of Housing Stock.....	36
Figure 4-1: Streetscape.....	56
Figure 4-2: Obstruction Score	58
Figure 4-3: Handicap Accessibility Score	60
Figure 4-4: Signage/Wayfinding Score	62
Figure 4-5: Amenity Zone/ Landscaping Score.....	64
Figure 4-6: Lighting Score	66
Figure 4-7: Bike Lanes Score.....	68
Figure 4-8: Street Parking Score.....	74
Figure 4-9: Housing Condition Score	76
Figure 4-10: Setback Score.....	78
Figure 5-1: Setback Score	84
Figure 5-2: Façade Score	86
Figure 5-3: Access Management Score	88

LIST OF TABLES

Table 2-1: Total Population	21
Table 2-2: Race Distribution.....	23
Table 2-3: Household Income	30
Table 2-4: 2000 Owner/Renter Occupied Housing	32
Table 2-5: 2007-2011 Owner/Renter Occupied Housing	33
Table 2-6: Owosso Home Ownership vs. Renter.....	34
Table 2-7: 2000 & 2011 Median value of Owner-Occupied Units	34
Table 3-1: Business & Employee Count.....	39
Table 3-2: Business & Employee Count By Industry	40
Table 3-3: One-Mile Retail Market Potential.....	41
Table 3-4: Three-Mile Retail Market Potential	42
Table 3-5: Five-Mile Retail Market Potential.....	42
Table 3-6: Tapestry Data	44
Table 3-7: MarketPlace Overview	45
Table 3-8: One-Mile MarketPlace Profile.....	46

Table 3-9: Three-Mile MarketPlace Profile	46
Table 3-10: Five-Mile MarketPlace Profile.....	47
Table 4-1: Sidewalk / Walkway Conditions	55
Table 4-2: Sidewalk width	57
Table 4-3: Obstructions (Continuity).....	59
Table 4-4: Handicap Accessibility Conditions	61
Table 4-5: Signage / Wayfinding Conditions.....	63
Table 4-6: Amenity Zone / Landscaping Conditions	65
Table 4-7: Lighting Conditions.....	67
Table 4-8: Bike Lane Conditions	69
Table 4-9: Traffic Flow	73
Table 4-10: Street Parking Conditions.....	75
Table 4-11: Housing Conditions	77
Table 4-12: Setback (Residential)	79
Table 5-1: Land Use	83
Table 5-2: Setback (Commercial, Industrial, Institutional).....	85
Table 5-3: Façade Conditions	87
Table 5-4: Access Management.....	89

ACKNOWLEDGMENTS

Our team would like to extend a special thank you to Adam Zettel and the City of Owosso Planning Department for their help and resources. We would also like to thank our professors Rex LaMore and Zenia Kotval for their guidance through this process.

This project is supported in part pursuant to the receipt of financial assistance to the MSU Center for Community and Economic Development from the State of Michigan Michigan State Housing Development Authority (MSHDA). The statements, findings, conclusions, and recommendations are solely those of the authors and do not necessarily reflect the views of any federal, state agency or Michigan State University.

CHAPTER 1 : INTRODUCTION

- 1.0 Practicum Purpose
- 1.1 Goal Statement
- 1.2 Scope
- 1.3 History
- 1.4 The Corridor
- 1.5 Methodology
- 1.6 Key Players
- 1.7 Maps
- 1.8 Executive Summary

1.0 PRACTICUM PURPOSE

The purpose of planning practicum is to prepare graduating Urban and Regional Planning students of Michigan State University for the professional planning world. Planning professionals act as clients and submit project proposals to the practicum professors. Student teams work with these clients to develop a project scope and the proper methods to complete it. These methods include, but are not limited to data collection, interviewing, field work, map making and report writing. Further, the students must analyze and interpret the data found and apply it based upon a thorough understanding of the conditions of the community. The students then become familiar with making recommendations regarding policy changes, funding and implementation strategies. Teams deliver results that will not only help the client complete the project, but also give each student the necessary tools to be a successful professional planner.

1.1 GOAL STATEMENT

Owosso's Washington Street Corridor area is bisected by a set of railroad tracks, and at one time was heavy in industrial uses and manufacturing. Since the decline of the industry there is need for revitalization and reinvestment in this corridor. Our goal is to enhance the corridor between Baker College and downtown Owosso by focusing on the built environment including connections, gateways, and the streetscape. The report seeks to create a sense of place capable of stimulating economic growth and building social equity in the target area.

1.2 SCOPE & DELIVERABLES

The Washington Street Corridor stretches from Baker College all the way North to the Shiawassee River. The corridor is a gateway to the downtown from the state highway M-71, and connects Baker College to the downtown. The area consists of residential, commercial, industrial and institutional uses. The deliverables of this project include a written planning document that provides an inventory and assessment of the assets and condition of the area and the existing uses. Based upon this inventory and assessment along with socio-economic and market data we performed an analysis, and provided recommendations for the corridor. Also included with the deliverables are a presentation and a large poster encompassing the project.

1.3 HISTORY

Shiawassee is a county in the State of Michigan, the sole county of the Owosso Micropolitan Statistical Area, and part of the greater Lansing Combined Statistical Area. In 1822, the U.S. Government employed Joseph Wampler, William Brookfield and parties to survey what is now known as Shiawassee County. The survey opened the way for land purchases. The county received its name from the Indians. It is said that the first fur trapper asked Indians for directions to the reservation and they answered in their own language "Shiawassee." It meant "the river straight ahead." The Shiawassee River has been called by this name since. The first pioneer families sent agents or family members ahead to purchase their land. And they had a hard time when they later traveled in small groups along the Shiawassee and Maple Rivers. Many lives were lost to the harshness of the wilderness. Those that survived are mainly small

towns and villages that serve a farming community or have become bedroom communities to Flint, Saginaw and Lansing. (Source: Migenweb)

The city of Owosso is the largest city in Shiawassee County in the Michigan State. The city is located on the eastern side of Owosso Township, but is politically independent from the township government. When the county was first surveyed the land was inhabited by Chief Wassa and his band of Chippewa Indians. The area was named for the chief with the original name being Owasso. In 1819, the area was first settled by Europeans. On February 15, 1859, Owosso was incorporated as a city with 1000 people. The town's first mayor was Amos Gould, a judge originally from New York.



First New Pavement in 1889 - Looking East on Main St. at Washington St.



Looking North on Washington St. from Comstock St. in about 1914

<http://www.shiawasseehistory.com/>



1.4 THE CORRIDOR

M-71 CORRUNA AVENUE

M71 is a state trunk-line highway in the Lower Peninsula of the State of Michigan. It serves as a connector between M-21 in Owosso to Interstate 69 (I-69) southwest of Flint. The highway runs along a rail line in a northwest-to-southeast direction in rural Shiawassee County connecting a few small towns along its path.



Source: Michigan Department of Information Technology, July 17, 2006

Major junctions	
West end:	 M-21 at <u>Owosso</u>
East end:	 I-69 near <u>Durand</u>

M71 was formed by July 1, 1919 as a spur route from M-21, which ran along Lytle Road, southerly to Durand. Around 1925, a realignment of M-21 produced changes in M-71. M-21 was rerouted to its current alignment between Owosso and Lennon, and M-71 took over the roadway between Owosso and Corunna. At the same time, M-71 was shifted to run through Vernon. A new section of M-71 was built parallel to the Ann Arbor Railroad between Durand and Corunna in 1938. And in late 1960 or early 1961, M71 was shortened one final time with the completion of the M-78 freeway (now I-69) in the area. At that time, the eastern terminus was shifted to the freeway interchange instead of the old route of M-78 along Lansing Road.

BAKER COLLEGE

Within a few years on either side of the turn of the twentieth century, two proprietary institutions of higher education were founded, sharing a common mission- to provide students with the skills needed for employment in the great industries of their times. In 1965, after half a century of separate but parallel existence, the two institutions came together under a single management group headed by Robert Jewell of Muskegon. The organization has flourished and is now known as the Baker College System, with more than 150 programs at 17 on-ground locations and an online college. Baker College of Owosso is the local college. In 1983, an Owosso branch of Baker Junior College was established on the recently acquired property of the former John Wesley College.

Right now, Baker College System is the largest independent college in Michigan and home to one of the largest online educational programs in the United States. For over a century, Baker has grown considerably from a college of 150 students in 1911 to over 35,000 students today. Baker College of Owosso is located just four blocks south of the busy downtown and is the beginning of our corridor study area.



Source: <https://www.baker.edu/current-students/owosso/>



STEAM RAILROADING INSTITUTE

The Steam Railroading Institute is located at 405 South Washington Street, Owosso. It is an organization dedicated to the preservation, restoration, and operation of historical railroad equipment and items. It operates a heritage railroad, which offers occasional excursions on-board one of their many trains such as: Pere Marquette 1225, Flagg Coal Co. 75 and Mississippian 76, which is currently under restoration.



Source: Steam Railroading Institute Website: <http://michigansteamtrain.com/sri/>

The Steam Railroading Institute is the product of the Michigan State Trust for railway Preservation Inc. For many years, the MSTRP centered on a single steam locomotive, former Pere Marquette Railway No. 1225. After 1225's retirement, the locomotive was donated to Michigan State University in 1957. Displayed as an icon of the steam-era, it sat at MSU until 1969, when The Michigan State University Railroad Club was formed with the ambitious goal of restoring 1225 and using it to power excursion trains that would bring passengers to football games at the university. After many years, Michigan State University donated 1225 to the newly formed MSTRP. The locomotive was moved to Owosso to former Ann Arbor Railway Backshop in 1982, and restoration of the locomotive continued until 1985. Since 1988, #1225 has been maintained in operable condition, and serves as the largest piece of operating steam equipment in the MSTRP collection.

1.5 METHODOLOGY

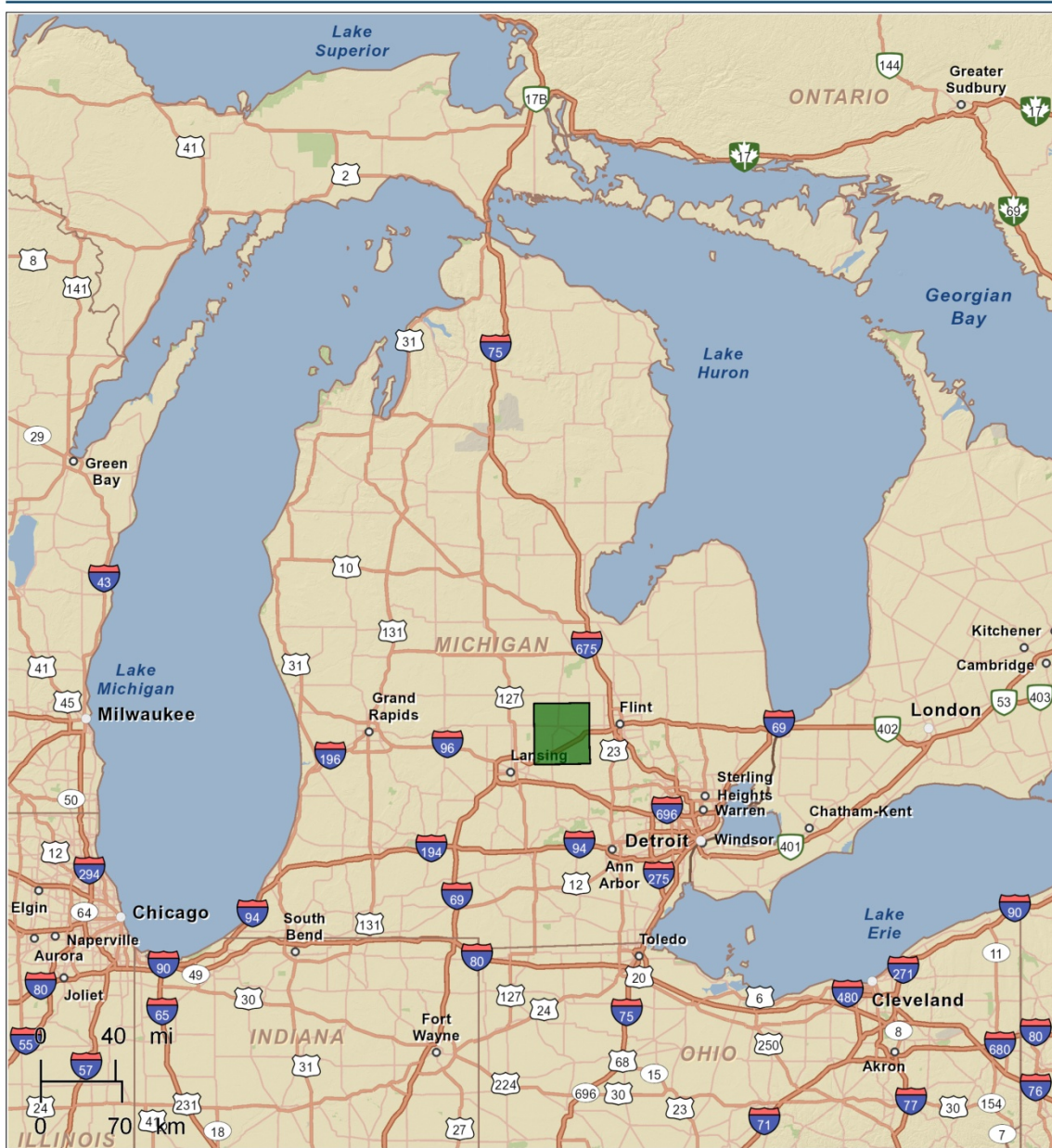
- Collected data from the U.S. Census and offer appropriate sources in order to compile a socio-economic profile.
- Investigated best practices for the completion of housing, business inventory and assessment.
- A walkability study as well as a streetscape assessment has been completed based upon best practices and case studies.
- Conducted multiple onsite observations supplemented with photo documentation.
- Facilitated personal interviews with local stakeholders such as business owners, government officials, Baker College administration, and the general public.

1.6 KEY PLAYERS

- Adam Zettel - Assistant City Manager, City of Owosso
- Justin Horvath - CEO, Shiawassee Economic Development Partnership
- David Shorter - Executive director, Steam Railroading Institute
- Bill Voorheis - Owner, Washington Business Park
- David Wakeland - Owner, Wakeland Oil
- Rex LaMore – Professor, URP Practicum
- Zenia Kotval – Professor, URP Practicum

1.7 MAPS

LOCATION MAP OF SHIAWASSEE COUNTY



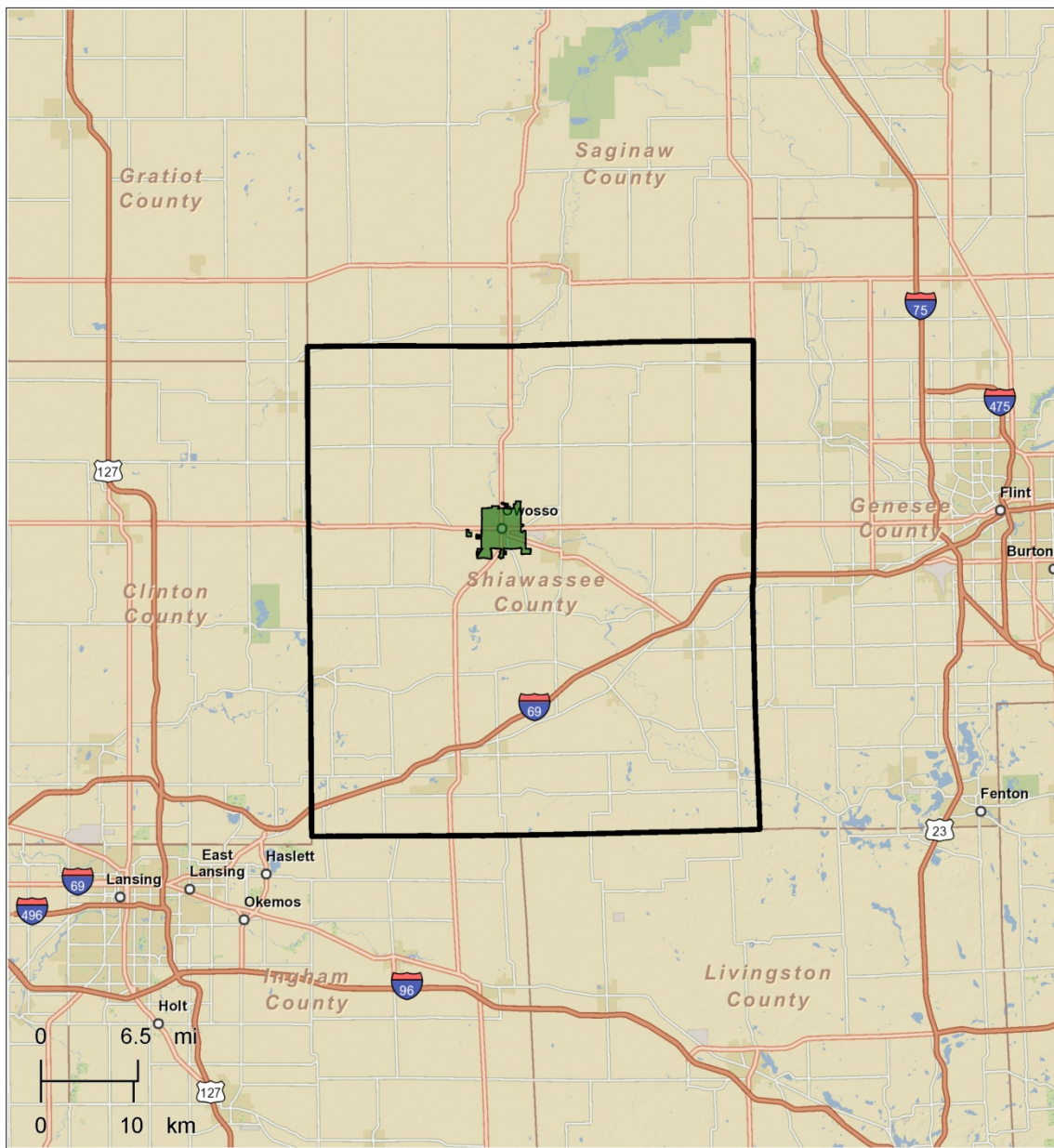
February 27, 2013

©2013 Esri

Made with Esri Community Analyst
www.esri.com/ca 800-447-9778 [Try it Now!](#)

Page 1 of 1

LOCATION MAP OF THE CITY OF OWOSSO



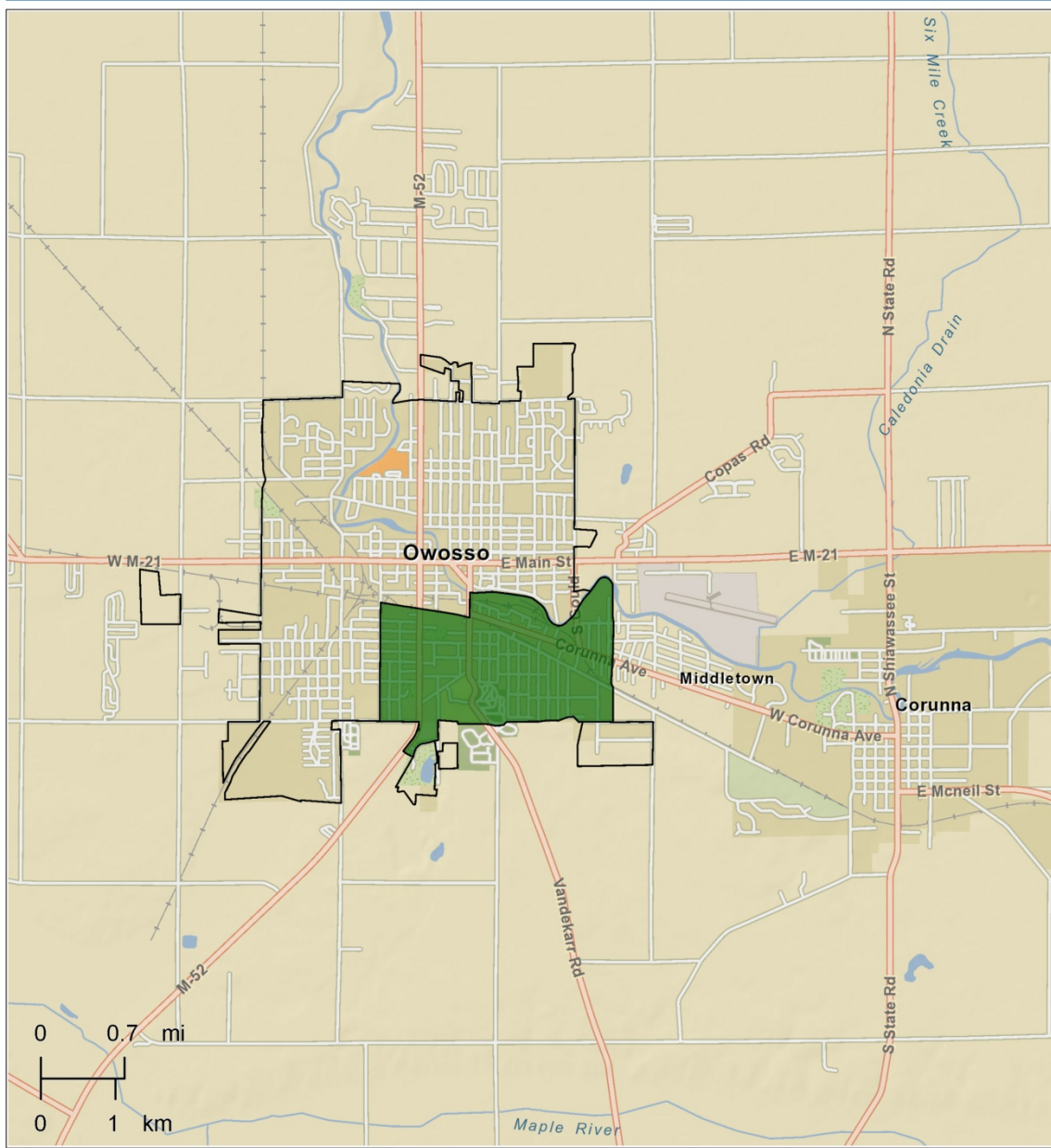
February 27, 2013

©2013 Esri

Made with Esri Community Analyst
www.esri.com/ca 800-447-9778 [Try it Now!](#)

Page 1 of 1

LOCATION MAP OF TRACT 308



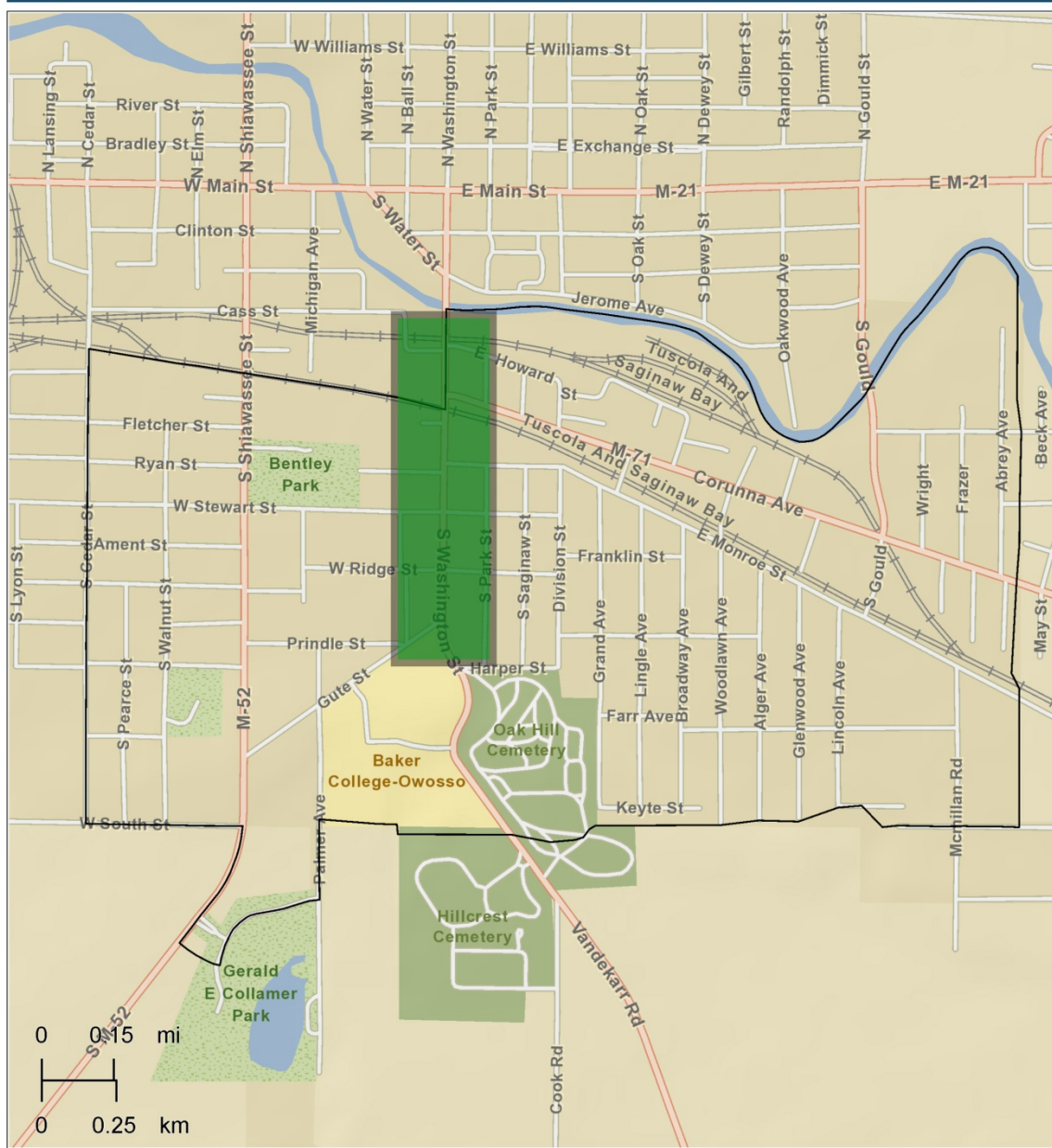
February 27, 2013

©2013 Esri

Made with Esri Community Analyst
www.esri.com/ca 800-447-9778 [Try it Now!](#)

Page 1 of 1

LOCATION MAP OF THE WASHINGTON STREET CORRIDOR



February 27, 2013

©2013 Esri

Made with Esri Community Analyst
www.esri.com/ca 800-447-9778 [Try it Now!](#)

Page 1 of 1

1.8 EXECUTIVE SUMMARY

Owosso is located in central Michigan, between Flint and Lansing. Michigan highways M-51 and M-21 intersect at the city's central downtown. The Washington St. corridor connects Baker College from the south, to the central downtown and intersects the M-71 highway, the Shiawassee River, and two sets of railroad tracks. An inventory of the corridor's assets was gathered by the MSU practicum team led by Rex LaMore and Zenia Kotval.

The assessment was an analysis of conditions of various criteria. Socioeconomic and demographic data was collected for the city of Owosso as well as the tract (308) that contains the corridor. Each block was analyzed for the criteria based on the "Complete Streets" model. (sidewalk conditions and width, handicap accessibility, signage, landscaping, lighting, bicycle lanes, traffic flow, street parking, housing conditions and setback) The corridor intersections were analyzed based on delineation and crosswalk signals/signage. Each block received a grade for each criterion to determine problem areas and better develop recommendations.

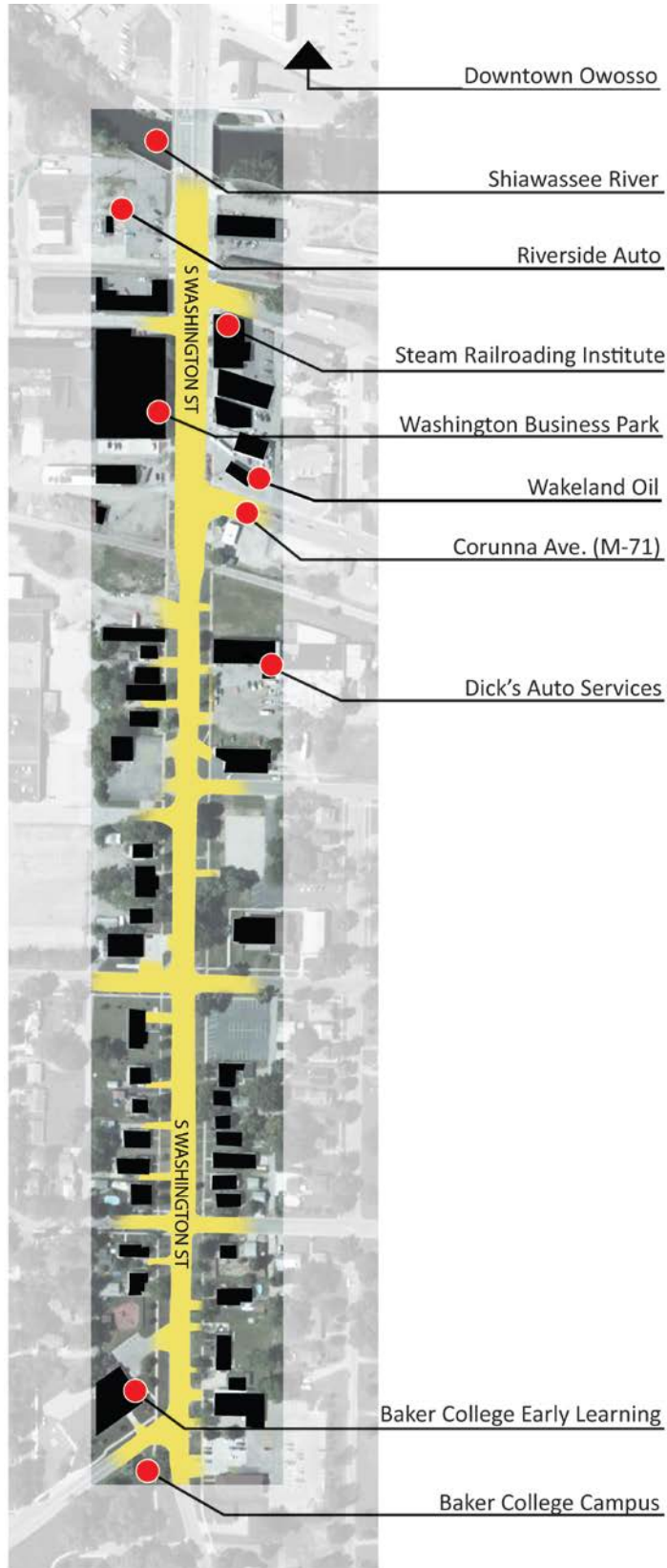
A commercial property analysis was also conducted to determine current land uses and develop recommendations for future land uses. The corridor is anchored by these properties with Baker College at the South, and Riverside Auto and the Steam Railroading Institute at the North. Each commercial, institutional and industrial property was analyzed based on setback, facade, and off-street parking. Each property was then given a grade based on the criteria.

Recommendations are based on a timeline model of short-medium-long term. Short term recommendations are small, inexpensive projects such as street restriping, adding bike lanes, and general cleanup/landscaping. Middle-term recommendations include the addition of light posts, and removing sidewalk obstructions. Long term revitalizations involve creating a fully ADA accessible corridor and creating new land uses that fit the model of an attractive connection between Baker College and downtown, and a tourist destination led by the Steam Railroading Institute.

CHAPTER 2 : SOCIOECONOMIC PROFILE

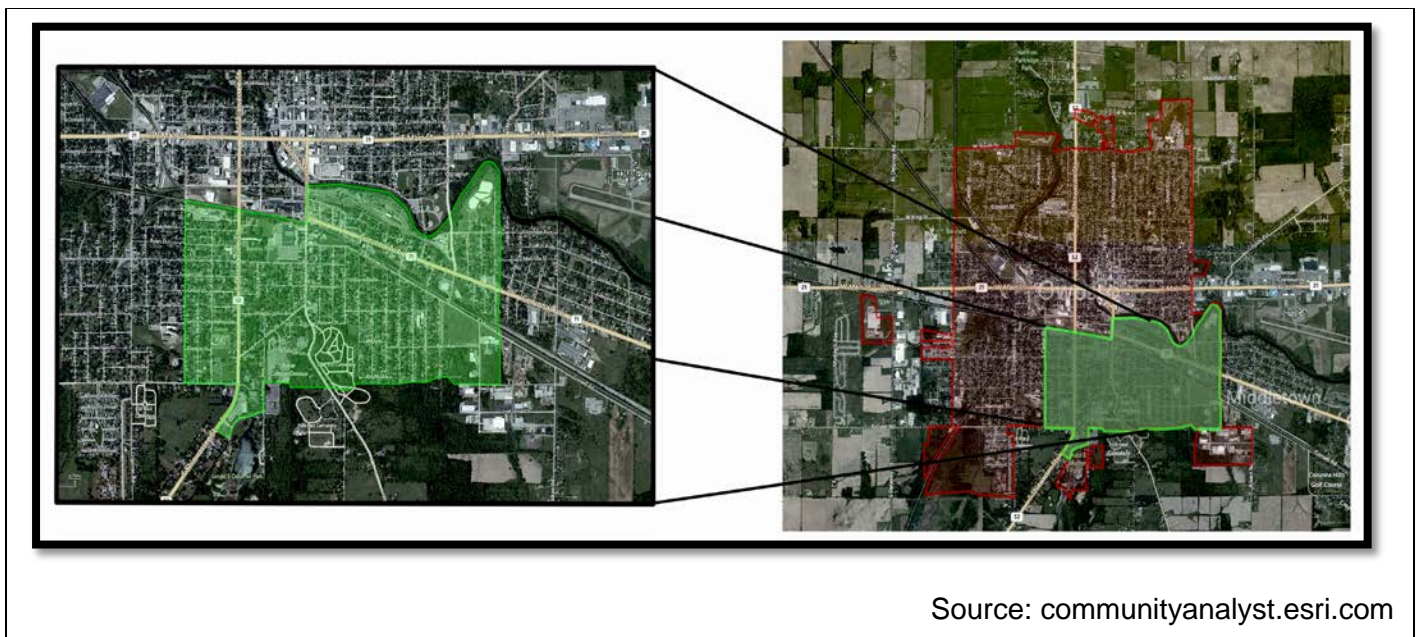
- 2.0 Introduction
- 2.1 Demographics
- 2.2 Economic
- 2.3 Housing
- 2.4 Summary

Washington Street Corridor Highlights



A socio-economic profile was compiled and analyzed to help identify current trends within Owosso and the region. The focus of the data collection and analysis was for Tract 308. This analysis has helped us to better understand where the city is as a community, where it has been, and where we can expect or plan it to be in the future. The socio-economic profile is made up of three principle components; Demographics/Education, Economics and Housing. These three sections are a collection of local and regional primary data that has been collected from the U.S. Census and American Community Survey. The data was selected to gain further insight on how the Washington St. Corridor fits into the community as a whole and into the surrounding region.

FIGURE 2-1: GEOGRAPHIC AREA



On the right, Figure 2-1 displays the City of Owosso in red, and Tract 308 in green. On the left is a closer look at Census tract 308; encompassing the Washington St Corridor. The Washington St. Corridor is located south of the Shiawassee River and north of Baker College. A five mile stretch of state highway M-71 connects Owosso and Corunna. M-71 intersects Washington St from the east and merges into the northern section of the corridor as it enters the City of Owosso. This three-way intersection marks a major gateway to the City of Owosso providing visitors with their first impressions of the City.

2.1 DEMOGRAPHICS

The demographic data in this section will show trends in total population and race distributions for Michigan, Shiawassee County, Corunna, Owosso, and Census Tract 308. Age group distributions and educational attainment are also shown for Census Tract 308.

POPULATION TRENDS

Total population data was gathered from the 1980, 1990, 2000, and 2010 US Census, and is displayed in Table 2-1. Census Tract 308 fared worse than the city, county, and state in terms of population loss. Tract 308 lost 12.21% of its population from 2000-2010, a number much higher than those of the city, county, and state, who lost 3.4%, 1.4%, and 0.6%, respectively. Owosso as a whole has fared worse than its neighbor, Corunna, in the last thirty years.

According to the 2010 U.S. Census, Tract 308 has a population of 3,284 and is located within The City of Owosso. Tract 308 boundaries consist of S Cedar St to the west, the Shiawassee River to the north, Aubrey Ave to the east and South St to the south. The Washington St. corridor is located with Tract 308.

TABLE 2-1: TOTAL POPULATION

Total Population								
	1980	% Change	1990	% Change	2000	% Change	2010	% Change
Tract 308	X	X	X	X	3,685	X	3,284	-12.21%
Owosso	16,445	X	16,322	-0.75%	15,713	-3.88%	15,194	-3.42%
Corunna	3,206	X	3,091	-3.72%	3,381	8.58%	3,497	3.32%
Shiawassee	71,140	X	69,770	-1.96%	71,678	2.66%	70,648	-1.46%
Michigan	9,262,078	X	9,295,297	0.36%	9,938,444	6.47%	9,883,640	-0.55%
Source: 1980, 1990, 2000, 2012 U.S. Census.								
2010 ACS 5 Year Estimates 2000 SF4 Sample Data								

AGE DISTRIBUTION

Age distribution data was gathered from both the 2000 US Census and the 2007-2001 American Community Survey. The data is displayed in Figure 2-2 and Figure 2-3. It is difficult to grasp any major trend in age distribution from this data, as young, middle-aged, and elderly resident populations decreased, while young adult and older adult populations increased. The percentage of older adults and elderly populations in Tract 308 are lower than those of the city as a whole (According to the Owosso Master Plan).

FIGURE 2-2: 2000 AGE DISTRIBUTION

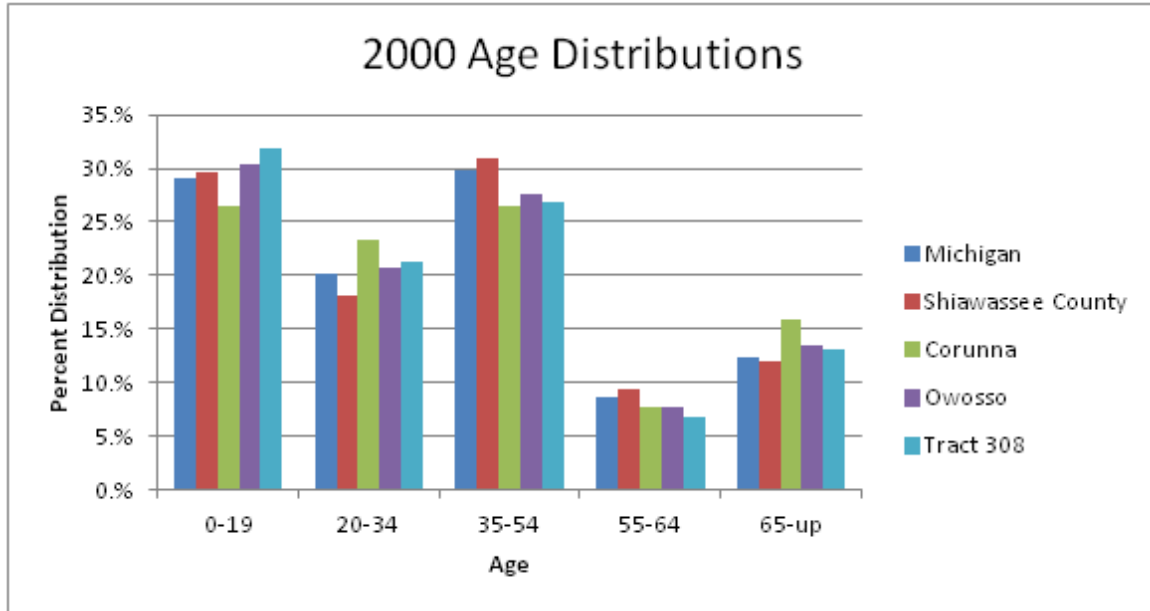
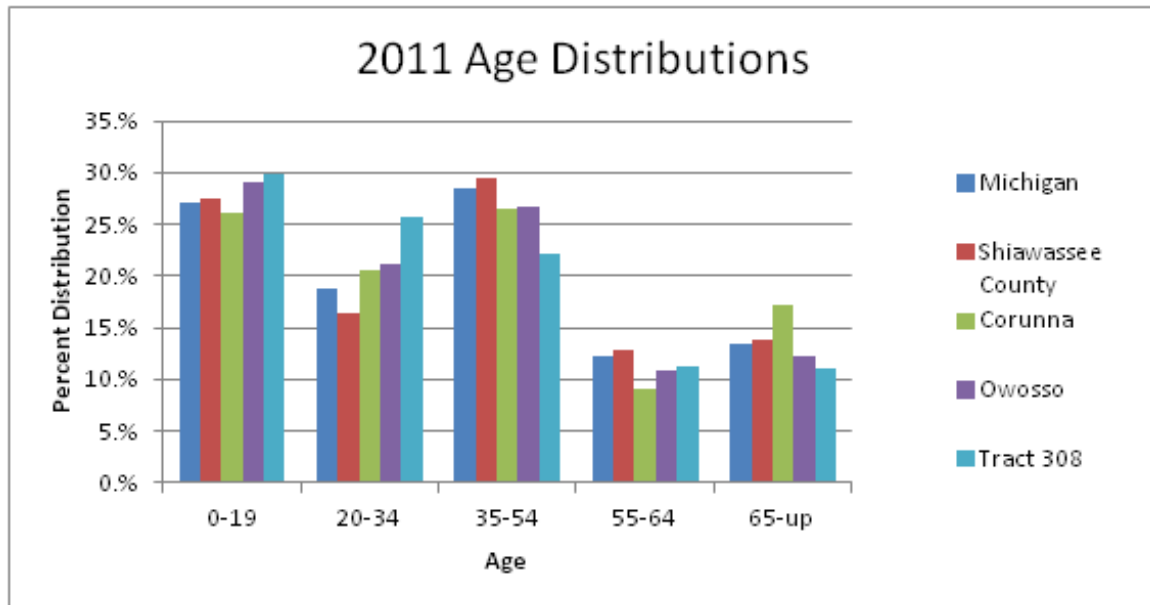


FIGURE 2-3: 2011 AGE DISTRIBUTION



Source: 2000 US Census and 2007-2011 American Community Survey

RACE DISTRIBUTION ANALYSIS

Race distribution data was collected from the 2000 US Census and 2011 ACS. The data is displayed in Table 2-2. Tract 308 has not followed the trend of the state as a whole, but has followed the trend of the city of Owosso, as well as Shiawassee County. Despite any changes to minority populations, Tract 308, Owosso and Shiawassee County remain racially homogeneous.

TABLE 2-2: RACE DISTRIBUTION

Race Distribution			
Race	Location	2000	2011 Estimate
White	Tract 308	96.4	96.4
	Owosso	97	97.8
	Corunna	95.4	97.9
	Shiawassee	97.3	97.3
	Michigan	80.2	79.3
Black	Tract 308	0.2	0.6
	Owosso	0.2	0.3
	Corunna	1.5	1.9
	Shiawassee	0.2	0.5
	Michigan	14.2	14.1
Other	Tract 308	3.4	3
	Owosso	5.6	2.4
	Corunna	0.5	0.2
	Shiawassee	3.2	2.2
	Michigan	2.8	6.6

Source: 2011 ACS 5 Year Estimates, 2000 SF1 100% Data

EDUCATIONAL ATTAINMENT ANALYSIS

Educational attainment data was collected from the 2000 US Census and 2007-2011 American Community Survey. This data displays the level of education attained by residents of Census tract 308 and is shown in Figure 2-4 and Figure 2-5. Tract 308 has improved their educational attainment levels over the last decade, with an increase of nearly 20% in high school graduates. This increase in the number of educated workers may cause a shift in demand for various markets in the future such as retail service and housing. In comparison to the Shiawassee County, Tract 308 was able to make a much more significant shift in the percent of population from having less than a high school diploma to being a high school graduate or equivalent. The State of Michigan experienced a small shift in the opposite direction from the year 2000 to 2011.

FIGURE 2-4: 2000 EDUCATIONAL ATTAINMENT

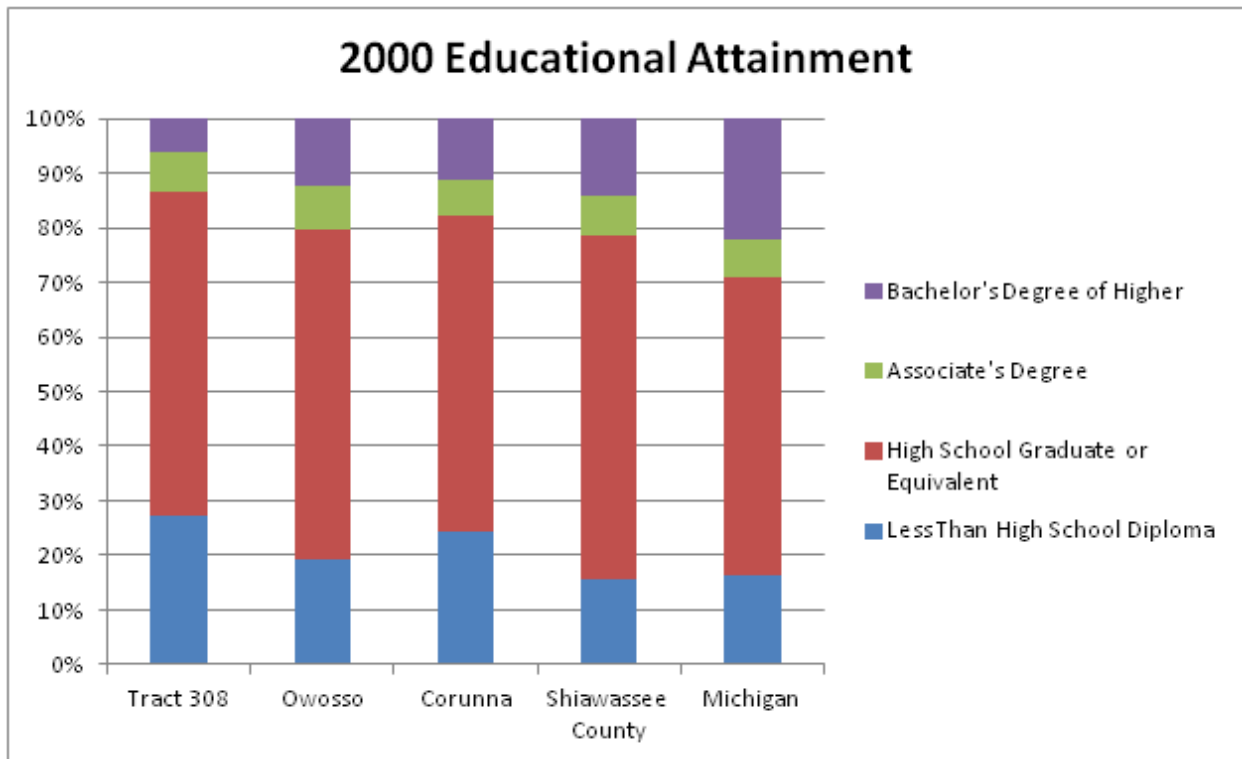
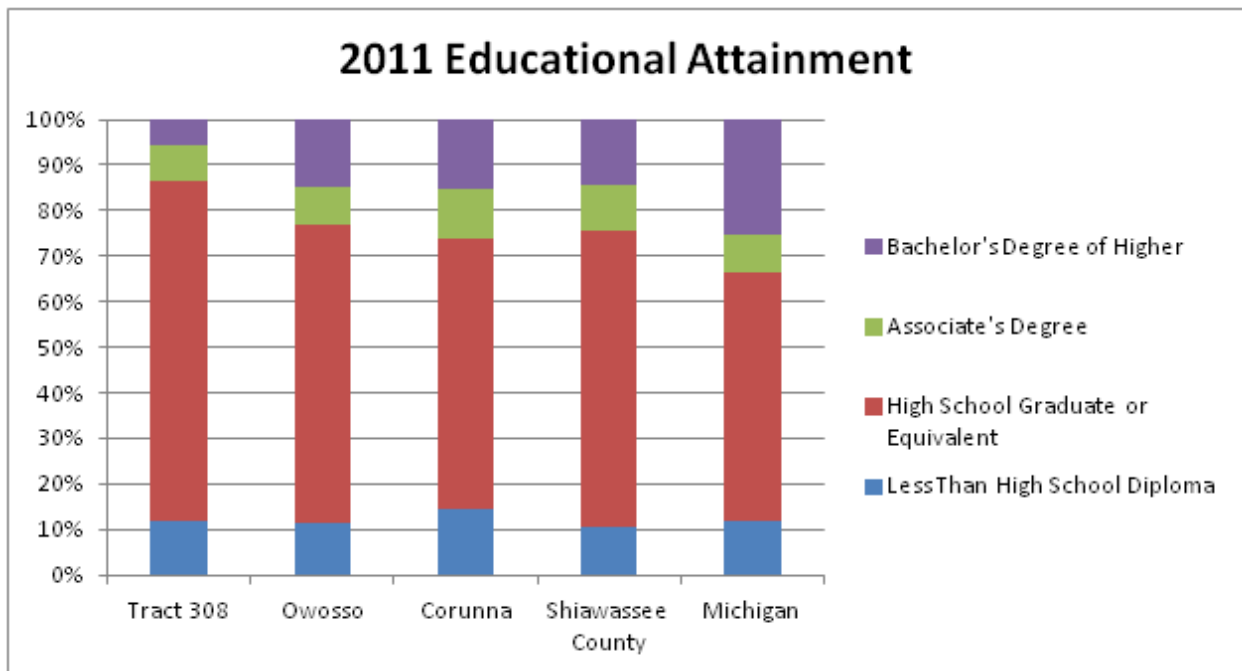


FIGURE 2-5: 2011 EDUCATIONAL ATTAINMENT



Source: 2000 US Census and 2007-2011 American Community Survey

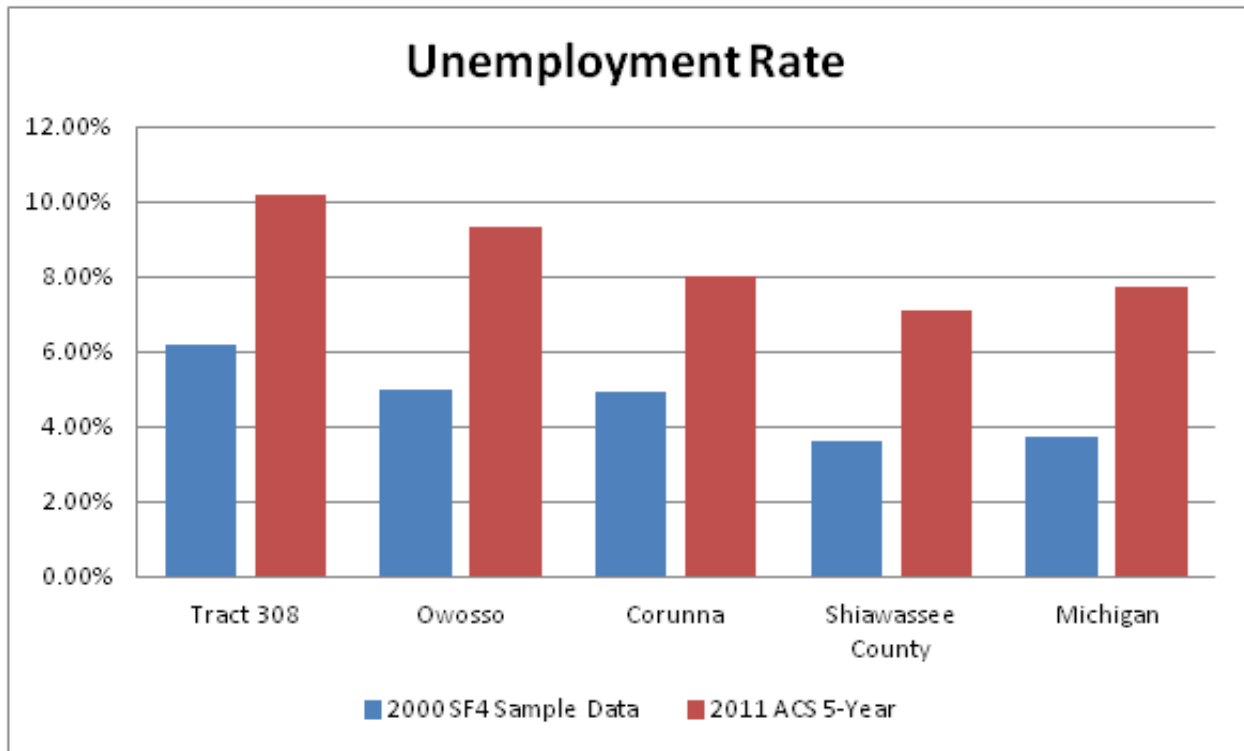
2.2 ECONOMIC

The economic data in this section provides insight into employment status, occupation, industry, average incomes and poverty rate. Each characteristic for Census Tract 308 is compared with Owosso, Corunna, Shiawassee County, and the State of Michigan. The data was collected from 2000 SF4 Sample Data and 2007-2011 American Community Survey.

EMPLOYMENT STATUS

Figure 2-6 shows the unemployment trends for Tract 308 over the last decade. In 2008, the U.S. economy experienced a severe down turn that greatly affected the housing market and manufacturing sector. Michigan, Shiawassee County, Owosso and Corunna were hard hit and experienced an increase in unemployment. The 2011 unemployment rate for Owosso is nearly double the rate from 2000, however still lower than the rate of Tract 308. According to 2007-2011 American Community Survey data, Tract 308 residents are still experiencing an unemployment rate over 10%.

FIGURE 2-6: UNEMPLOYMENT RATE

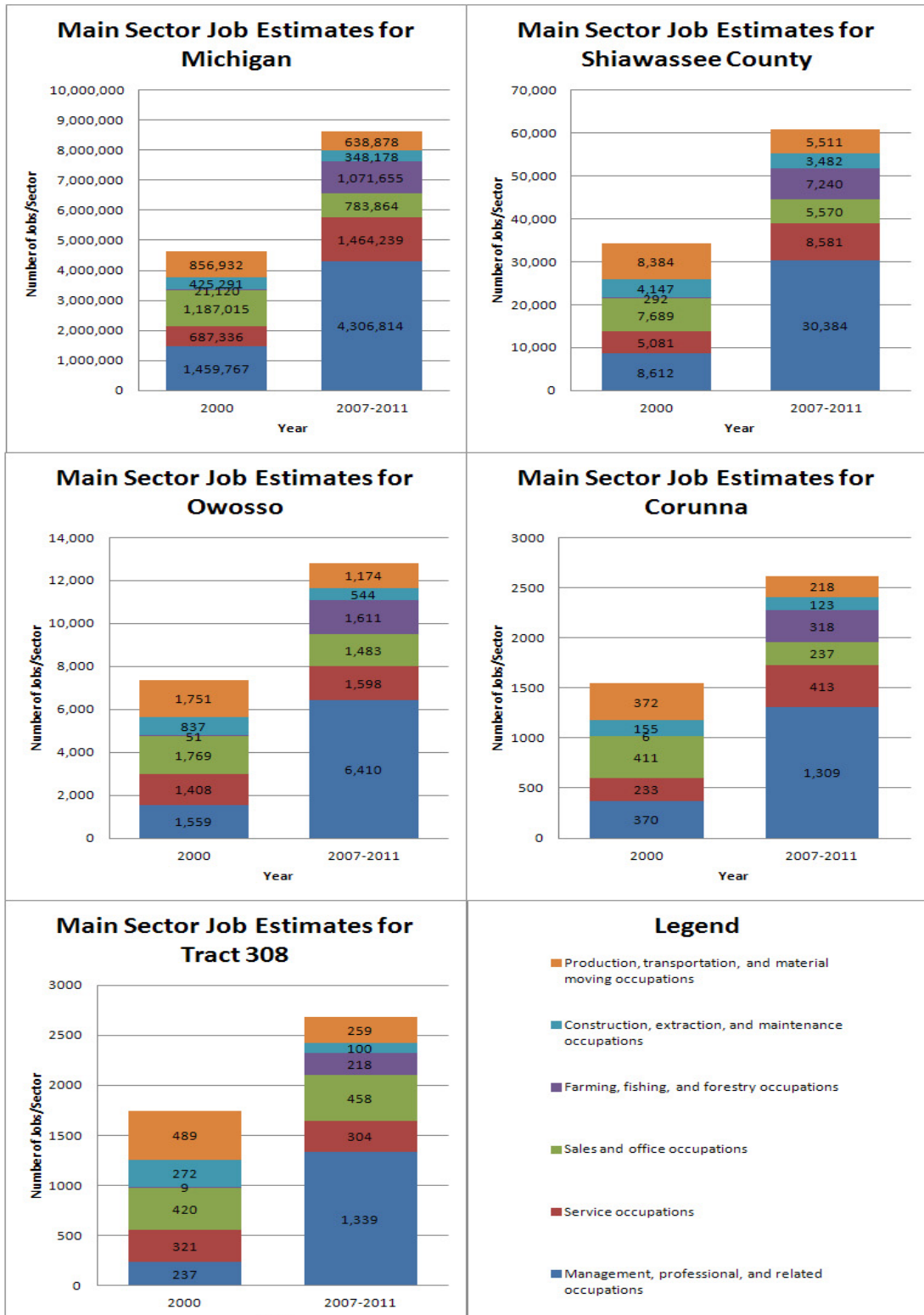


Source: 2007-2011 American Community Survey

OCCUPATION ANALYSIS

Figure 2-7 displays the main occupation sectors jobs estimates for Tract 308 between 2000 and 2007-2011. Tract 308 gained jobs in two sectors; service and management, professional and related occupations. Unfortunately, the economic down turn has effected Tract 308's employment in three occupation sectors; production, transportation and material moving, natural resources, construction and maintenance and sales and office. This is a net loss of 409 jobs for people living in Tract 308.

FIGURE 2-7: MAIN SECTOR JOB ESTIMATES



Source: 2000 U.S. Census and 2007-2011 American Community Survey

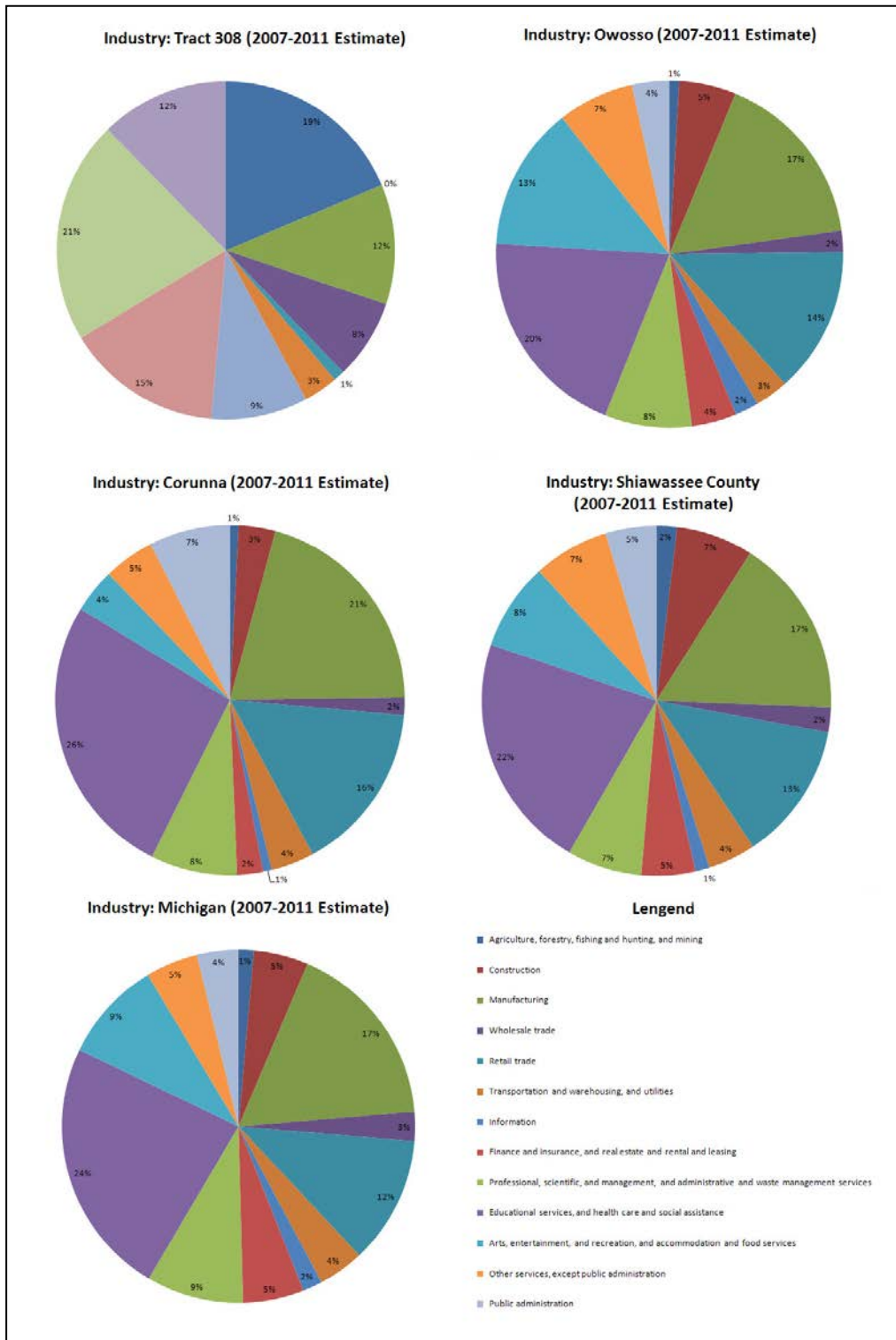
INDUSTRY ANALYSIS

Figure 2-8 displays the 2007-2011 American Community Survey Industry data for Tract 308. This data outlines the distribution of jobs in 9 industry sectors. Agriculture, forestry, fishing and hunting, and mining, wholesale trade, and public administration are excluded from Figure 2-8 because they are not represented in Tract 308. Arts, entertainment, recreation, accommodation and food services (20%), Manufacturing (17%), and Educational, health and social services (14%) are the top three employment sectors.

The largest contribution to Owosso's economy in Tract 308 is the Arts, entertainment, recreation, accommodation and food services. Although this grouping doesn't provide us with a breakdown of each of its parts, as a whole we can determine that these jobs, in general, tend to be low paying for the service sector. This includes hotels, inns, cafeterias, restaurants and campground/RV park workers.

The other two dominate distribution of jobs based on industry for Tract 308 Manufacturing and Educational, health and social services. This closely coincides with the city of Owosso which work force dominates these two industries.

FIGURE 2-8: INDUSTRY



Source: 2007-2011 American Community Survey

MEDIAN HOUSEHOLD INCOME ANALYSIS

TABLE 2-3: HOUSEHOLD INCOME

	2000 SF4 Sample Data		2011 ACS 5-Year	
	Estimate	Percent Change	Estimate	Percent Change
Tract 308	\$ 26,977.00	-	\$31,339.00	16.7%
Owosso	\$ 32,576.00	-	\$36,354.00	11.6%
Corunna	\$ 29,831.00	-	\$40,515.00	35.8%
Shiawassee County	\$ 42,553.00	-	\$47,552.00	11.8%
Michigan	\$ 44,667.00	-	\$48,669.00	8.9%

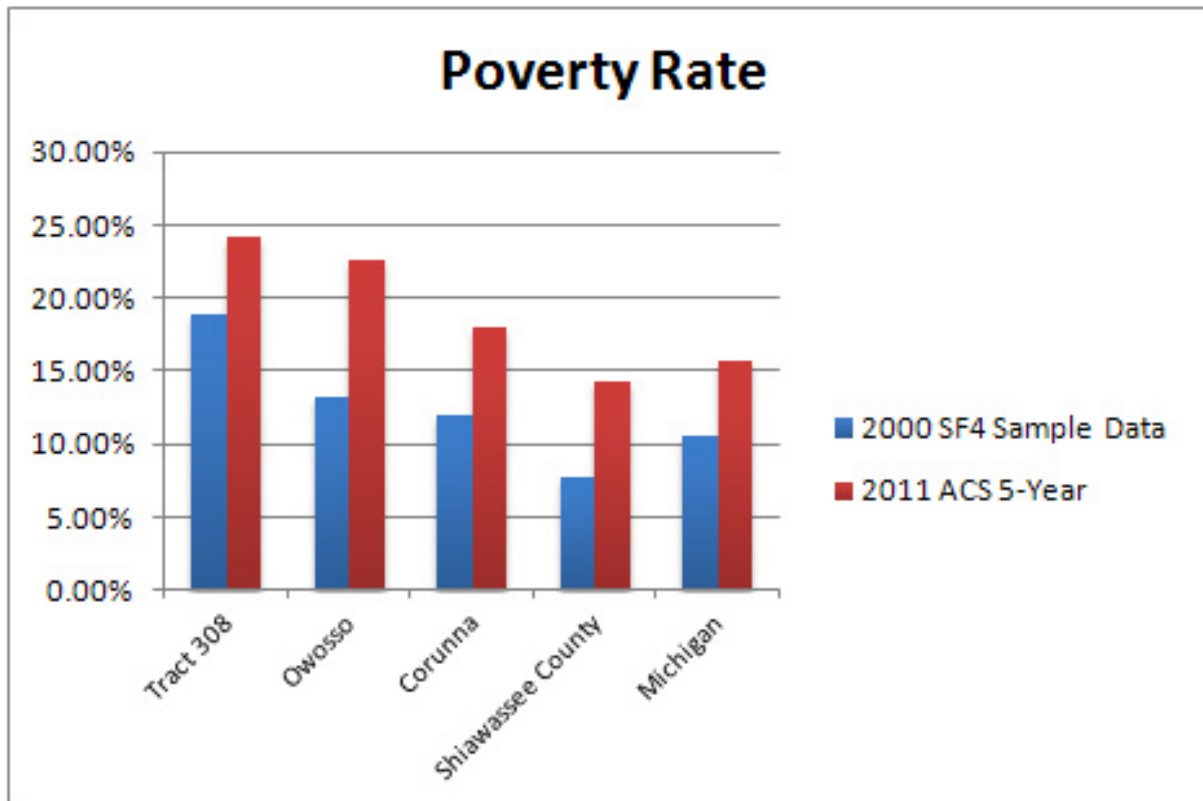
Source: 2007-2011 American Community Survey

Table 2-3 indicates the median household income for Michigan, Shiawassee County, Corunna, Owosso and Census Tract 308 for 2000 and 2007-2011 estimates. Overall, there has been growth in all five places, but Corunna is the only place to maintain growth at the rate equal or greater than inflation. Tact 308's median household income has grown faster than the City of Owosso as a whole, but still indicates slow growth and a decrease of wealth when national inflation is considered.

POVERTY RATE ANALYSIS

Figure 2-9 indicated the change in poverty rate for Michigan, Shiawassee County, Corunna, Owosso, and Tract 308 between 2000 and 2007-2011 estimates. The poverty in Tract 308 has experienced a significant increase since 2000. This change in poverty correlates with the trend in the surrounding region and state. Tract 308 has a higher unemployment rate than Michigan, Shiawassee County, Corunna and Owosso.

FIGURE 2-9: POVERTY RATE



Source: 2000 U.S. Census and 2007-2011 American Community Survey

2.3 HOUSING

The housing data analyzed for Owosso includes total housing units, year structure built, average value, average rent, housing tenure, occupancy rates and vacancy rates for the city, county, and state as a whole. The data were collected from the 2000 Census and 2007-2011 American Community Survey.

NUMBER OF HOUSING UNITS ANALYSIS

The first aspect of the housing analysis examined was the number of total housing units within the City of Owosso. Additionally, the number of units in City of Corunna, Shiawassee County, Michigan State and Census Tract 308 was analyzed for the purpose of comparison. Between the years of 2000 and 2011 the total number of housing units in Michigan rose from 3,785,661 to 4,532,215, a 21.41% increase in the number of housing units. The total number of units in Shiawassee County rose from 26,896 to 30,339, equivalent to a 12.80% increase in the number of housing units. The City of Owosso had the lowest percentage of growth in total housing units at 11.58%.

TABLE 2-4: 2000 OWNER/RENTER OCCUPIED HOUSING

Location	Total Units	Vacant Units	% Vacant	Occupied units	Owner Occupied		Renter Occupied	
					Number of Units	% of Total Units	Number of Units	% of Total Units
Tract 308	1,517	82	5.4%	1,435	898	62.6%	537	37.4%
Owosso	6,724	384	5.7%	6,340	4,170	65.8%	2,170	34.2%
Corunna	1,407	87	6.2%	1,320	686	52.0%	634	48.0%
Shiawassee	29,087	2,191	7.5%	26,896	21,539	80.1%	5,357	19.9%
Michigan	4,234,279	448,618	10.6%	3,785,661	2,793,124	73.8%	992,537	26.2%

Table 2-4 shows data collected on housing units from the 2000 U.S Census. This table shows the total number of housing units available in the city of Owosso, City of Corunna, Shiawassee County and Michigan State as well as Census Tract 308. It further divides the data into owner-occupied, renter-occupied, total housing units and vacant units for each geographical area.

TABLE 2-5: 2007-2011 OWNER/RENTER OCCUPIED HOUSING

Location	Total Units	Vacant Units	% Vacant	Occupied Units	Owner Occupied		Renter Occupied	
					Number of Units	% of Total Units	Number of Units	% of Total Units
Tract 308	1,541	181	11.7%	1,360	876	64.4%	484	35.6%
Owosso	7,074	759	10.7%	6,315	4,072	64.5%	2,243	35.5%
Corunna	1,440	65	4.5%	1,375	681	49.5%	694	50.5%
Shiawassee	30,339	2,758	9.1%	27,581	21,544	78.1%	6,037	21.9%
Michigan	4,532,215	707,033	15.6%	3,825,182	2,812,607	73.5%	1,12,575	26.5%

Table 2-5 contains housing data collected from the 2007-2011 American Community Survey. This table contains the same geographical representation as the data collected in last table. The data from the 2007-2011 American Community Survey show an increase in housing units as well as an increase in housing vacancies. The number of owner-occupied housing units for the City of Owosso fell by 98, whereas the number of owner-occupied housing units for Shiawassee County and Michigan State increased. Narrowing the analysis down to a more specific area, tract 308, the total units increased by 24, but there were also almost one hundred more vacant units. One trend to point out is that in Tract 308 the percent of renter occupied units fell, when each of the comparables saw a rise in renter occupied housing percentage.

HOME OWNERSHIP AND RENTER ANALYSIS

Table 2-6 shows the comparison between owner occupied housing and renter units of the City of Owosso. The data compared is from the U.S. Census 2000 and 2007-2011 American Community Survey.

TABLE 2-6: OWOSSO HOME OWNERSHIP VS. RENTER

Owosso Home Ownership Vs. Renter					
		2000 SF3		2011 ACS 5-Year	
Vacant housing units		384		759	
Occupied housing units		6,340		6,315	
Owner-occupied housing units		4,170		4,072	
Renter-occupied housing units		2,140		2,243	

Source: 2000 US Census, 2011 ACS 5 Year Estimates

The Percentage of owner occupied units in the City of Owosso decreased slightly from 65.8% in 2000 to 64.5% in 2011. The percentage of renter occupied units for the City of Owosso were stable and had a small increase from 34.2% in 2000 to 35.5% in 2011. Source: 2000 U.S. Census & 2007-2011 American Community Survey

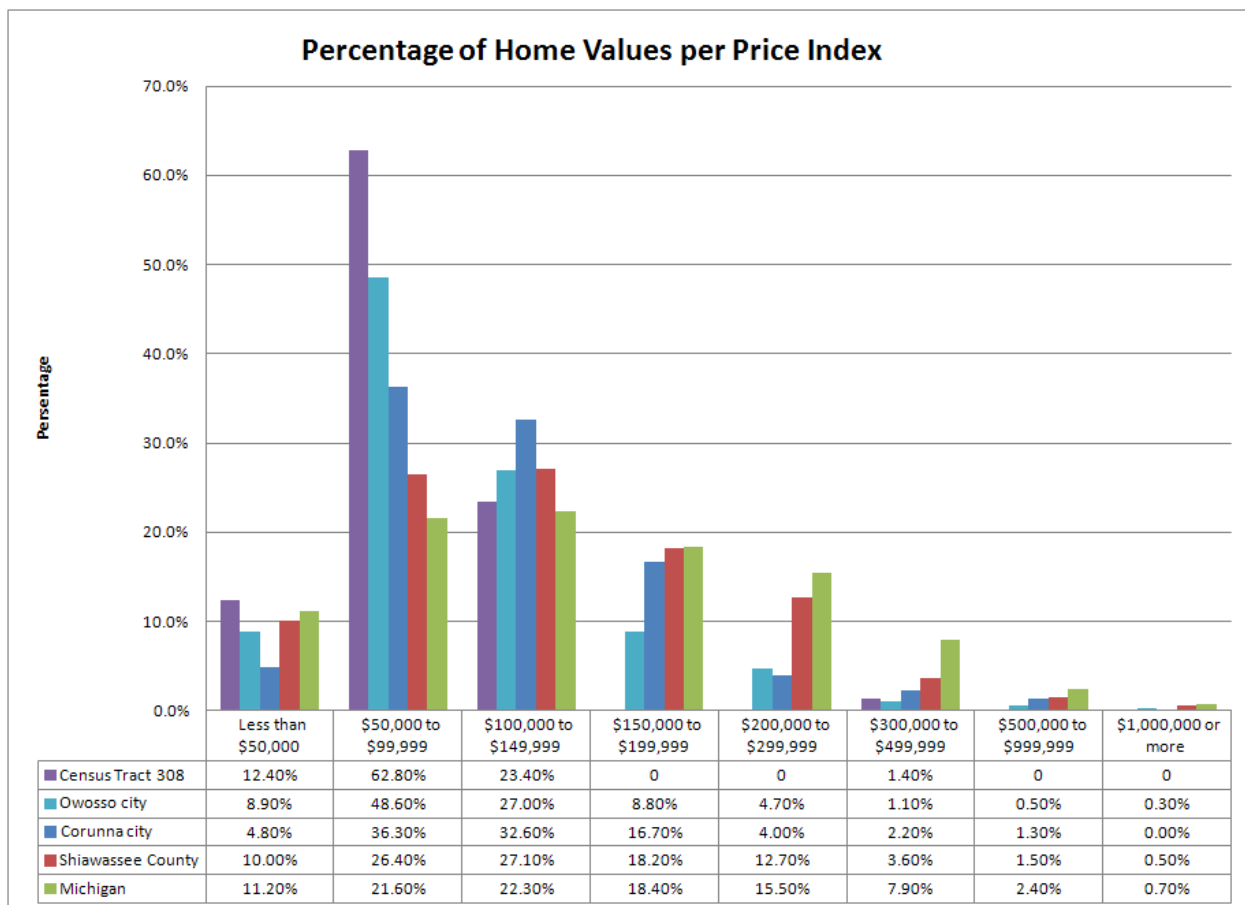
TABLE 2-7: 2000 & 2011 MEDIAN VALUE OF OWNER-OCCUPIED UNITS

Median Value (dollars) of Owner-occupied units					
		2000 SF3		2011 ACS 5-Year	
Location		Estimate	Percentage of Change	Estimate	Percentage of Change
Tract 308		\$69,800	-	\$84,900	21.63%
Owosso		\$81,700	-	\$92,200	12.85%
Corunna		\$84,800	-	\$107,800	27.12%
Shiawassee		\$95,900	-	\$122,800	28.05%
Michigan		\$115,600	-	\$137,300	18.77%

Table 2-7 shows both 2000 and 2011 median value of owner-occupied units and the percentage change between them. According to data above, Shiawassee County increased the most from \$95,900 to \$122,800, which is 28.05%. Compare to other regions, City of Owosso has lower rise rate of only 12.85%.

The Data in Figure 2-10 shows a comparison of the percentage of homes with certain values in 2011. The notable trend is that Owosso and Corunna have some differences in the percentage of homes in each data range. But both Owosso and Corunna have a large percentage of their housing stock valued between the ranges of \$50,000 to \$99,999, especially for City of Owosso which 48.6% of their housing stock lies within this range. Shiawassee County also has two large percentages of its total housing stock valued between the same dollar ranges as Owosso and Corunna as well as between the ranges of \$100,000 to \$149,999. In addition, Shiawassee County has more houses valued between the ranges of \$200,000 to \$299,999, a total of 12.7% of its total housing stock.

FIGURE 2-10: PERCENTAGE OF HOME VALUES PER PRICE INDEX

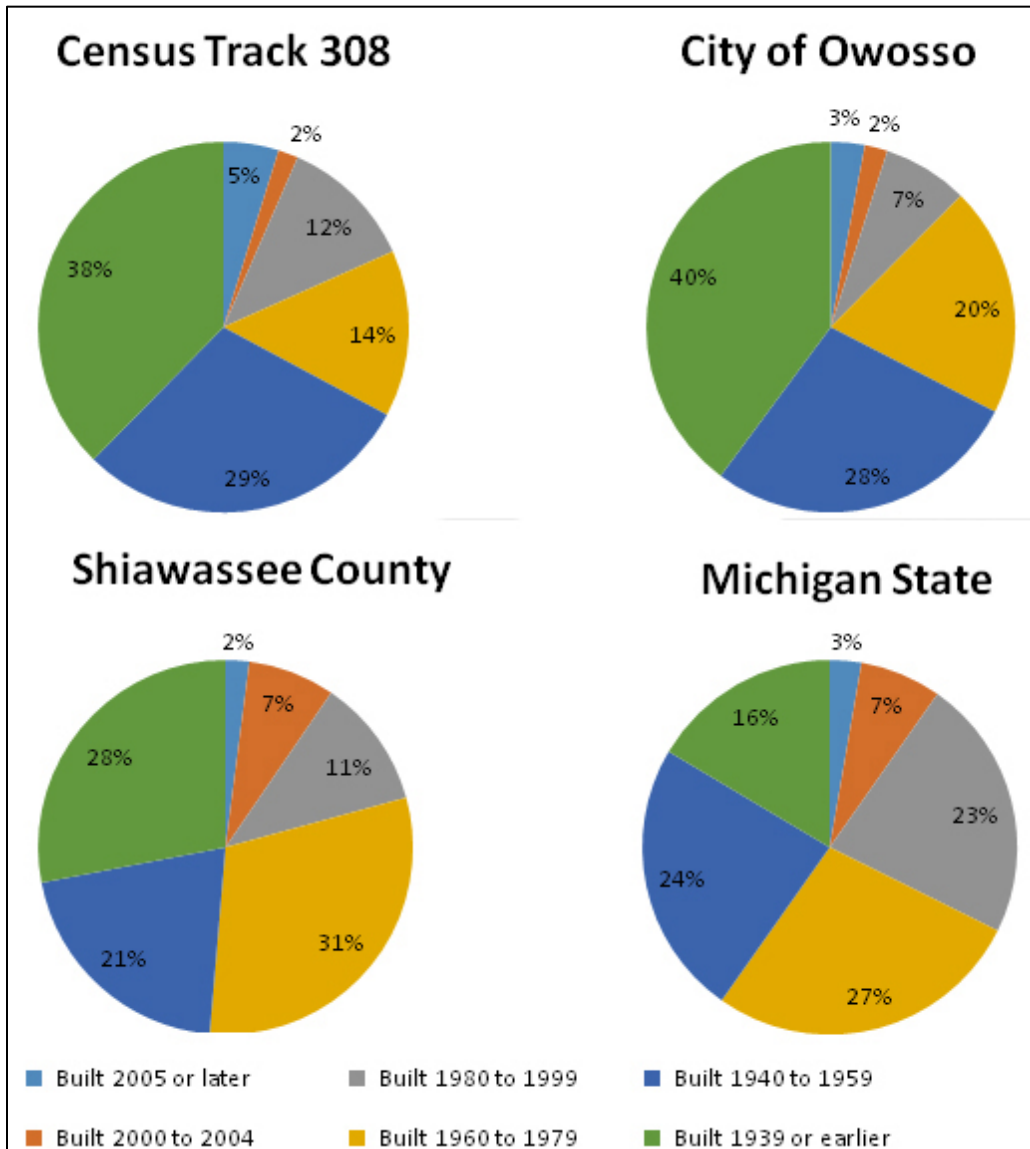


Source: 2007-2011 American Community Survey

AGE OF HOUSING STRUCTURE ANALYSIS

Figure 2-11 illustrates the age of housing structures in Census Tract 308, City of Owosso, Shiawassee County and Michigan State. 38% of Tract's housing was built in 1939 or earlier, whereas Owosso had their largest part that 39.9% of its housing units built in 1939 or earlier. Shiawassee County only had 25.3% of its total housing units built in 1939 or earlier. In comparison to the other geographical areas, Owosso has the oldest supply of current housing stock at 40% of units built in 1939 or earlier.

FIGURE 2-11: AGE OF HOUSING STOCK



Source: 2007-2011 American Community Survey

2.4 SUMMARY

Tract 308 has encountered many challenges over the last decade. Many of these challenges are directly related to the economic decline in Owosso and the surrounding region.

While the economic data suggests that Tract 308 is a declining section of the city, the housing and educational data suggest otherwise.

The tract, like the rest of the county and state, experienced an increase in the poverty rate over the last decade. Tract 308, however, now has a poverty rate of nearly 25%, which is roughly 10% higher than Shiawassee County as a whole. The median household income in the tract is 5,000 dollars lower than Owosso as a whole and 17,000 dollars lower than the State of Michigan.

Despite these difficulties, Tract 308 has made some advancement in both housing and education. The tract has cut high school dropouts in half over the last ten years. The other census groups have also lowered their dropout rate, but not as much as Tract 308.

The tract also saw a jump in housing value over the last ten years. While the values in the tract are lower than the city, county and state, the home values in the tract are increasing at a higher rate (21.63%) than the city (12.85%) and state (18.77%). They are not quite to the level of Corunna (27.12%) and the whole county (28.05%).

CHAPTER 3 : MARKET ANALYSIS

3.0 Intro

3.1 Business Summary

3.2 Market Potential

3.3 Restaurant Market Potential

3.4 Retail Goods and Services Expenditures

3.5 Retail MarketPlace Profile

Appendix C: ESRI Documents

3.0 INTRO

Our team used information retrieved from the ESRI Business and Community Analyst online resources in order to conduct a thorough analysis of the market conditions in the corridor. This research and analysis will enable a better perspective on the types of industry that are conducted in the Washington Street Corridor, what types of businesses employ the most people, how people spend their money and where there is demand or sales potential. This information will be valuable upon making recommendations for the Washington Street Corridor in order to revitalize the area.

3.1 BUSINESS SUMMARY

As shown in Table 3-1, within a one-mile radius of the midpoint of the Washington Street Corridor there are 542 businesses, employing 5,172 people out of the 9,524 residents in the area. Expanding to a three-mile radius of the corridor there are 1,124 businesses, employing a total of 12,867 people out of a population of 23,542. From one to three mile radii, we see the number of businesses almost double, and the number of employees increases by more than two-fold, along with the population. Expanding even further to a five-mile radius the number of businesses only increases to 1,238, employees to 13,848 and population to 28,322.

TABLE 3-1: BUSINESS & EMPLOYEE COUNT

	1 mile	3 mile	5 mile
Total Businesses	542	1,124	1,238
Total Employees	5,172	12,867	13,848
Total Residential Population	9,524	23,542	28,322

Shown by table 3-1, from a one-mile radius to a three-mile radius there is an increase of 25 construction businesses and employing an additional 57 people. There are 26 more manufacturing businesses in a three-mile radius than the one-mile radius, employing an additional 1,235 people. In the three-mile radius there are 23 additional transportation businesses than in the one-mile radius, this more than doubles the number of employees from 261 to 544. There are 23 wholesale trade businesses in the one-mile radius, while there are 58 in the three-mile radius. This presents an increase of 310 employees.

In terms of retail trade, there is an increase of 99 businesses from one to three mile radii, employing 1687 more people. There are eight sub-categories given by ESRI under retail trade, these include: Home Improvement, General Merchandise Stores, Food Stores, Auto Dealers & Gas Stations, Apparel & Accessory Stores, Furniture & Home Furnishings, Eating & Drinking Places and Miscellaneous Retail. Of these eight categories the largest increase in businesses and employees is in Eating & Drinking places, with 27 more business and 614 more employees in the three-mile radius than the on-mile radius of the corridor.

The next major category of the business summary is Finance, Insurance and real estate. From a one-mile radius of the Washington Street Corridor to a three-mile radius there is an increase of 52 businesses in this sector, accounting for 211 additional employees. The biggest increase in employees comes from Banks, Savings & Lending Institutions, at a total of 109

employees. However, the largest increase in businesses is in Real Estate, holding & Other Investment Offices with 21 additional businesses in the three-mile radius than the one-mile radius.

A large increase in both businesses and employees occurs in the services industry from the one-mile radius to the three-mile radius. There are an additional 237 businesses and 3,088 employees. This is the largest increase for any industry between the one and three mile radii. The two sub-categories of the service industry that display the largest increases are health services, 49 additional businesses and 1,630 additional employees. And second, Educational Institutions and Libraries; increasing from 12 to 29 businesses with an additional 612 employees. It is also important to note the increase in government jobs between the one and three mile radii; a total of 623 more people employed among 57 additional establishments.

The change is less drastic between the three-mile and five-mile radii in terms of businesses and number of employees. Collectively: Construction, Manufacturing, Transportation and Wholesale Trade account for an additional 41 businesses and 270 employees expanding to the five-mile from the three-mile radius of the Washington Street Corridor. There are 27 more Retail Trade businesses and 340 more employees stepping up to the five-mile radius. The five-mile radius includes only seven more Finance, Insurance & Real Estate businesses, and 14 additional employees. The trend continues with the Services and Government industries; increases of 35 and 5 businesses, and 262 and 55 employees respectively.

TABLE 3-2: BUSINESS & EMPLOYEE COUNT BY INDUSTRY

	1-Mile		3-Mile		5-Mile	
	Businesses	Employees	Businesses	Employees	Businesses	Employees
Construction	30	207	55	364	75	409
Manufacturing	23	487	49	1722	53	1835
Transportation	8	261	31	544	38	603
Wholesale Trade	23	148	58	458	68	511
Retail Trade	119	1122	218	2809	235	3149
Finance, Insurance, Real Estate	49	348	101	559	108	573
Services	239	1992	476	5080	511	5342
Government	30	501	87	1124	92	1179
...						
Totals	542	5172	1124	12867	1238	13848

3.2 RETAIL MARKET POTENTIAL

These Retail Market Potential estimates and projections are based on national tendencies to use various products and services that have been applied to the local demographic composition extending out from the Washington St corridor in a 1, 3 and 5 mile radius. The Retail Market Potential data identify the consumer behavior can be compared between the 1, 3 and 5 mile radius based on the Market Potential Index (MPI) of the U.S. national average. A MPI 100 indicates the consumer behavior for each radius is equivalent to the U.S. average. A MPI above 100 indicates above the U.S. average and a MPI below 100 indicated below the U.S. average. This data has been derived and compiled from statistics provided by ESRI software. The categories listed in the tables have been selected because they are outliers in comparison to the rest of the data.

TABLE 3-3: ONE-MILE RETAIL MARKET POTENTIAL

Consumer Behavior	Expected Number Adults	Percent of Adults	Market Potential Index (MPI)
Bought cigarettes at convenience store in last 30 days	1,560	22%	143
Spent on toys/games in last 12 months: \$50-\$99	238	3.4%	122
DVD rented in last 30 days: 5+	1,085	15.3%	116
Went to a live theater in last 12 months	689	9.7%	74
Exercised at Club 2+ times per week	613	8.7%	70
Bought/leased new vehicle last 12 mo	229	6.2%	65
Average monthly credit card expenditures: \$701+	587	8.3%	62
Spent on domestic vacations last 12: mo \$3000+	203	2.9%	57
Spent on foreign vacation last 12 mo: \$3000+	189	2.7%	54
Took 3+ foreign trips in last 3 years	177	2.5%	52

TABLE 3-4: THREE-MILE RETAIL MARKET POTENTIAL

Consumer Behavior	Expected Number Adults	Percent of Adults	Market Potential Index (MPI)
Bought cigarettes at convenience store in last 30 days	3,537	19.8%	128
Spent on toys/games in last 12 months: \$50-\$99	557	3.2%	117
DVD rented in last 30 days: 5+	989	5.5%	107
Went to a live theater in last 12 months	1,769	10%	76
Exercised at Club 2+ times per week	1,595	8.9%	72
Bought/leased new vehicle last 12 mo	717	7.5%	78
Average monthly credit card expenditures: \$701+	1,631	9.1%	68
Spent on domestic vacations last 12: mo \$3000+	621	3.5%	69
Spent on foreign vacation last 12 mo: \$3000+	519	2.9%	58
Took 3+ foreign trips in last 3 years	473	2.6%	55

TABLE 3-5: FIVE-MILE RETAIL MARKET POTENTIAL

Consumer Behavior	Expected Number Adults	Percent of Adults	Market Potential Index (MPI)
Bought cigarettes at convenience store in last 30 days	4,115	19%	123
Spent on toys/games in last 12 months: \$50-\$99	705	3.3%	119
DVD rented in last 30 days: 5+	1,189	5.5%	106
Went to a live theater in last 12 months	2,182	10.1%	76

Exercised at Club 2+ times per week	1,899	8.8%	71
Bought/leased new vehicle last 12 mo	886	7.7%	80
Average monthly credit card expenditures: \$701+	2,011	9.3%	69
Spent on domestic vacations last 12: mo \$3000+	778	3.6%	71
Spent on foreign vacation last 12 mo: \$3000+	621	2.9%	58
Took 3+ foreign trips in last 3 years	564	2.6%	54

Within the 1 mile radius of Washington St corridor, the two major outliers were a 'Bought cigarettes at convenience store' in last 30 days at a MPI of 143 and 'Took 3+ foreign trips in last 3 years' at a MPI of 52. In terms of entertainment, the residents within the 1 mile radius had a high MPI for 'at home' entertainment and a low MPI for 'away from home' entertainment. There is also a low MPI for expensive, long-distance travel. When compared to the 3 and 5 mile radius, there is a decrease in the MPI for 'Bought cigarettes at convenience store in last 30 days' and the 'at home' entertainment. There is also an increase in spending for new/leased vehicles and travel as the distance of the radius increases.

3.3 RESTAURANT MARKET POTENTIAL

Restaurant companies are essentially retailers of prepared foods, and their operating performance is influenced by many of the same factors that affect traditional retail stores. Competition between restaurants is intense, since dining options abound. Competitors include everything from delis and pizzerias to fine-dining restaurants.

Restaurants can be loosely broken into two broad categories: fast food and casual sit-down establishments. The same general factors discussed above dictate the performance of each group, but family restaurant tend to be more expensive, making them even more sensitive to consumer budgets and the health of the economy. Fast-food restaurants, being less dependent on macroeconomic condition, are better defensive investment plays.

For restaurant stocks; Applebee's, Olive Garden and Cracker Barrel are the most popular choices for resident living in the Tract308. More people prefer to have dinner at place like steak house on the weekend.

Convenience is a major part of the fast-food business model. Compare to only 35.8% of population in Tract 308 go to steak house on weekdays, 62.7% of people go to fast-food or drive-in restaurants through Monday to Friday. The top three ranking of fast-food restaurants in the area are McDonald's, Burger King and Taco Bell. In addition, rather than home delivery or eat in the fast-food restaurant, over half of total consumers tend to take-out or drive-through.

Restaurant stocks have a number of attractive attributes. But for our corridor study area, which major connect Baker College and Owosso downtown, fast-food restaurants seems have more market potential.

3.4 RETAIL GOODS AND SERVICES EXPENDITURES

The spending potential index (SPI) for nearly every category in each of the 1, 3, and 5 mile radii were between 25-35 points lower than the national average. This means that residents in and around the corridor spend less than the average American. ESRI breaks neighborhoods into 65 distinctive tapestry segments based on socio-economic and demographic characteristics. The top tapestry segments of the area are “Rustbelt Traditions”, “Salt of the Earth”, and “Great Expectations”. Descriptions from ESRI on each of these segments can be found in the appendix.

Combining the three segments shows what spending habits the residents of Owosso have, and how they spend their time. Generally speaking, Owosso residents have lived, worked, and shopped at the same, close-by place, for years. They tend to be conservative shoppers, mostly shopping at big-box supermarkets and discount department stores. Recreational activities such as outdoor sports or canoeing/kayaking are popular. Residents do not frequently dine out, but family-oriented restaurants such as Bob Evans and Cracker Barrel are the first choice. Country music, NASCAR, and weekly sitcoms are popular forms of entertainment.

TABLE 3-6: TAPESTRY DATA

	1 mile	3 mile	5 mile
Rustbelt Traditions	14.7%	9.3%	7.8%
Salt of the Earth	X	12.2%	17.0%
Great Expectations	18.3%	9.3%	7.8%

3.5 RETAIL MARKETPLACE PROFILE

The data gathered from ESRI allowed our team to gain insight on the demand or retail potential, the supply or retail sales, and also the retail gap. A negative retail gap indicated there is a surplus, or customers are being drawn in from outside the designated area for these goods. A positive retail gap means there is leakage; residents within the designated area are traveling outside the area to acquire the goods. This also indicates an opportunity for additional retail sales for the given good.

TABLE 3-7: MARKETPLACE OVERVIEW

	1-Mile			3-Mile			5-Mile		
	Demand	Supply	Gap	Demand	Supply	Gap	Demand	Supply	Gap
Retail Trade	\$57.4 mil	\$63.3 mil	-\$5.8 mil	\$162 mil	\$227 mil	-\$65.4 mil	\$194 mil	\$256 mil	-\$62.3 mil
Food & Drink	\$9.4 mil	\$10.8 mil	-\$1.5 mil	\$25.7 mil	\$24.7 mil	\$ 1 mil	\$30.9 mil	\$26.2 mil	\$4.7 mil
Total	\$66.8 mil	\$74.1 mil	-\$7.3 mil	\$187 mil	\$252 mil	-\$64.4 mil	\$225 mil	\$282 mil	-\$57.6 mil

As indicated by ESRI, there is a surplus for both Retail Trade and Food & Drink in the one-mile radius of the Washington Street Corridor, leaving a total surplus of \$7.3 million in sales. In the three-mile radius there is a surplus of sales in retail of \$65.4 million, but a leakage of \$1 million in food and drink. The trend continues with a leakage of Food & Drink sales in the five-mile radius as well at \$4.7 million. As for retail trade in the five-mile radius there is a \$62 million surplus in sales.

TABLE 3-8: ONE-MILE MARKETPLACE PROFILE

One-Mile Radius			
Industry Group	Demand	Supply	Retail Gap
Motor Vehicle & Parts Dealers	\$13 million	\$11.4 million	\$1.6 million
Furniture & Home Furnishings Stores	\$1.6 million	\$400,000	\$1.2 million
Food & Beverage Stores	\$13.6 million	\$7.6 million	\$6 million
Grocery Stores	\$13.3 million	\$6.6 million	\$6.7 million
General Merchandise Stores	\$8.1 million	\$16.6 million	-\$8.5 million
Department Stores	\$4.3 million	\$3 million	\$1.3 million
Food Services & Drinking Places	\$9.4 million	\$10.8 million	-\$1.4 million
Full-Service Restaurants	\$3.8 million	\$3.7 million	\$100,000

Within a one-mile radius of the Washington Street Corridor the largest positive retail includes the following industries: Food & Beverage Stores (specifically grocery stores), Motor Vehicle & Parts Dealers, and Furniture & Home Furnishings Stores. Grocery Stores have a demand of \$13.3 million, and there is only a supply of \$6.6 million in sales, leaving a retail gap of \$6.7 million. Motor Vehicle & Parts dealers have a demand of \$13 million, but only a supply of \$11.4 million in sales, with a remaining retail gap of \$1.6 million. A smaller industry, yet a similar retail gap (\$1.2 million) is Furniture & Home Furnishings Stores; with a demand of \$1.6 million and a supply of \$400,000. Both General Merchandise Stores and Food & Drinking Places have a negative retail gap. However, they both include sub-categories in which the retail gap is positive. For General Merchandise there is a retail gap of -\$8.5 million, but Department Stores have a positive retail gap of \$1.3 million. Likewise, Food & Drinking Places have a retail gap of -\$1.4 million, however demand exceeds supply for full-service restaurants in the one-mile radius, leaving a retail gap of \$100,000.

TABLE 3-9: THREE-MILE MARKETPLACE PROFILE

Three-Mile			
Industry Group	Demand	Supply	Retail Gap
Motor Vehicle & Parts Dealers	\$37.3 million	\$49.3 million	-\$12 million
Furniture & Home Furnishings Stores	\$4.4 million	\$2.1 million	\$2.3 million
Food & Beverage Stores	\$37.9 million	\$57.9 million	-\$20 million
Clothing & Clothing Accessories Stores	\$3.3 million	\$2 million	\$1.3 million
Food Services & Drinking Places	\$25.8 million	\$24.8 million	\$1 million
Full-Service Restaurants	\$10.5 million	\$9.1 million	\$1.4 million

Stepping out to a three-mile radius of the corridor our team noticed some dramatic changes in the retail gaps of a number of industries. For starters, the three-mile radius now shows a surplus in Motor Vehicle & Parts Dealers with a retail gap of -\$12 million, in comparison to the positive retail gap in the one-mile radius area. Food & Beverage Stores also displayed a change from a positive retail gap in a one-mile radius to a negative retail gap of \$20 million. Furniture & Home Furnishings as well as Full-Service Restaurants kept their positive retail gaps, at \$2.3 million and \$1.4 million respectively. An industry that showed a positive retail gap of \$1.3 million in sales in the three-mile radius, but had a negative retail gap in the one-mile radius is Clothing & Clothing Accessories.

TABLE 3-10: FIVE-MILE MARKETPLACE PROFILE

Five-Mile			
Industry Group	Demand	Supply	Retail Gap
Motor Vehicle & Parts Dealers	\$44.7 million	\$51.3 million	-\$6.6 million
Furniture & Home Furnishings Stores	\$5.3 million	\$2.2 million	\$3.1 million
Electronics & Appliance Stores	\$6.6 million	\$5.1 million	\$1.5 million
Food & Beverage Stores	\$45.4 million	\$82.9 million	-\$37.5 million
Clothing & Clothing Accessories Stores	\$4 million	\$2 million	\$2 million
Food Services & Drinking Places	\$30.9 million	\$26.2 million	\$4.7 million

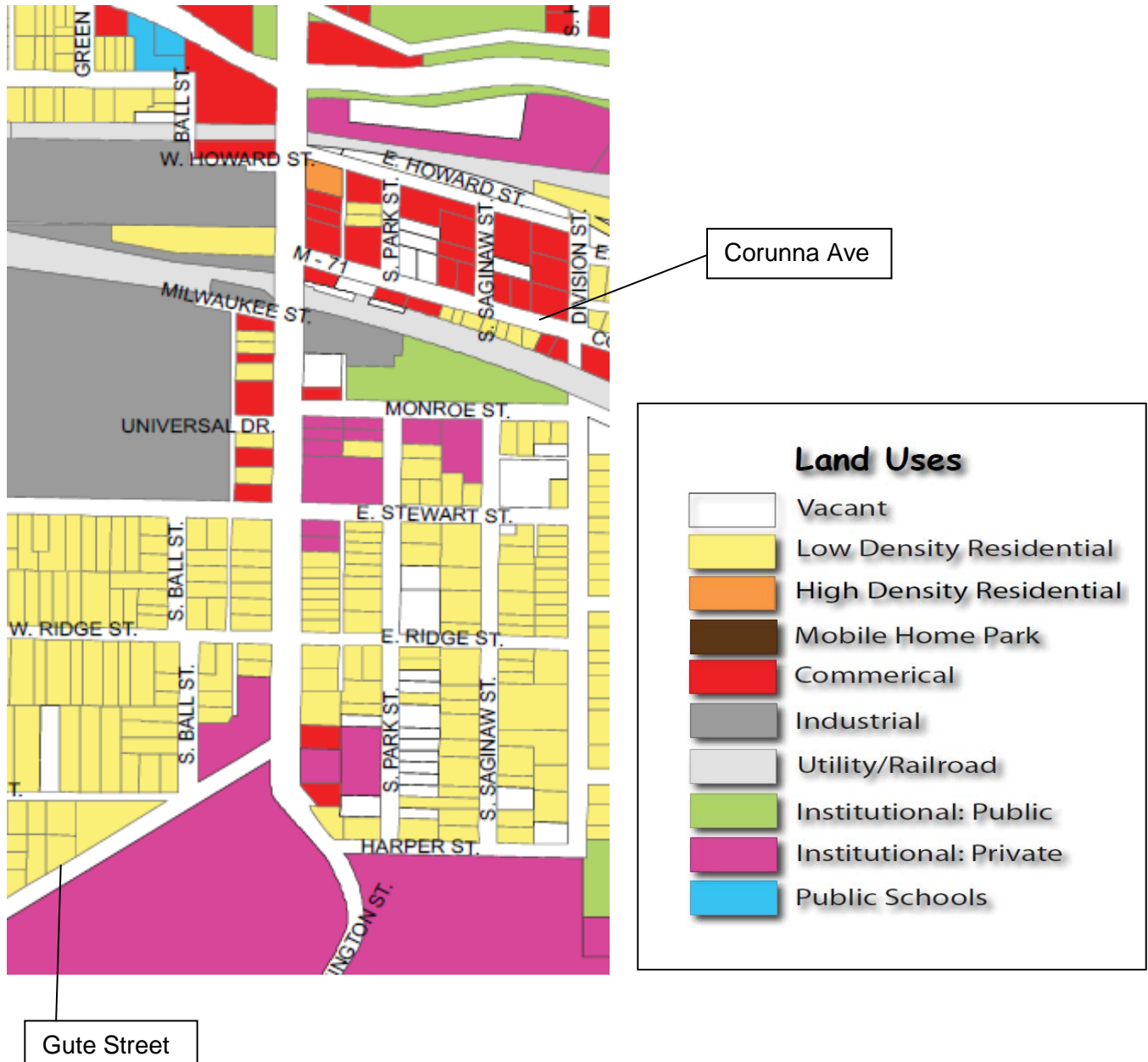
Within a five-mile radius of the Washington Street Corridor our team observed that the largest retail gaps occurred in Food Services & Drinking Places, Furniture & Home Furnishings Stores, Clothing & Clothing Accessories Stores, and Electronics & Appliance Stores. Food & Drinking places have a demand of \$30.9 million but a supply of only \$26.2 million, leaving a retail gap of \$4.7 million. Furniture & Home Furnishings has a demand of \$5.3 million and a supply of \$2.2 million, meaning \$3.1 million in sales is leaving the five-mile radius of the Washington Street Corridor. Likewise, Clothing & Clothing Accessories shows a retail gap of \$2 million in sales. An Electronics & Appliance store is an industry that shows a positive retail gap in only the five-mile radius (\$1.5 million in sales). Both Food & Beverage Stores and Motor Vehicle & Parts Dealers continued their trend of a negative retail gap. This means the supply is already larger than the demand within the five-mile radius.

CHAPTER 4 :

Streetscape, Roadway and Housing Inventory & Assessment

- 4.0 Complete Streets Introduction
- 4.1 Assessment Tool
- 4.2 Sidewalk/Walkway Conditions
- 4.3 Sidewalk Width
- 4.4 Obstructions (Continuity)
- 4.5 Handicap Accessibility
- 4.6 Signage
- 4.7 Amenity Zone / Landscaping
- 4.8 Lighting
- 4.9 Bike Lanes
- 4.10 Traffic Flow (Lanes / Speed Limit)
- 4.11 Street Parking
- 4.12 Access Management (Off-Street Parking / Curb Cuts)
- 4.13 Housing Conditions
- 4.14 Setback

PARCEL MAP – LAND USE



ZONING MAP



**City of Owosso
Zoning
August 2011**

Zoning Classification

- R-1 One Family Residential
- R-2 Two Family Residential
- RM-1 Multiple Family Residential
- RM-2 Multiple Family Residential
- OS-1 Office Service District
- B-1 Local Business
- B-2 Planned Shopping Center
- B-3 Central Business District
- B-4 General Business District
- I-1 Light Industrial
- I-2 General Industrial
- C-OS Conservation-Open Space
- PUD Planned Unit Development
- P-1 Parking

As a team we completed original research on streetscapes, complete streets and policies and plans associated with both. Based upon this research we identified the aspects and criteria that are relevant to the scope of work for the Washington Street Corridor study. We then used the compiled criteria to assess and inventory the existing conditions of the streetscape, including assets, deficiencies, needs and opportunities within the project boundaries. The assessment was completed on a block by block level and rated on a scale produced by our practicum team. The completion of this complete streets assessment will allow business owners, community members and public officials to gain insight on how the Washington Street corridor may be revitalized.

4.0 COMPLETE STREETS INTRODUCTION

The Safe and Complete Streets Act of 2011* defines a complete street as a “roadway that safely accommodates all travelers, particularly public transit users, bicyclists, pedestrians (including individuals of all ages and individuals with mobility, sensory, neurological, or hidden disabilities), motorists and freight vehicles, to enable all travelers to use the roadway safely and efficiently.” It allows pedestrians, bicycles, and motorists of all ages and mobility to travel through or across the street. A community’s Complete Streets policy is based on a collective vision that provides design guidance. Provided by the City of Owosso, the Washington corridor vision is to promote connectivity and create a gateway through design elements that fit within the context of the corridor. We will use the following criteria to provide an assessment and inventory of the current conditions. This assessment, in conjunction with other data, will allow us to make supported recommendations for the streetscape of the Washington Street Corridor.

BLOCK MAPS – LAND USE



Corunna Ave to Howard St



Ridge St to Stewart St



Universal St to Corunna Ave



Gute St to Ridge St



Stewart St to Monroe St

KEY

- PRIVATE INSTITUTIONAL
- LOW DENSITY RESIDENTIAL
- COMMERCIAL
- HIGH DENSITY RESIDENTIAL
- INDUSTRIAL

4.1 ASSESSMENT TOOL

This is the scale that our team developed in order to rate the criteria established in relation to the existing conditions and qualities of the Washington Street Corridor.

Streetscape	Condition	Poor - Numerous cracks or holes making the surface uneven and difficult to navigate. Loose gravel and vegetation beginning to grow through the surface
		Fair - Slightly damaged in areas, mostly level surface. Easy to traverse by most pedestrians
		Good - No cracks or damaged areas, very close to entirely level. Easy to travel for all pedestrians
	Obstructions	Poor - Misplaced streetscape elements frequently hinder or alter the route of foot traffic
		Fair - The placement of objects on the sidewalk occasionally create slight inconveniences to pedestrians
		Good - Elements necessary to the streetscape are positioned in a way that is visually appealing and do not affect the flow of pedestrian traffic
	Handicap Accessibility	Poor - No additional measures have been taken to provide for the accessibility of handicapped individuals
		Fair - Some elements of a handicap accessible streetscape are present
		Good - Sufficient elements of a handicap accessible sidewalk have been implemented in order to provide safety for disabled pedestrians
	Signage	Poor - Little to no signage in the area; existing signage either damaged or worn.
		Fair - Some signage exists and is visible from multiple modes of transportation
		Good - A full wayfinding system has been implemented; signage is completely visible from all modes of transportation
	Amenity Zone / Landscaping	Poor - Limited green space between sidewalk and road; no plantings and limited street trees
		Fair - Green space present with limited or no plantings; occasional street trees
		Good - Consistent green space buffer including plantings and street trees.
	Lighting	Poor - No street lighting exists in the area
		Fair - Limited lighting
		Good - Ample streetlights providing a well illuminated walkway safe for pedestrians at any time of the day

Roadway	Bike Lanes / Parking	Poor - No clearly identifiable bike lanes, minimal opportunity to park and lock bicycle
		Fair - Bike lanes are present but lack connectivity, some opportunities are available to park a bicycle
		Good - Bike lanes are easily identified and connectivity is properly executed. Bike racks are available and located within proximity to attractions
	On Street Parking	Poor - On street parking is either not available, or is not clearly marked and visible for vehicular traffic
		Fair - Some on street parking is available in intermittent segments indicated by signage
		Good - On street parking has been implemented; either parallel or diagonal. Signage clearly indicates parking opportunities
	Curb Cuts	Poor - There are a large number of curb cuts on the block (5-10); congestion of traffic is a result
		Fair - Curb cuts are limited on the block (2-4); congestion occurs at peak traffic times
		Good - There is one or no curb cuts. Access to businesses or parking is implemented through alleys or rear driveways
Single Family Residential	General Condition	Poor - Homes need maintenance; structural, exterior conditions or landscaping could use improvement in terms of aesthetics
		Fair - Some homes could use exterior or structural improvements. Landscaping has been used to make the homes aesthetically viable
		Good - The current housing is in good condition. The exterior of the homes and landscaping have an aesthetic standard
	Setback	Large - Setback 50ft or greater; frontage is separated from street by parking lot or open space
		Medium - Setback 10-50ft
		Small - Or no setback 0-10ft

4.2 SIDEWALK / WALKWAY CONDITIONS

Sidewalks provide definite connections to and from different areas of the community, allowing pedestrians to travel safely and conveniently. Most commonly a sidewalk is positioned in parallel with a street, therefore measures must be taken to account for the interactions between pedestrians and vehicular traffic. The surface of the sidewalk or walkway is a large component of the convenience and safety. If the surface is not level or has many cracks or holes it becomes less safe for pedestrians to travel, especially those with disabilities or limited physical abilities. Cracks or holes can be caused by weather conditions, such as repetitive freezing and thawing in the winter months. Also, the type of landscaping or vegetation can cause damage to the sidewalk or walkway. For instance, shallow rooting plants can cause disruption beneath the bed of the sidewalk. Thus, deep-rooting plants or trees have proven to be a more viable option in proximity to a sidewalk. Surface materials are most often concrete or asphalt, however the use of bricks or cobblestone can be explored in order to give the walkway a more aesthetic appeal. If this type of surfacing is implemented, best practice implies the necessity for a solid bed layer underneath composed of asphalt or concrete



TABLE 4-1: SIDEWALK / WALKWAY CONDITIONS

Sidewalk / Walkway Conditions	
West Side of S Washington - Gute to Ridge	Good
East Side of S Washington - Gute to Ridge	Good
West Side of S Washington - Ridge to Stewart	Good
East Side of S Washington - Ridge to Stewart	Good
West Side of S Washington - Stewart to Universal	Good
East Side of S Washington - Stewart to Monroe	Good
West Side of S Washington - Universal to Milwaukee	Fair
East Side of S Washington - Monroe to Corunna	Fair
West Side of S Washington - Milwaukee to Howard	Good
East Side of S Washington - Corunna to Howard	Good
West Side of S Washington - Howard to River	Good
East Side of S Washington - Howard to River	Good
North Side of Corunna Ave – S Park St to Washington St	Good
South Side of Corunna Ave – S Park St to Washington St	Good

4.3 SIDEWALK WIDTH

Aside from the condition of a sidewalk or walkway, the safety or convenience of a sidewalk is determined by its width. Key components in determining an appropriate sidewalk width include the location, or surroundings and the volume of pedestrian traffic. In a residential area the minimum sidewalk width is 5 feet, in order to accommodate flow of pedestrians in each direction, as well as handicapped pedestrians. However, in more dense residential areas and pedestrian oriented retail areas, sidewalks are generally wider, ranging from 8 to 12 feet in width. The sidewalk portion of the streetscape is composed of the pedestrian zone, the amenity/green zone (buffer), curb zone and in retail areas the store frontage zone.

FIGURE 4-1: STREETSCAPE

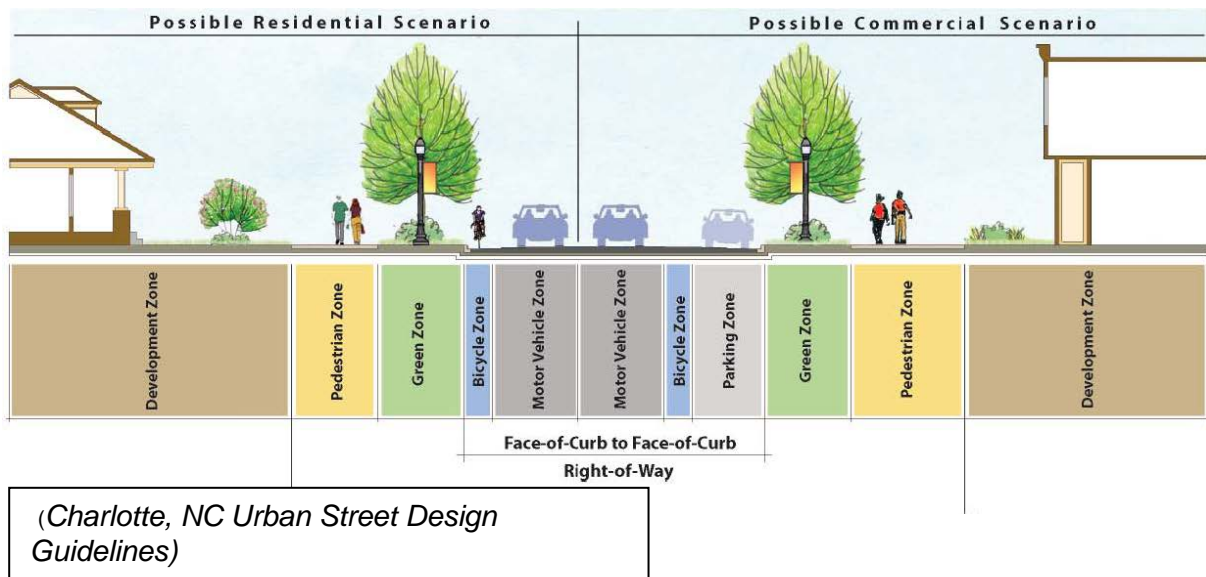


TABLE 4-2: SIDEWALK WIDTH

Sidewalk Width	
West Side of S Washington - Gute to Ridge	4-5ft
East Side of S Washington - Gute to Ridge	4-5ft
West Side of S Washington - Ridge to Stewart	4ft
East Side of S Washington - Ridge to Stewart	4ft
West Side of S Washington - Stewart to Universal	4ft
East Side of S Washington - Stewart to Monroe	4ft
West Side of S Washington - Universal to Milwaukee	5ft
East Side of S Washington - Monroe to Corunna	5ft
West Side of S Washington - Milwaukee to Howard	5ft
East Side of S Washington - Corunna to Howard	5ft
West Side of S Washington - Howard to River	5ft
East Side of S Washington - Howard to River	5ft
North Side of Corunna Ave - S Park St to Washington St	5ft
South Side of Corunna Ave - S Park St to Washington St	5ft





We found that the sidewalk is most often four feet in width in front of residential uses. Whereas, the width in front of commercial, institutional or industrial uses is five feet. The increase in width from four feet to five creates a more comfortable walking experience especially when accompanied by others, or when there is increased pedestrian traffic.

4.4 OBSTRUCTIONS (CONTINUITY)

FIGURE 4-2: OBSTRUCTION SCORE



Obstructions within a sidewalk are detrimental to the walkability of the pathway. An obstruction can be a variety of different objects such as a fire hydrant, a telephone pole. In order for an object to qualify as an obstruction it should disrupt the continuity of the walkway, creating an obstacle that requires pedestrians to alter their path, or navigate around.

KEY	
	Good
	Fair
	Poor
	N/A

Example Score: Poor



Example Score: Good



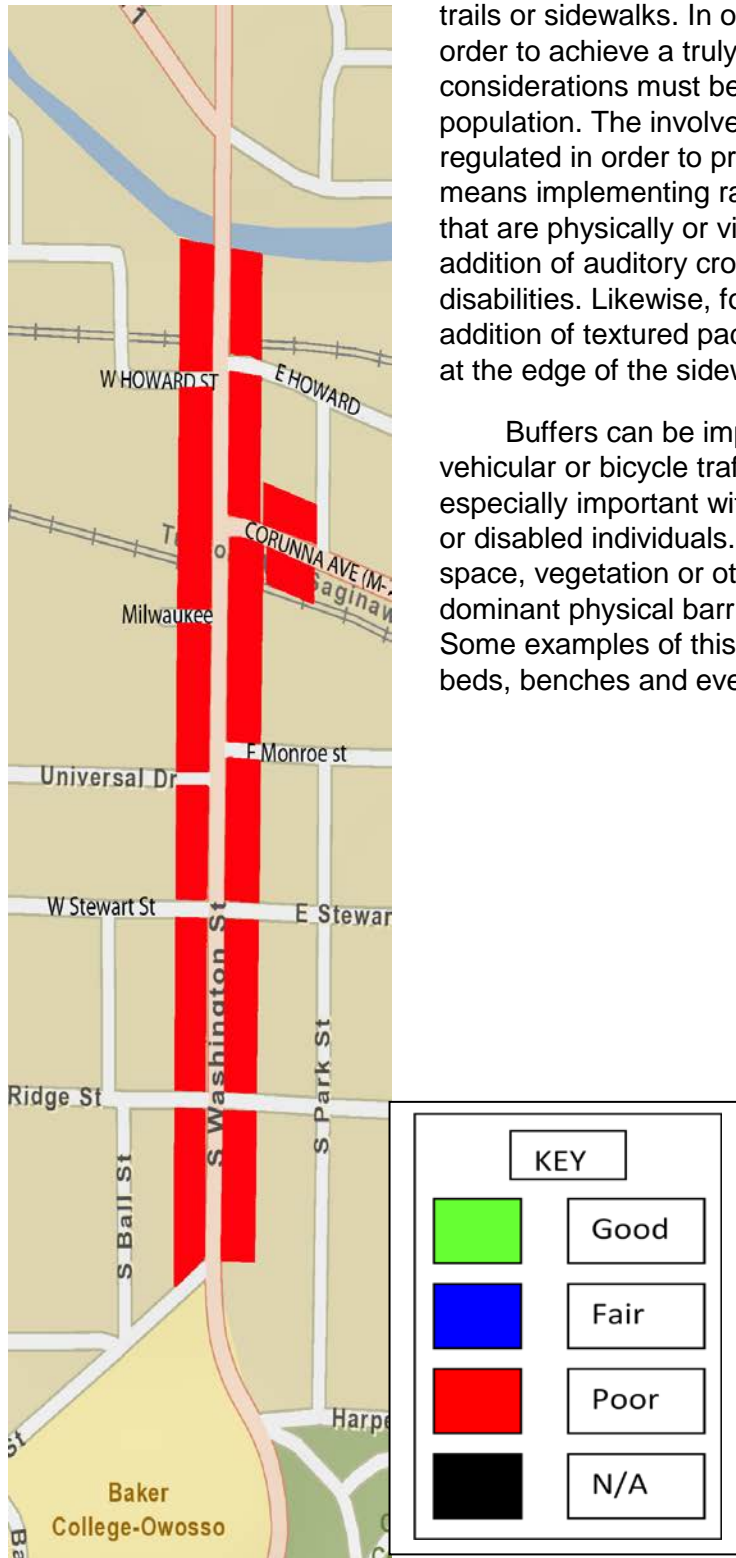
TABLE 4-3: OBSTRUCTIONS (CONTINUITY)

Obstructions (Continuity)	
West Side of S Washington - Gute to Ridge	Good
East Side of S Washington - Gute to Ridge	Good
West Side of S Washington - Ridge to Stewart	Good
East Side of S Washington - Ridge to Stewart	Good
West Side of S Washington - Stewart to Universal	Good
East Side of S Washington - Stewart to Monroe	Good
West Side of S Washington - Universal to Milwaukee	Good
East Side of S Washington - Monroe to Corunna	Fair
West Side of S Washington - Milwaukee to Howard	Fair
East Side of S Washington - Corunna to Howard	Poor
West Side of S Washington - Howard to River	Poor
East Side of S Washington - Howard to River	Poor
North Side of Corunna Ave - S Park St to Washington St	Good
South Side of Corunna Ave - S Park St to Washington St	Good

The Southern portion of the corridor is mostly residential, meaning the sidewalks are normally four feet in width. It was in these areas that we found little to no obstructions within the walkway of pedestrians. As you head North on Washington Street, and the uses become more mixed, the sidewalk widens but it also envelops various streetscape elements such as a fire hydrant or telephone poles. Overall, the obstructions that do exist in the walkways of the Washington Street corridor are limited.

4.5 HANDICAP ACCESSIBILITY

FIGURE 4-3: HANDICAP ACCESSIBILITY SCORE



Walkability is a term used to describe how easily pedestrians are able to physically navigate an area by footpath, trails or sidewalks. In order to uphold a standard of equity in order to achieve a truly walkable community, certain considerations must be taken for the handicap and disabled population. The involvement between vehicular traffic must be regulated in order to provide safety for all individuals. This means implementing ramps at pedestrian crossings for those that are physically or visually disabled. For example, the addition of auditory crossing signals for those with hearing disabilities. Likewise, for visually impaired individuals the addition of textured pads cautions to the individual that they are at the edge of the sidewalk.

Buffers can be implemented to provide a cushion between vehicular or bicycle traffic and pedestrian traffic. This is especially important within the considerations of handicapped or disabled individuals. A buffer can be as simple as green space, vegetation or other landscaping. However, a more dominant physical barrier provides additional safety from traffic. Some examples of this include trees, light posts, raised garden beds, benches and even trash receptacles.

Example Score: Poor



Example Score: Good



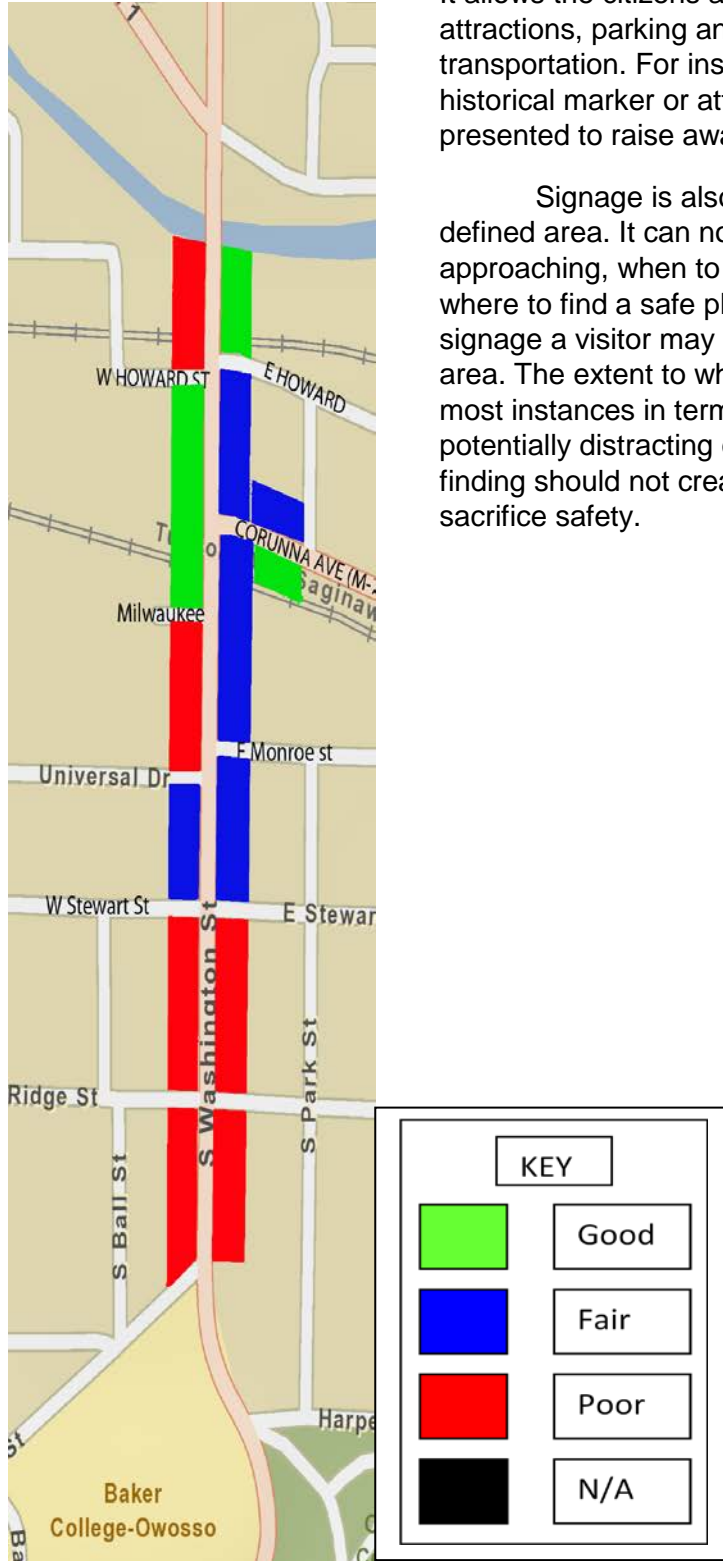
TABLE 4-4: HANDICAP ACCESSIBILITY CONDITIONS

Handicap Accessibility	
West Side of S Washington - Gute to Ridge	Poor
East Side of S Washington - Gute to Ridge	Poor
West Side of S Washington - Ridge to Stewart	Poor
East Side of S Washington - Ridge to Stewart	Poor
West Side of S Washington - Stewart to Universal	Poor
East Side of S Washington - Stewart to Monroe	Poor
West Side of S Washington - Universal to Milwaukee	Poor
East Side of S Washington - Monroe to Corunna	Poor
West Side of S Washington - Milwaukee to Howard	Poor
East Side of S Washington - Corunna to Howard	Poor
West Side of S Washington - Howard to River	Poor
East Side of S Washington - Howard to River	Poor
North Side of Corunna Ave - S Park St to Washington St	Poor
South Side of Corunna Ave - S Park St to Washington St	Poor

Within the Washington Street corridor we did not observe any measures that have been taken or practices that have been implemented that significantly increase the handicap accessibility of the area. The only consistent asset we found regarding the handicap accessibility is the large buffer of green space throughout the primarily residential areas. This buffer creates a safer experience for all pedestrians including those that are handicapped. A majority of the crosswalks had curb ramps, but are not indicated by warning strips. There is a lot of room for improvement to make the Washington Street corridor more handicap accessible.

4.6 SIGNAGE / WAYFINDING - PED, BIKE, AUTO

FIGURE 4-4:
SIGNAGE/WAYFINDING
SCORE



Proper signage and way finding will allow pedestrians, bicyclists, and automobile users to navigate the area with ease. It allows the citizens and visitors to locate businesses, services, attractions, parking and connections through any mode of transportation. For instance, if there is a nearby park, trail, historical marker or attraction easy to locate signage should be presented to raise awareness of its existence.

Signage is also essential to the public safety within a defined area. It can notify automobiles when a crosswalk is approaching, when to stop or yield to pedestrians, or even where to find a safe place to park their vehicle. Without proper signage a visitor may become confused and lose interest in the area. The extent to which signage is displayed is regulated in most instances in terms of size, elevation, placement and potentially distracting colors or lighting. Signage and way finding should not create any distractions and therefore sacrifice safety.

Example Score: Poor



Example Score: Good



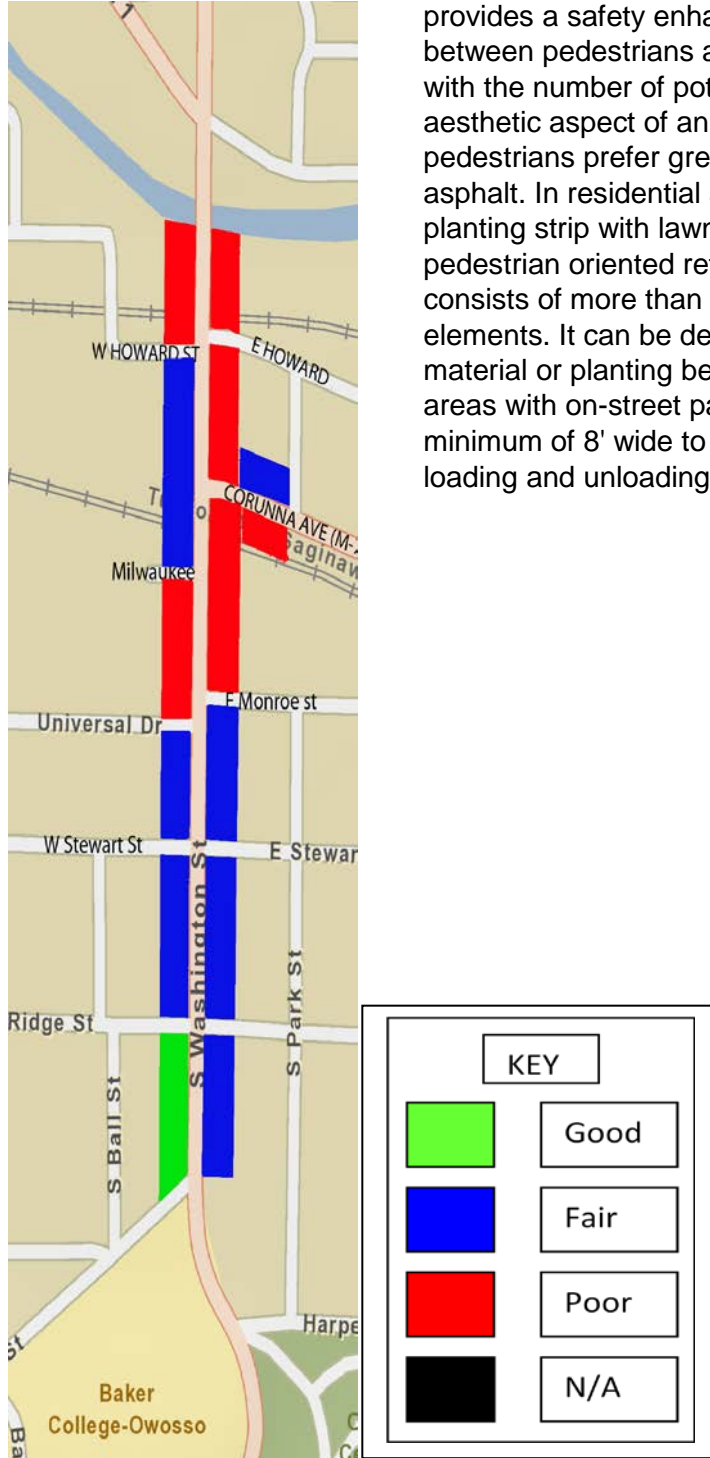
TABLE 4-5: SIGNAGE / WAYFINDING CONDITIONS

Signage / Wayfinding	
West Side of S Washington - Gute to Ridge	Poor
East Side of S Washington - Gute to Ridge	Poor
West Side of S Washington - Ridge to Stewart	Poor
East Side of S Washington - Ridge to Stewart	Poor
West Side of S Washington - Stewart to Universal	Fair
East Side of S Washington - Stewart to Monroe	Fair
West Side of S Washington - Universal to Milwaukee	Poor
East Side of S Washington - Monroe to Corunna	Fair
West Side of S Washington - Milwaukee to Howard	Good
East Side of S Washington - Corunna to Howard	Fair
West Side of S Washington - Howard to River	Poor
East Side of S Washington - Howard to River	Good
North Side of Corunna Ave - S Park St to Washington St	Fair
South Side of Corunna Ave - S Park St to Washington St	Good

The signage and wayfinding along the Washington Street corridor consists of automobile traffic indicators such as speed limit signs, no parking signs, and signs directing to the M-71 state highway. There is a lack of signage indicating the attractions of the areas (i.e. downtown area, Steam Railroading Institute). Without this type of signage a first time visitor is discouraged from navigating these areas. Likewise, there is very little signage directed towards the pedestrian traveler.

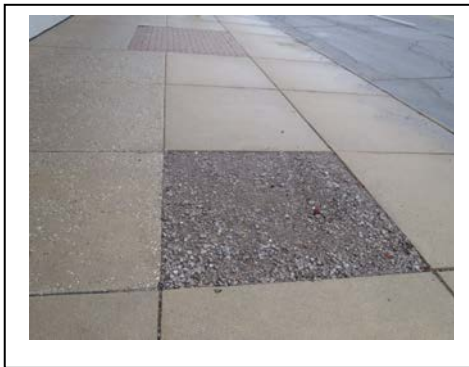
4.7 AMENITY ZONE / LANDSCAPING

FIGURE 4-5: AMENITY ZONE/
LANDSCAPING SCORE



The amenity/planting zone is located between the curb and pedestrian zone. It separates vehicular and pedestrian traffic, providing a buffer and aesthetic enhancement. The buffer provides a safety enhancement; increasing the distance between pedestrians and vehicles has an inverse relationship with the number of potential interactions between the two. The aesthetic aspect of an amenity or planting zone implies that pedestrians prefer green space over additional concrete or asphalt. In residential areas, the amenity zone may be a planting strip with lawn and street trees. In commercial or pedestrian oriented retail areas, the amenity zone usually consists of more than landscaping such as pedestrian elements. It can be delineated visually by a change in paving material or planting benches, trash receptacles, lighting, etc. In areas with on-street parking, the amenity zone should be a minimum of 8' wide to enable space for car doors to open for loading and unloading.

Example Score: Poor



Example Score: Good



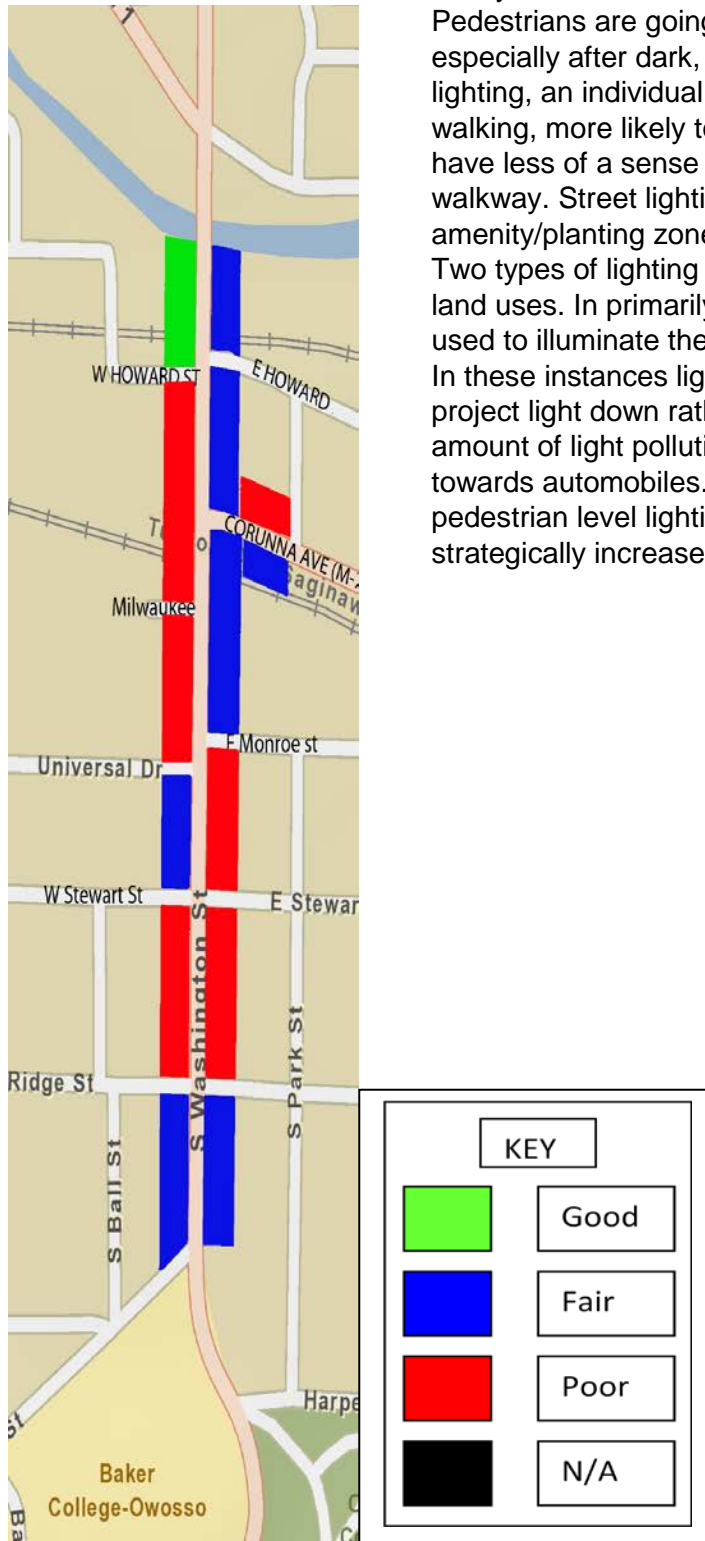
TABLE 4-6: AMENITY ZONE / LANDSCAPING CONDITIONS

Amenity Zone / Landscaping	
West Side of S Washington - Gute to Ridge	Good
East Side of S Washington - Gute to Ridge	Fair
West Side of S Washington - Ridge to Stewart	Fair
East Side of S Washington - Ridge to Stewart	Fair
West Side of S Washington - Stewart to Universal	Fair
East Side of S Washington - Stewart to Monroe	Fair
West Side of S Washington - Universal to Milwaukee	Poor
East Side of S Washington - Monroe to Corunna	Poor
West Side of S Washington - Milwaukee to Howard	Fair
East Side of S Washington - Corunna to Howard	Poor
West Side of S Washington - Howard to River	Poor
East Side of S Washington - Howard to River	Poor
North Side of Corunna Ave - S Park St to Washington St	Fair
South Side of Corunna Ave - S Park St to Washington St	Poor

Throughout the primarily residential blocks of the corridor, the amenity zone consists of green space. There are a number of various different plantings, mainly trees in this green space. On the North side of the Washington St and Corunna Ave intersection, the amenity zone consists of concrete or asphalt along with utility poles. Little landscaping has been done to improve the space aesthetically; elements of inviting places have not been implemented (i.e. benches, trash cans, plantings). Creating inviting places caters to pedestrian traffic and increased activity.

4.8 LIGHTING

FIGURE 4-6: LIGHTING SCORE



The lighting used along a corridor has implications on the safety and walkable viability of a complete street corridor. Pedestrians are going to be more willing to travel by foot, especially after dark, if the corridor is well lit. Without proper lighting, an individual will not be able to see where he or she is walking, more likely to trip and fall. Likewise, the individual will have less of a sense of security and safety without a well lit walkway. Street lighting is commonly located within the amenity/planting zone between the curb and pedestrian zone. Two types of lighting can be used depending on the adjacent land uses. In primarily residential areas or routes, lighting is used to illuminate the sidewalk rather than the entire corridor. In these instances light posts, not exceeding 12 feet in height, project light down rather than outwards. This reduces the amount of light pollution and the amount of glare projected towards automobiles. Some practices indicate that using pedestrian level lighting in more dense commercial areas strategically increases safety and visibility for the pedestrians.

Example Score: Poor



Example Score: Good



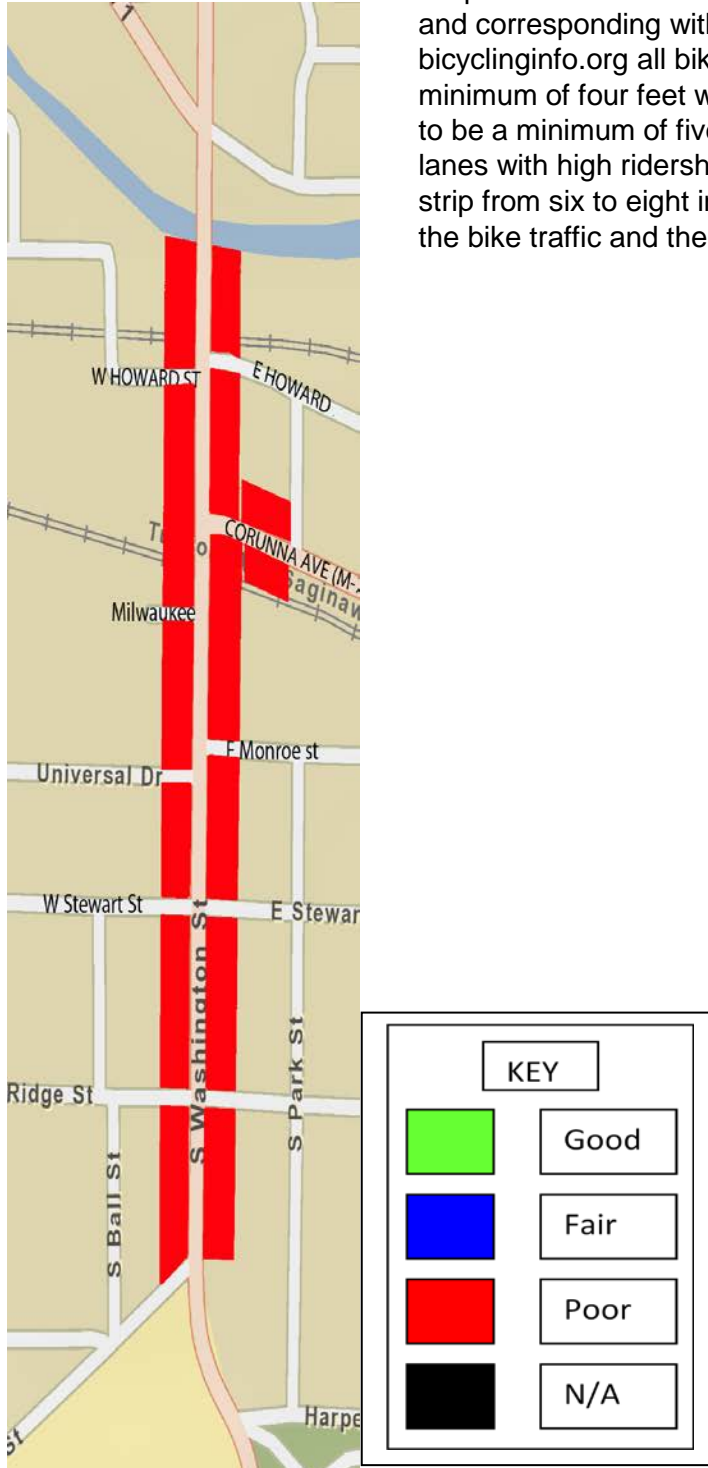
TABLE 4-7: LIGHTING CONDITIONS

Lighting	
West Side of S Washington - Gute to Ridge	Fair
East Side of S Washington - Gute to Ridge	Fair
West Side of S Washington - Ridge to Stewart	Poor
East Side of S Washington - Ridge to Stewart	Poor
West Side of S Washington - Stewart to Universal	Fair
East Side of S Washington - Stewart to Monroe	Poor
West Side of S Washington - Universal to Milwaukee	Poor
East Side of S Washington - Monroe to Corunna	Fair
West Side of S Washington - Milwaukee to Howard	Poor
East Side of S Washington - Corunna to Howard	Fair
West Side of S Washington - Howard to River	Good
East Side of S Washington - Howard to River	Fair
North Side of Corunna Ave - S Park St to Washington St	Poor
South Side of Corunna Ave - S Park St to Washington St	Fair

The extent of lighting on the corridor is a good start. There are various over-hanging lights placed above Washington St or above an intersection. Some occurrences of this implementation of lighting include between Gute and Ridge Streets, and between Stewart and Universal Streets. Lighting specific to the roadway is beneficial to the overall safety of the shared space; it provides improved vision at night to drivers and pedestrians that wish to cross the roadway. On the West Side of Washington St North of Howard St, we found the best example of walkway lighting within the corridor. There are two lamp posts placed in front of the Riverside Auto showroom; these lights illuminate more of the sidewalk than the overhanging lights do, and create a sense of safety after dark. There is room for improvement in regards to lighting along the Washington St corridor.

4.9 BIKE LANES

FIGURE 4-7: BIKE LANES SCORE



Designated bike lanes provide sufficient access and mobility by bicycle in an urban area, if executed properly. Proper bike lanes are accessible on both sides of the street, and corresponding with the flow of vehicle traffic. According to bicyclinginfo.org all bike lanes with no adjacent curb must be a minimum of four feet wide. Bike lanes adjacent to parking need to be a minimum of five feet wide. Additionally successful bike lanes with high ridership are easily identifiable; a solid white strip from six to eight inches wide should be placed between the bike traffic and the vehicular traffic.

Example Score: Poor



Example Score: Good



newtonstreets.blogspot.com

TABLE 4-8: BIKE LANE CONDITIONS

Bike Lanes	
West Side of S Washington - Gute to Ridge	Poor
East Side of S Washington - Gute to Ridge	Poor
West Side of S Washington - Ridge to Stewart	Poor
East Side of S Washington - Ridge to Stewart	Poor
West Side of S Washington - Stewart to Universal	Poor
East Side of S Washington - Stewart to Monroe	Poor
West Side of S Washington - Universal to Milwaukee	Poor
East Side of S Washington - Monroe to Corunna	Poor
West Side of S Washington - Milwaukee to Howard	Poor
East Side of S Washington - Corunna to Howard	Poor
West Side of S Washington - Howard to River	Poor
East Side of S Washington - Howard to River	Poor
North Side of Corunna Ave - S Park St to Washington St	Poor
South Side of Corunna Ave - S Park St to Washington St	Poor

There is an absence of bike lanes throughout the entire study area. This is restricting the safe use of bicycles as transportation along the corridor.

4.10 TRAFFIC FLOW (LANES / SPEED LIMIT)

The speed of traffic is one of the most essential components to a complete street. If pedestrians or bicyclists do not feel safe with the rate at which automobile traffic is moving, they will not be as inclined to travel that particular route. Regulating the speed of vehicles can be done with speed limits, reduced lane width or traffic signals.

Additionally, traffic flow can be easily manipulated by the way the road is stripped, and the number of cross streets and driveways on the designated roadway. Creating distinct turn lanes in appropriate situations can eliminate confusion of the driver and traffic congestion. However, with a center turn lane, and a large number of driveways the flow of traffic may be negatively affected.

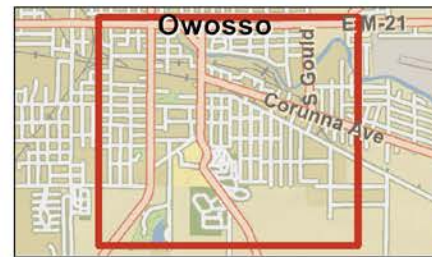
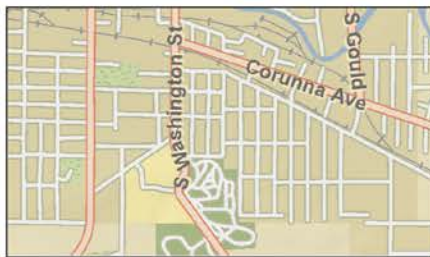
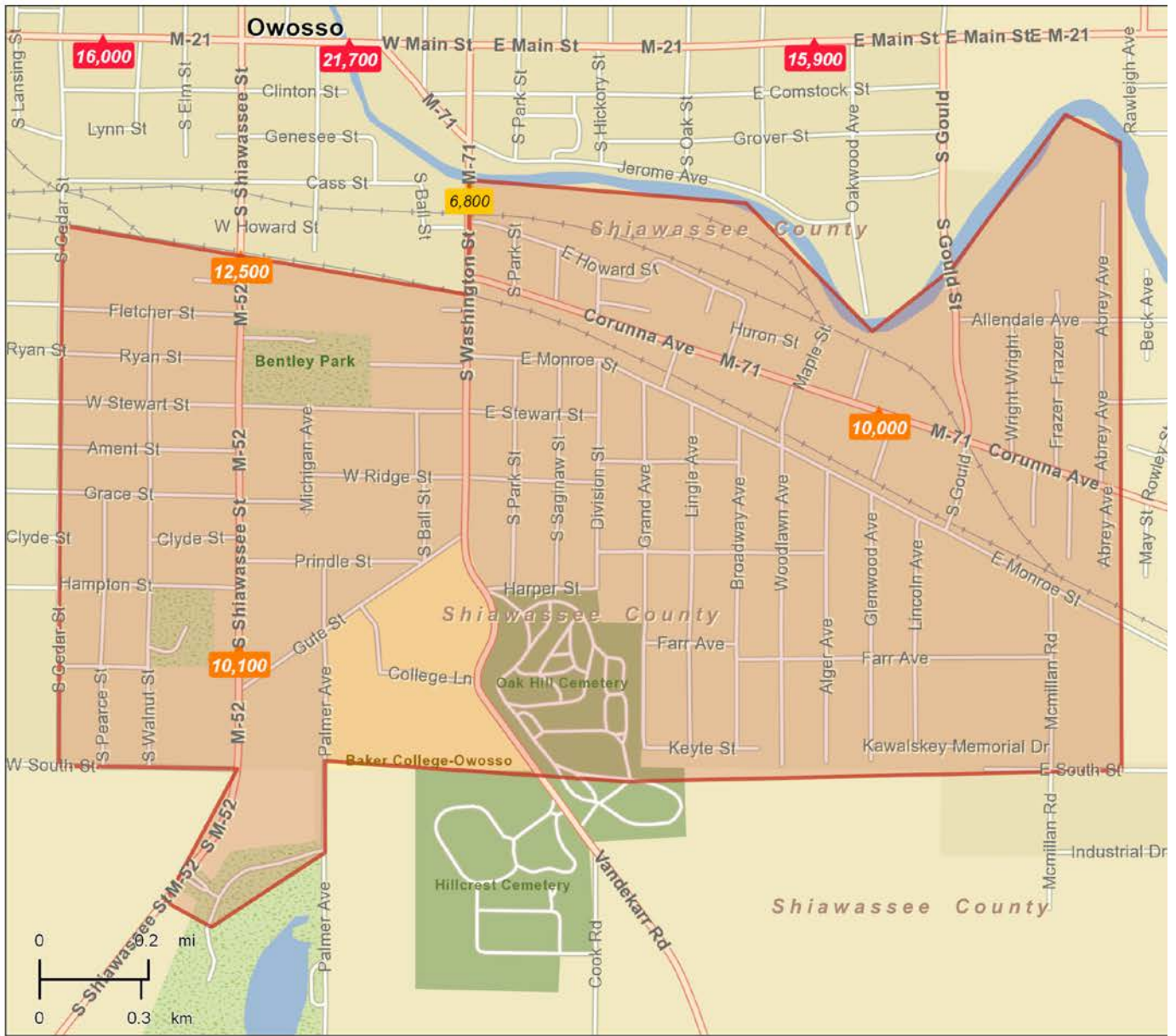
The Washington St corridor is maintained by the City of Owosso, but the operations of the M-71 portion is controlled by the Michigan Department of Transportation (MDOT). The corridor regulations under MDOT include design, signage and usage. Michigan Public Act 134 and 135 of 2010 established a Complete Streets Advisory Council for the State of Michigan. Under Act 135, Complete Streets have been defined as “roadways planned, designed, and constructed to provide appropriate access to all legal users in a manner that promotes safe and efficient movement of people and goods whether by car, truck, transit, assistive device, foot, or bicycle.”

The traffic count for the M-71 portion of Washington St Corridor is 6,800 vehicles per day. The traffic along M-71 between Owosso and Corunna is 10,000 vehicles per day and is a 5 minute drive time. Downtown Owosso has a traffic count of 21,700 vehicles per day. Interstate I-69 is a 15 minute drive time away and the traffic picks up from 10,100 at the M-52 gateway to 12,500 just before reaching downtown.



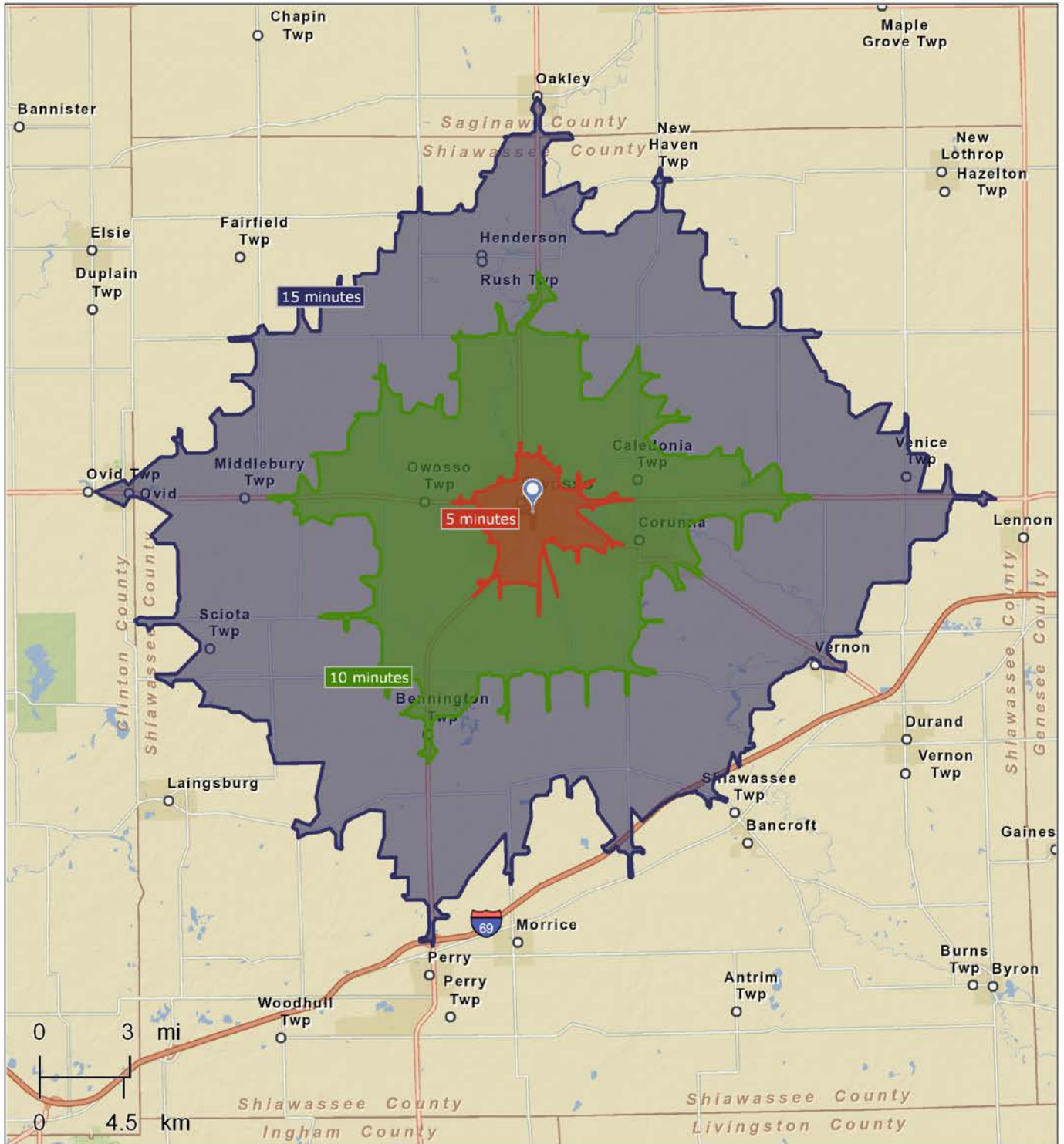
Traffic Count Map

26155030800_1
26155030800 (261550308.00)
Geography: Census Tracts



Source: ©2012 Market Planning Solutions, Inc.

February 02, 2011



January 23, 2013

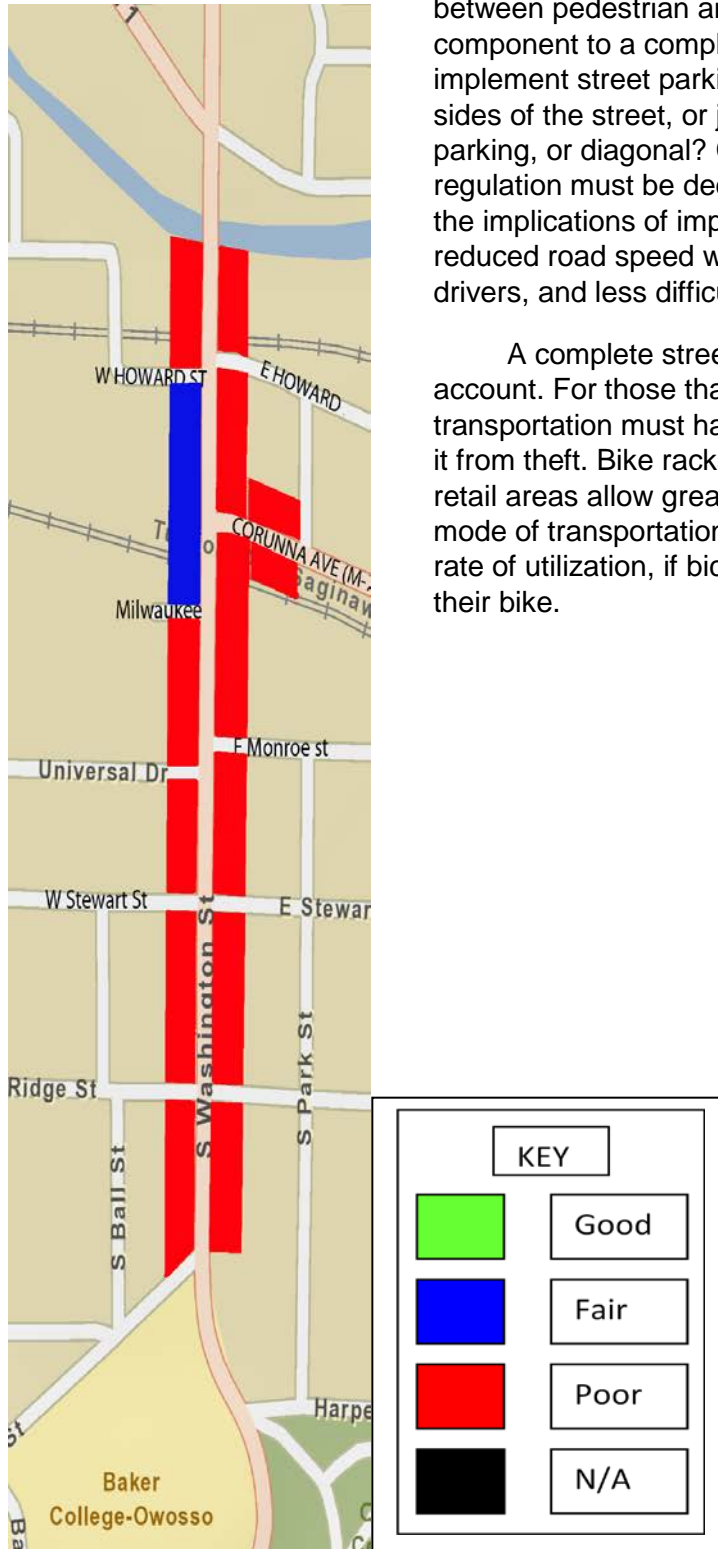
TABLE 4-9: TRAFFIC FLOW

Traffic Flow		
	Lanes	Speed Limit
West Side of S Washington - Gute to Ridge	2	25mph
East Side of S Washington - Gute to Ridge	2	25mph
West Side of S Washington - Ridge to Stewart	4	25mph
East Side of S Washington - Ridge to Stewart	4	25mph
West Side of S Washington - Stewart to Universal	4	25mph
East Side of S Washington - Stewart to Monroe	2 to 3	25mph
West Side of S Washington - Universal to Milwaukee	3	25mph
East Side of S Washington - Monroe to Corunna	3	25mph
West Side of S Washington - Milwaukee to Howard	4	25mph
East Side of S Washington - Corunna to Howard	4	25mph
West Side of S Washington - Howard to River	4	25mph
East Side of S Washington - Howard to River	4	25mph
North Side of Corunna Ave – S Park St to Washington St	4	35mph
South Side of Corunna Ave – S Park St to Washington St	4	35mph

There are a few issues our team noticed throughout the corridor in regards to the traffic flow. On numerous occasions it is difficult to determine the number of lanes. Sometimes it appears to be four lanes but it is only striped for two. Also, as vehicles approach the downtown area of Owosso from the South there are two designated turn lanes. First for a left hand turn lane onto Stewart St; the right hand lane being for through traffic or right hand turns onto Stewart. However, by the time a vehicle reaches the Corunna Ave intersection the right hand lane becomes right turn only. This may be creating confusion to the drivers; likewise because there is a traffic light at the Corunna Ave intersection, and another a hundred yards South on the other side of the railroad tracks. The speed limit throughout the Washington St corridor is 25 miles per hour but it is only posted once. The potential automobile user may overlook this sign, and therefore not follow the posted speed.

4.11 STREET PARKING

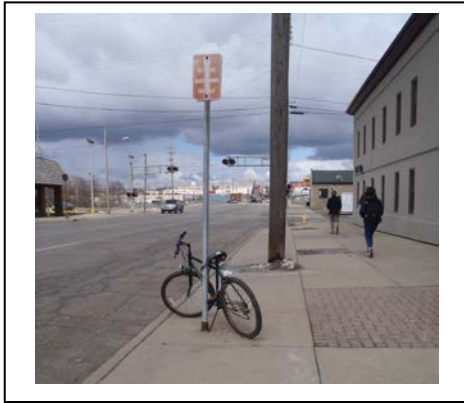
FIGURE 4-8: STREET PARKING SCORE



Street automobile parking increases accessibility to businesses on a given road, and it can also provide a buffer between pedestrian and vehicular traffic; an essential component to a complete street. There are many ways to implement street parking; for instance will the parking be both sides of the street, or just one? Will the spaces be parallel parking, or diagonal? Certain time restrictions and methods of regulation must be decided. If on-street parking is implemented the implications of impeding traffic flow must be considered. A reduced road speed will make the parking more inviting for drivers, and less difficult to pull or back out from.

A complete street takes all modes of transportation into account. For those that choose a bicycle as their method of transportation must have a place to park their bike, and prevent it from theft. Bike racks within close proximity to commercial or retail areas allow greater access to businesses by yet another mode of transportation. Bike lanes will not receive the same rate of utilization, if bicyclists have no viable option for parking their bike.

Example Score: Poor



Example Score: Good

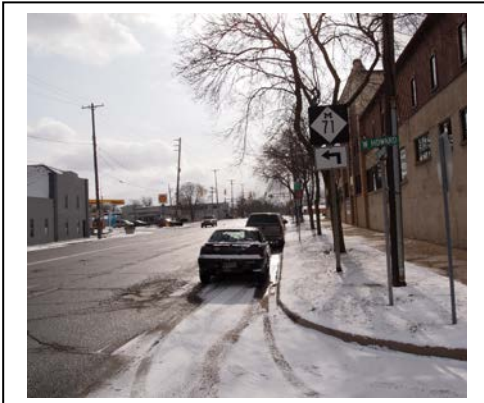


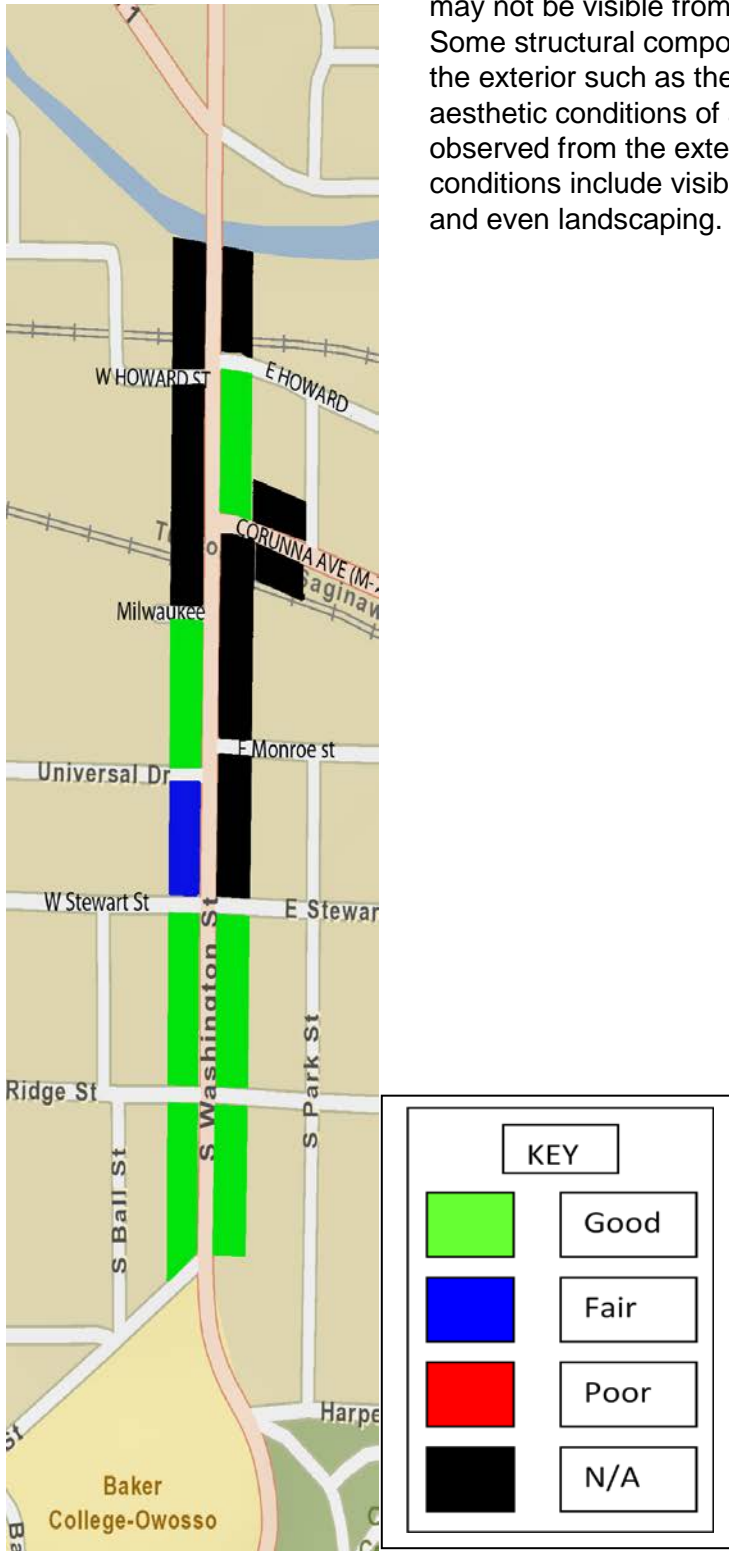
TABLE 4-10: STREET PARKING CONDITIONS

Street Parking	
West Side of S Washington - Gute to Ridge	Poor
East Side of S Washington - Gute to Ridge	Poor
West Side of S Washington - Ridge to Stewart	Poor
East Side of S Washington - Ridge to Stewart	Poor
West Side of S Washington - Stewart to Universal	Poor
East Side of S Washington - Stewart to Monroe	Poor
West Side of S Washington - Universal to Milwaukee	Poor
East Side of S Washington - Monroe to Corunna	Poor
West Side of S Washington - Milwaukee to Howard	Fair
East Side of S Washington - Corunna to Howard	Poor
West Side of S Washington - Howard to River	Poor
East Side of S Washington - Howard to River	Poor
North Side of Corunna Ave - S Park St to Washington St	Poor
South Side of Corunna Ave - S Park St to Washington St	Poor

The only block to receive a 'Fair' rating is the West side of Washington from Milwaukee to Howard because it is the only place on the entire corridor of which the parking is clearly designated. There are stretches of Washington St, in the primarily residential areas, where it is difficult to determine whether there are four lanes or just two. This may be because the outside lanes are designated for street parking; however signage for this use is lacking, and may go unnoticed to a visitor of the area.

4.12 HOUSING CONDITIONS

FIGURE 4-9: HOUSING CONDITION SCORE



The conditions of a home include structural and aesthetic components. If a home has structural deficiencies they may or may not be visible from the exterior depending on the severity. Some structural components of a home can be assessed from the exterior such as the roof, windows and overall rigidity. The aesthetic conditions of a home on the other hand are easily observed from the exterior. Some examples of aesthetic conditions include visible deterioration of paint, siding, windows and even landscaping.

Example Score: Poor



Example Score: Good



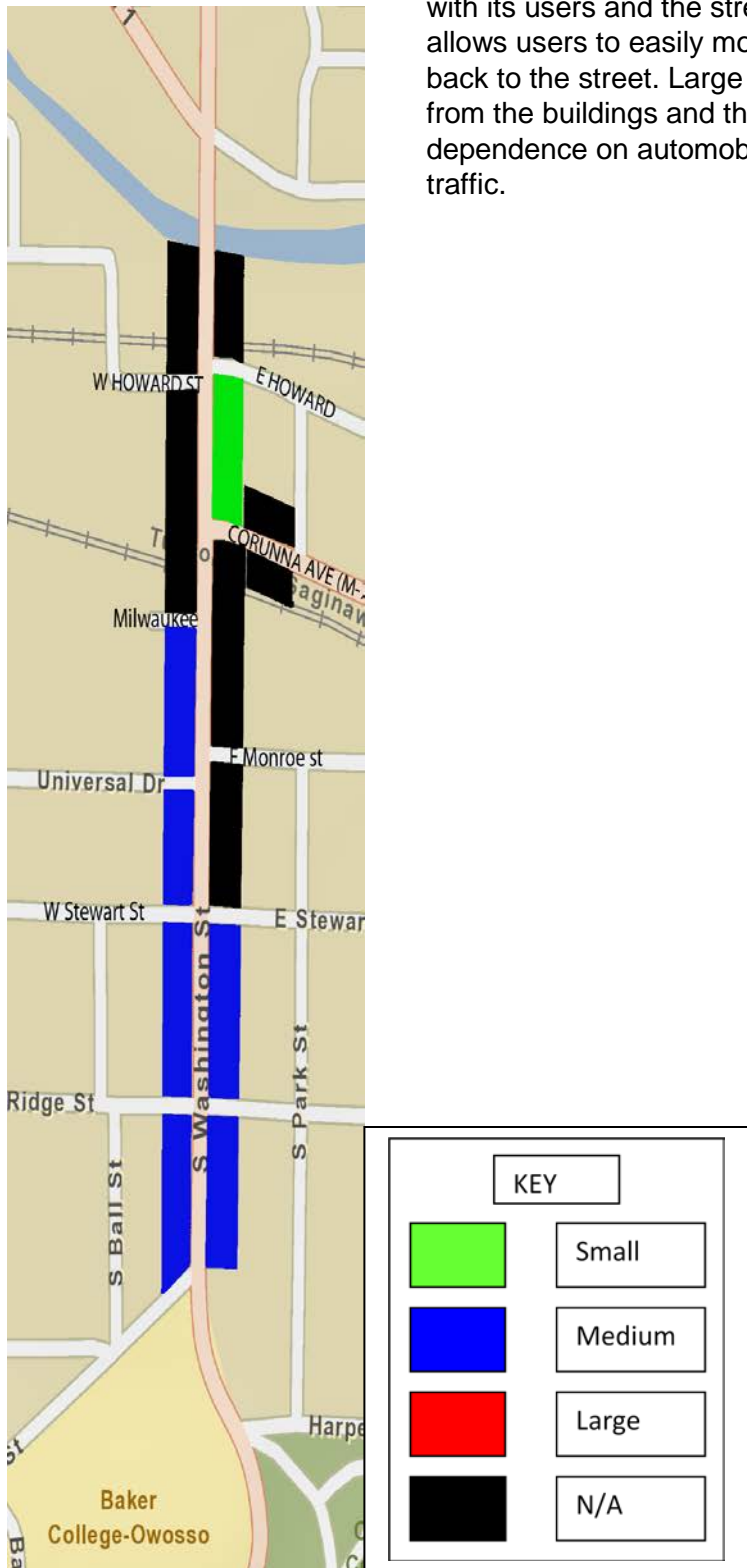
TABLE 4-11: HOUSING CONDITIONS

Housing Conditions	
West Side of S Washington - Gute to Ridge	Good
East Side of S Washington - Gute to Ridge	Good
West Side of S Washington - Ridge to Stewart	Good
East Side of S Washington - Ridge to Stewart	Good
West Side of S Washington - Stewart to Universal	Fair
East Side of S Washington - Stewart to Monroe	N/A
West Side of S Washington - Universal to Milwaukee	Good
East Side of S Washington - Monroe to Corunna	N/A
West Side of S Washington - Milwaukee to Howard	N/A
East Side of S Washington - Corunna to Howard	Good
West Side of S Washington - Howard to River	N/A
East Side of S Washington - Howard to River	N/A
North Side of Corunna Ave - S Park St to Washington St	N/A
South Side of Corunna Ave - S Park St to Washington St	N/A

The blocks where housing is not present received a 'N/A' rating, for not applicable. The blocks where housing does exist received mostly 'good' ratings, as most of the homes are in exceptional condition. It is clear that the homeowners take responsibility of the upkeep of their homes.

4.13 SETBACK

FIGURE 4-10: SETBACK SCORE



The setbacks of buildings greatly affect their interaction with its users and the street. Close proximity with the street allows users to easily move from the street to the building and back to the street. Large setbacks can disconnect the streets from the buildings and their users. This may result in a greater dependence on automobiles and a decrease in pedestrian traffic.

Example Score: Large

Example Score: Small



TABLE 4-12: SETBACK (RESIDENTIAL)

Setback	
West Side of S Washington - Gute to Ridge	Medium
East Side of S Washington - Gute to Ridge	Medium
West Side of S Washington - Ridge to Stewart	Medium
East Side of S Washington - Ridge to Stewart	Medium
West Side of S Washington - Stewart to Universal	Medium
East Side of S Washington - Stewart to Monroe	N/A
West Side of S Washington - Universal to Milwaukee	Medium
East Side of S Washington - Monroe to Corunna	N/A
West Side of S Washington - Milwaukee to Howard	N/A
East Side of S Washington - Corunna to Howard	Small
West Side of S Washington - Howard to River	N/A
East Side of S Washington - Howard to River	N/A
North Side of Corunna Ave – S Park St to Washington St	N/A
South Side of Corunna Ave – S Park St to Washington St	N/A

Again, since this was an assessment of the setback of residential properties, we only assessed the blocks that contain residential uses. Therefore some of the blocks received a 'N/A' rating. Most of the blocks of homes have medium setbacks, only one block (East Side of Washington – Corunna to Howard) That received a 'small' setback rating. This is because of the multiple family residential use located on the block.

