An aerial photograph of a harbor area, likely Benton Harbor and St. Joseph, Michigan. The image shows a large body of water with a bridge in the background, several buildings along the shore, and various boats in the water. The text 'TWIN CITIES HARBOR' is overlaid on the image in large, bold, blue letters. The letters are filled with a gradient from light blue to dark blue. The background image is slightly faded to make the text stand out.

# TWIN CITIES HARBOR

A Study of Potential in Benton Harbor & St. Joseph, MI

3	CONCEPT VIEWS
18	INTRODUCTION
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66	EXISTING VIEWS



Concept view of Twin Cities Harbor looking West  
Refer to pages 41 and 66



Concept view of consolidated port seen from M.63 Blossomland Bridge  
Refer to pages 25 and 67



Concept view of mixed-use marina as seen from M.63 Blossomland Bridge  
Refer to pages 31 and 67



Concept view of Marina Island waterfront looking East  
Refer to pages 27 and 68



Concept view of Marina Island redevelopment and Dock 63 commercial port  
Refer to pages 31 and 69



Concept view of mixed-use redevelopment of Central Dock  
Refer to pages 37 and 70



Concept view of Main Street Benton Harbor looking West  
Refer to pages 45 and 71



Concept view of Main Street and Riverview Drive mixed-use redevelopment  
Refer to pages 33 and 72



Concept view of revitalized Benton Harbor Canal looking West  
Refer to pages 53 and 73



Concept view towards Riverview Drive from 12th Street  
Refer to pages 51 and 74



Concept view looking North along Riverview Drive  
Refer to pages 47 and 75



Concept view of County Courthouse Area Redevelopment on Port Street looking East  
Refer to pages 57 and 76



Concept view of Inner Harbor from redeveloped Courthouse Bluff  
Refer to pages 39 and 77



Concept view of County Courthouse Area redevelopment  
Refer to pages 55 and 78

# TWIN CITIES HARBOR

A Study of Potential in Benton Harbor & St. Joseph, MI

# INTRODUCTION

“This harbor site has great potential!”

This observation was repeated often and by everyone consulted in this study. Locals and visiting professionals quickly recognize the natural advantages of this stunning location on the St. Joseph River near Lake Michigan. Tucked between charming Downtown St. Joseph and the innovative Benton Harbor Arts District, it is home to the County Courthouse, a Fortune 500 company, and a deepwater port with Great Lakes freighters, yachts, anglers, and harbor view restaurants. A true blessing for the Twin Cities.

Yet a journey across the Bicentennial Bridge also reveals acres of vacant land, empty buildings, and underutilized waterfront opportunities. Most have gotten used to it and simply assume that this is the way it must be due to its industrial, natural, and political characteristics. Others are frustrated by the barrier it presents between the two cities, or worse, don't even see it at all. This study challenges all of these assumptions and asks:

“Is this the **BEST** we can do?”

Building cities presents choices about stewardship and leadership. Especially when times and circumstances produce

sweeping changes, such leadership requires a longer view and the ability to look at new circumstances as an opportunity to reboot our thinking. Unfortunately, we are often overwhelmed by the complexity of conditions and resign ourselves to waiting for something or someone else to shift the paradigm.

“Don't wait for the big thing; **ACT TODAY.**”

To help initiate action, the City of Benton Harbor led a stakeholder steering committee of diverse private and public leaders representing both cities.<sup>1</sup> They commissioned this study via a four-month process led by Andrews University in collaboration with the Southwest Michigan Planning Commission.<sup>2</sup> Its purpose is to inform public debate with facts and illustrative concepts - more like a “menu” of useful strategies than a master plan.

This study suggests that the Twin Cities harbor area is on the cusp of great transformations. Recent private investment in both cities, generational and demographic changes, market trends, shipping activity, lifestyle preferences, tourism, the arts, political cooperation, the funding climate - all of this points to new opportunities to uplift both cities as one prosperous, healthy, whole community. This is the humble aim of this work: to inform and inspire action.

Beginning in late August 2015, the stakeholder steering committee met six times to review site analysis and design, and to offer critique and direction.



In September 2015, the team worked with nationally renowned professional experts in the fields of retail development, transportation, and stormwater management to prepare preliminary and realistic design concepts.<sup>3</sup>



Throughout October 2015, while refining design concepts, the team also met with various focus groups on site to discuss special interests - as shown here with concerned residents of the Old Edgewater neighborhood.<sup>4</sup>



In November 2015, the in-process work was presented during a well-attended public open house at The Harbor Shores Inn. The study was completed in December of the same year.



1. A complete list of stakeholder steering committee members is shown on the next page.

2. More details about the team is included on page 87.

3. A complete list of sub-consultants is shown on page 87

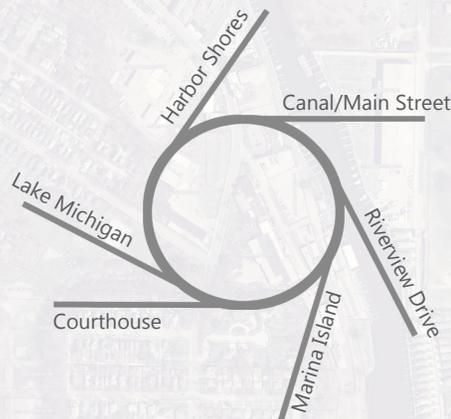
4. A complete list of focus group participants is shown on page 87.

# Study Goals

+ To honor and celebrate the essence of Benton Harbor and St. Joseph, both in their distinct and shared identities. + To study the existing working harbor and conceptual changes to its location, operations, and site design. + To study how the harbor area can support viable commercial shipping and recreational boating in the future. + To study how the harbor area can shape an attractive gateway to the cities of Benton Harbor and St. Joseph. + To study how the harbor can be embraced by both the community and tourism, including water and trail users. + To study how the harbor can support increased real estate values for residential property in and around the area. + To study how the harbor can be an aesthetic asset to Benton Harbor and St. Joseph. + To study how the harbor can help to support human and environmental health. + To study development concepts that are economically sustainable.



The **600 acre** study area focuses on the harbor and adjacent strategic and underutilized properties. It crosses both cities, but not all of the more than 500 acres of land within it were studied equally. The irregular boundary reflects the turbine-like shape of the place and the natural, economic, and community assets that are tied to it.



- Stakeholder Steering Committee**
- Commissioner Mary Alice Adams  
City of Benton Harbor
  - Peter Colovos  
Principal, The Prairie Real Estate Group
  - Dan Fette  
Berrien County Community Development Dept
  - Mayor Mike Garey  
City of St. Joseph
  - Stephannie Harvey-Vandenberg  
Benton Harbor Parks Conservancy
  - Mayor James Hightower  
City of Benton Harbor
  - John Hodgson  
Manager, City of St. Joseph
  - Commissioner Edward Isom  
City of Benton Harbor
  - Bob McFeeter  
Evergreen Management/Harbor Shores
  - D. Jeffrey Noel  
VP, Whirlpool Corporation
  - Marvin Raglon  
Benton Harbor DDA
  - Commissioner Dr. Jeffrey Richards  
City of St. Joseph
  - Lynn Todman  
Lakeland Health
  - Darwin Watson  
Manager, City of Benton Harbor
  - Marja Winters (committee chair)  
Assistant City Manager, City of Benton Harbor

# PORT CITIES

Commercial shipping has a foundational history in St. Joseph and Benton Harbor. These pages offers some context to the critical economic impact it has on both cities, the county, and the state. While freight volumes vary due to factors presented here, this study promotes a vibrant and sustainable port for the future.

To understand the commercial role of the harbor (officially known as the St. Joseph Harbor), it helps to understand how closely it is tied to the maintenance, funding, and construction of

## ROADS.

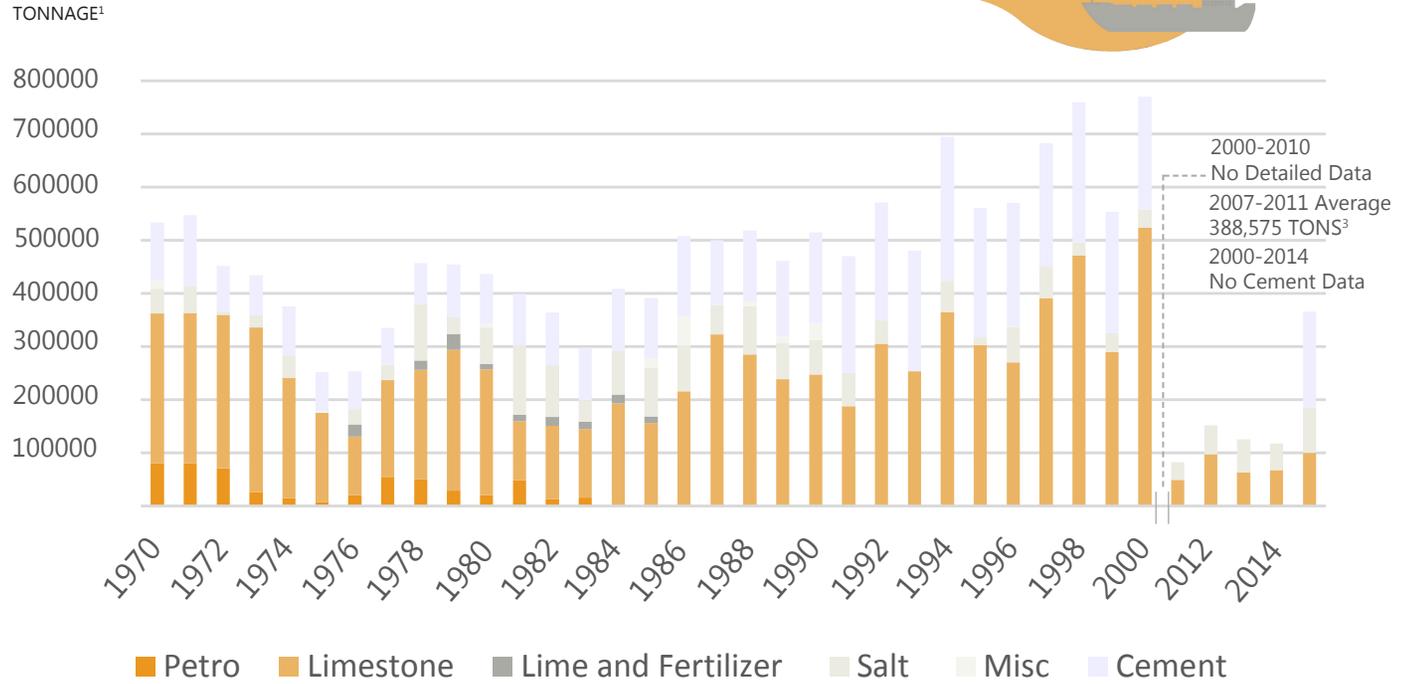
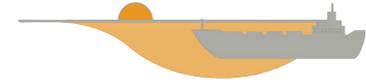


Service area which benefits from shipping through the Twin Cities

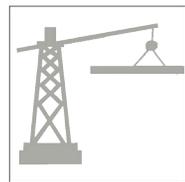
45% of harbor salt is used by Michigan DOT<sup>4</sup>

# \$26 Million

2015 Projected Port Revenue<sup>2</sup>

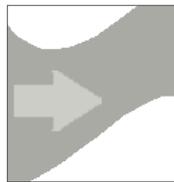


### VARIABLES



**MARKET DEMAND**  
For iron

When steel and iron are in demand, ships prioritize these, which reduces tonnage in the Twin Cities



**SHOALING**  
+ UPSTREAM RUN-OFF

Precipitation, farming, and stormwater practices impact the amount of silt and organics down-river



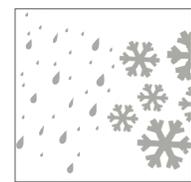
**FUNDING**  
+ SHIPPING LEGISLATION

Government legislation and funding priorities can impact dredging and international shipping



**ROAD CONSTRUCTION**  
+ MAINTENANCE

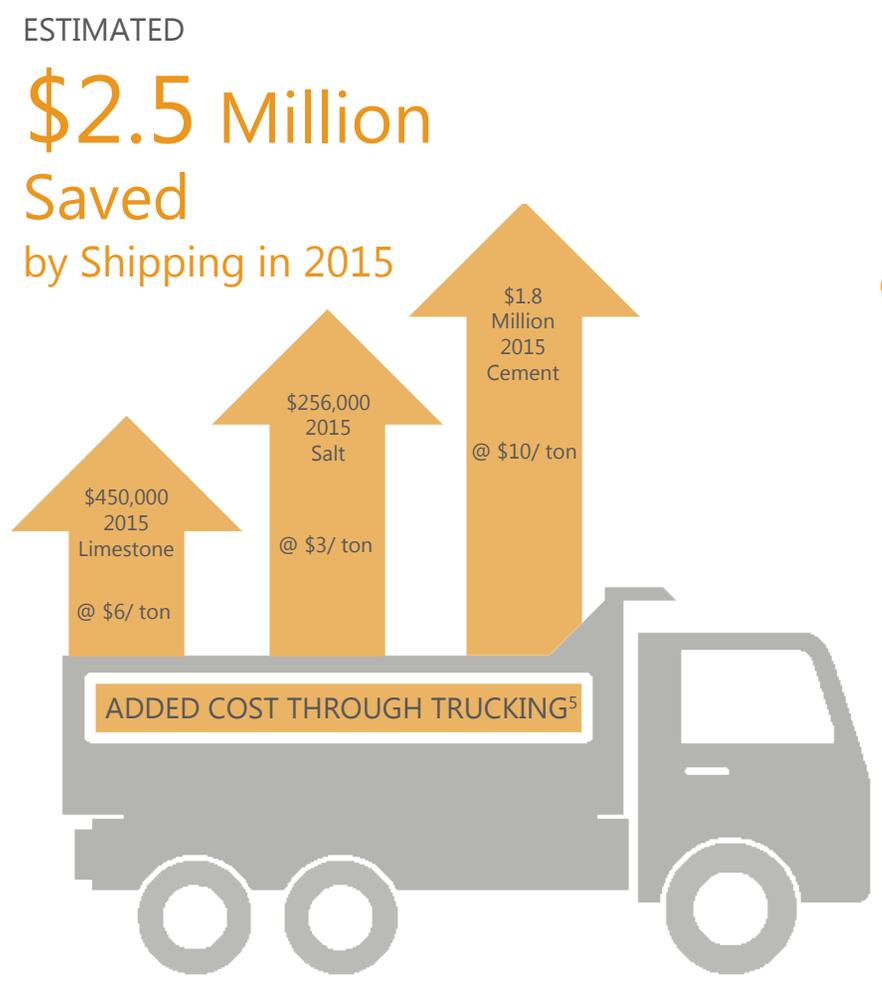
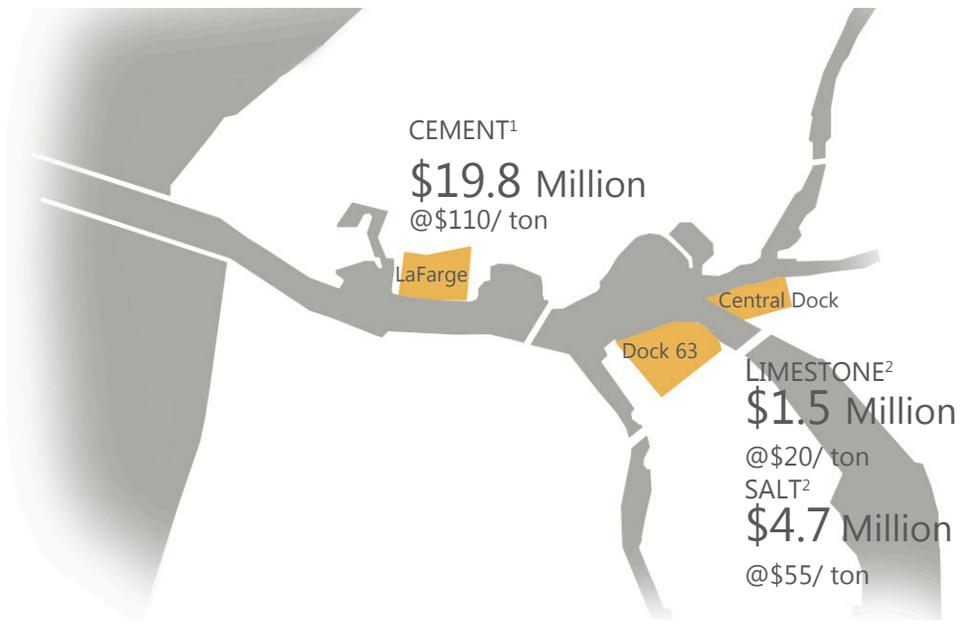
Annual budgets and legislative priorities have a significant impact on freight in the Twin Cities



**WEATHER**  
+ LAKE LEVELS

Winter trends impact freight for road maintenance, and changing lake levels impact dredging

1. Table 5.1, River Action Plan, 2001  
 2. Based on records provided by Peter Berghoff, Dock 63  
 3. Resilient St. Joseph: St Joe Commercial Harbor Presentation  
 4. Based on records provided by Peter Berghoff, Dock 63



2015 Freight<sup>3</sup>  
Projections: **340,000 tons**  
340 Jobs



2004 - 2009



2010 - 2014

Changing variables have led to a decline in the number of annual ships.<sup>4</sup>

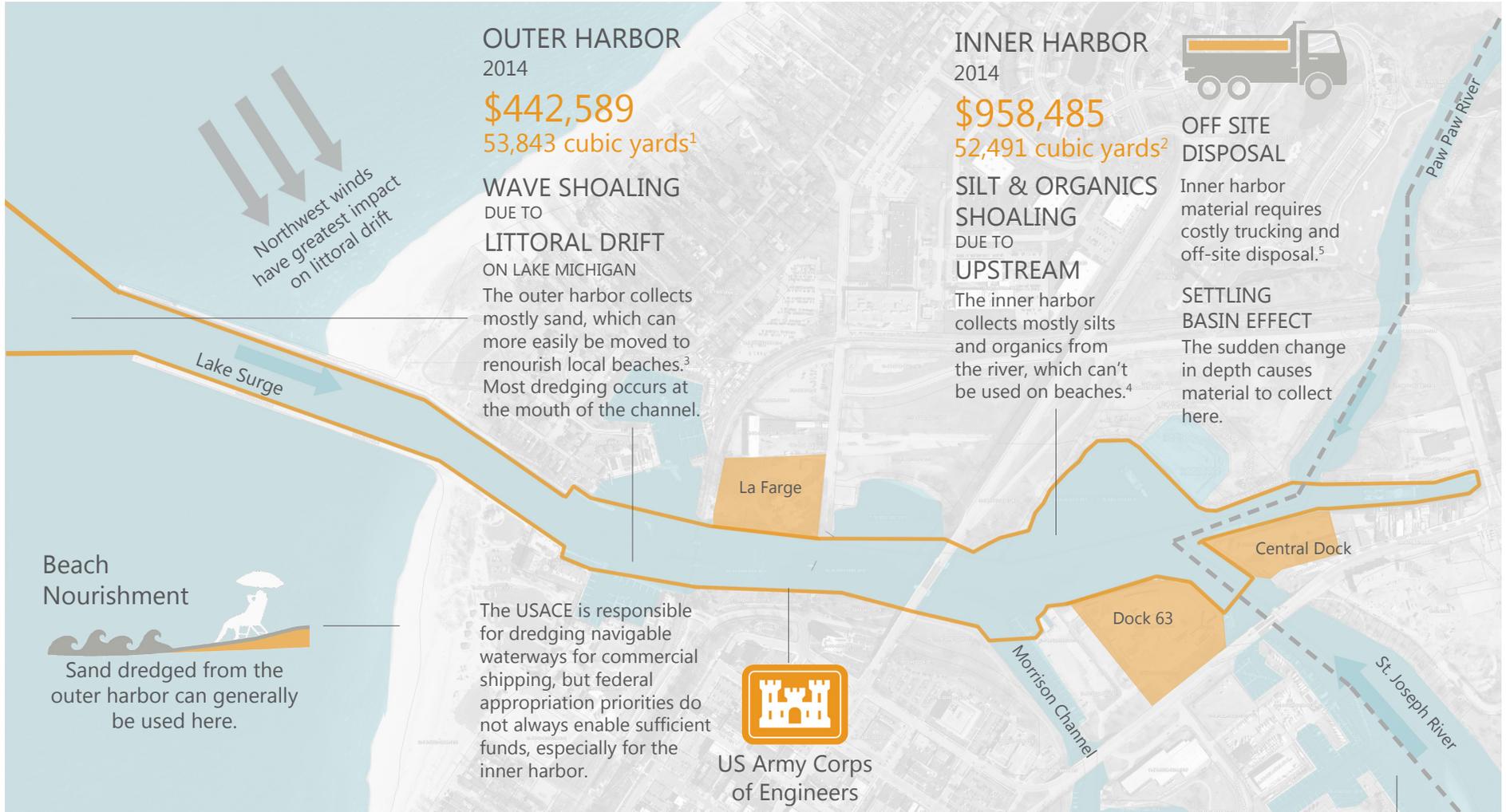
# 84%

SUPPORT Commercial Shipping

The 2015 Resilient St. Joseph master planning process revealed overwhelming support for maintaining commercial shipping in the Twin Cities harbor.<sup>6</sup>

1. 2015 Projection based on records provided by Lafarge via phone  
 2. 2015 projection based on records provided by Peter Berghoff, Dock 63  
 3. Based on records provided by Peter Berghoff, Dock 63  
 4. Resilient St. Joseph: Port Presentation, January 22, 2015  
 5. Based on 2015 tonnage and trucking cost projections in the River Action Plan  
 6. [www.resilientmichigan.org/downloads/compiled\\_results.pdf](http://www.resilientmichigan.org/downloads/compiled_results.pdf)

# Dredging & Navigation



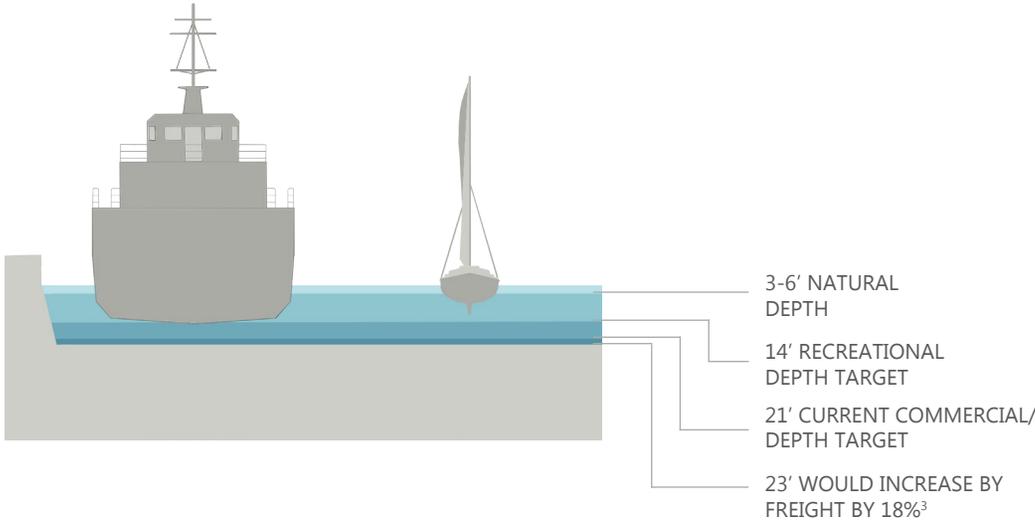
To understand local dredging issues, it helps to understand the differences between the inner and the outer harbor. The rivers bring mostly silts and organics, most of which settle into the inner harbor, partly due to the sudden change of depth. The outer harbor is primarily shoaled up with sand due to wave action on Lake Michigan. Therefore, in most years, the inner and outer harbors collect equal amounts of different material, which impact the cost of dredging unevenly.

1. Presentation by Thomas O'Bryan, USACE, Jan 22, 2015  
 2. Presentation by Thomas O'Bryan, USACE, Jan 22, 2015  
 3. Provided by Thomas O'Bryan, USACE, Nov 19, 2015  
 4. Provided by Thomas O'Bryan, USACE, Nov 19, 2015

5. Provided by Dan Fette, Berrien County, Oct 16, 2015  
 6. Proposed Dredging Project Fact Sheet, Mar 14, 2014  
 County of Berrien Community Development Department

# DEPTH MATTERS

EVERY FOOT OF  
ADDITIONAL DEPTH CAN YEILD  
**1000 TONS**  
OF EXTRA FREIGHT PER SHIP<sup>1</sup>



## PART OF GREAT LAKES PORT SYSTEM

### The Harbor Maintenance Trust Fund

was established in 1986 to maintain ports. Officially, funds are more readily available for harbors importing more than 1 million tons of material, but the Army Corps of Engineers has consistently argued that ports should be understood as part of an interdependent system where both small and large ports are necessary.<sup>4</sup>

Similarly, the local **COAST GUARD** station helps to complete a emergency service system and is not likely to be moved from the harbor.

# BRIDGE CHALLENGES

The CSX railroad swing bridge provides a major challenge to recreational boaters, as it does not operate according to a consistent schedule.<sup>2</sup> Its narrow 94 ft opening, together with the Blossomland (M-63) bascule bridge, force some commercial ships to turn in the turning basin for up to 1.5 hours, increasing shipping time and insurance rates.



Most ships that frequent the harbor are almost as long as two football fields.



**10-15 YEARS**  
BEFORE DREDGING AGAIN

If federally-funded dredging for commercial depths ceased today, it is estimated that, given normal conditions, it would take 10-15 years<sup>5</sup> before annual dredging would need to be resumed in order to maintain minimal depths for recreational boating.

In such a scenario, dredging costs are likely to be lower than today, as only marked channels would be dredged rather than the entire area of the harbor and its large turning basin. Precise costs are not known.

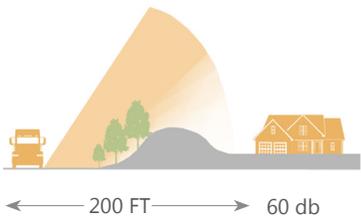
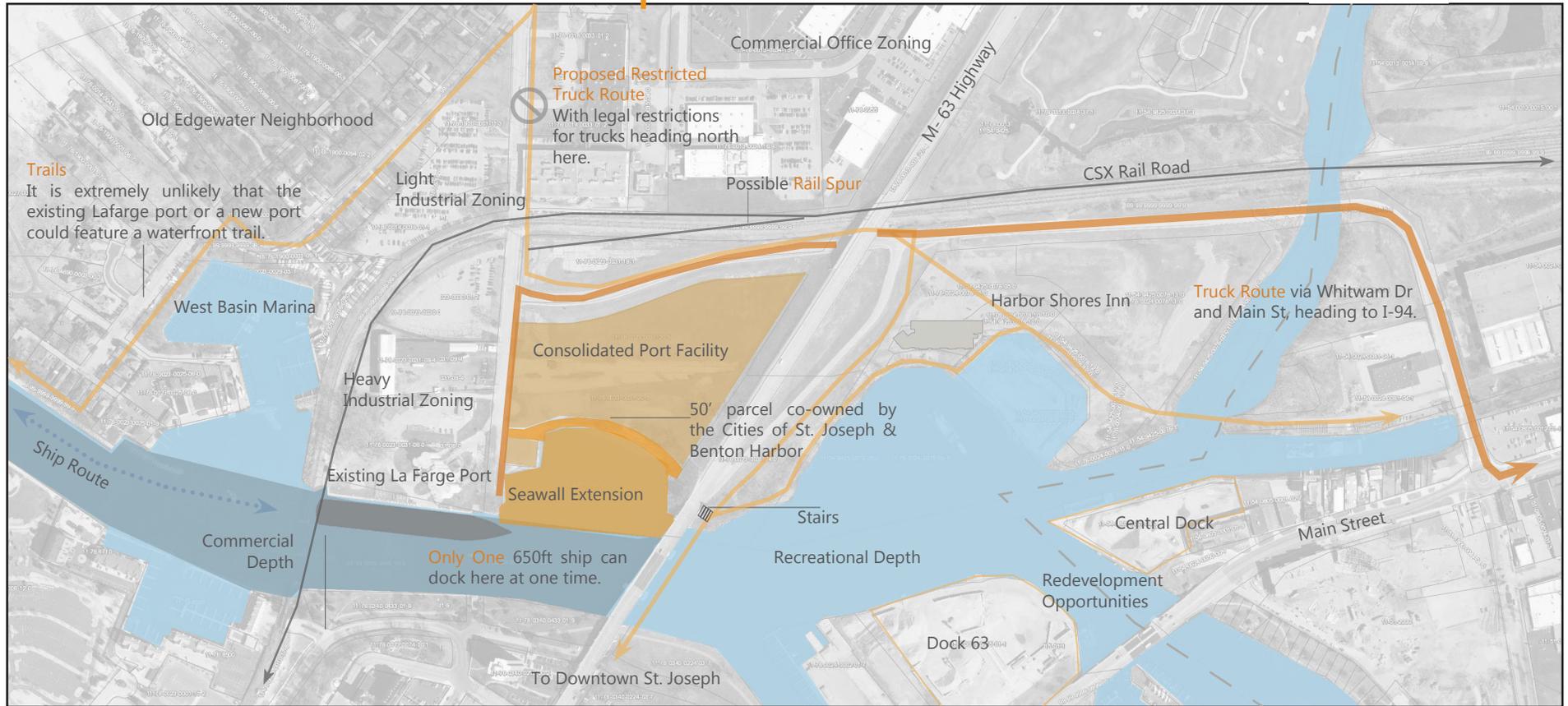
1. Provided by Peter Berghoff, Dock 63, Nov 4, 2015  
2. Provided by Boating Focus Group, Nov 18, 2015  
3. River Action Plan, 2001  
4. Provided by Thomas O'Bryan, USACE, Nov 19, 2015

5. Provided by Thomas O'Bryan, USACE, Nov 19, 2015

# Consolidated Port Concept

24

Port Cities



**NOISE** generated by trucks and equipment can be reduced to 60db (conversational level) within 200 ft by providing planted and bermed buffers at the site perimeter.<sup>4</sup> Modern sensor technology can be used to eliminate virtually all back-up beeping.<sup>5</sup>

## Political Challenge

### A Successful Port next to a Residential Neighborhood

From a port operations standpoint, and in light of immediately adjacent land uses and infrastructure, this is a very logical location to consolidate commercial shipping. However, the Old Edgewater Neighborhood is only 600 ft away, and legitimate concerns exist regarding the protection of quality of life. Also, the sale of a strategic 50 ft parcel would require the **unanimous vote of the St. Joseph City Commission**<sup>1</sup> and a past survey reveals a lack of consensus amongst residents<sup>2</sup>

**36%** NO      **35%** YES      **27%** NO ANSWER

### 5AM - 5PM Typical Hours of Operation

95% of operations occur between 6am and 5pm, although severe winters and certain road construction projects can demand exceptions to this schedule, even requiring night-time operations. This means that the use of lights would be a rare exception.<sup>3</sup>

 **SEASONAL EXCEPTION**

1. Provided by John Hodgson, Manager, City of St. Joseph, Sep 24  
2. Resilient St. Joseph Survey, Jan 22, 2015  
3. Provided by Peter Berghoff, Dock 63, Nov 4, 2015  
4. Traffic Noise Basics, Caltrans District 11

5. Provided by Peter Berghoff, Dock 63, Nov 4, 2015  
6. Provided by Peter Berghoff, Dock 63, Nov 4, 2015  
7. "Stalking the TIGER", Herald Palladium, Mar 8, 2015  
8. Peter Berghoff, Dock 63, Nov 4, 2015 and confirmed by on-site measurement

**Sustainable Port Due to Predictable Depth**

Depths are naturally more predictable in the outer harbor and ships here must only navigate around one bridge. This makes shipping here more attractive and helps to sustain healthy port business.<sup>5</sup>

**Quality of Life in Old Edgewater Neighborhood**

600 ft beyond the concept port site lies a historic lakefront neighborhood, where some residents are very concerned about noise, lights, safety, and the visual impact a new port would have. Likewise, there is some concern that the residential tax base could be negatively impacted. Also see p. 36.

**Conveying System**

The deep nature of the existing site would require the installation of a mechanical conveying system to distribute material from ships to various piles.<sup>6</sup>



Concept view of a outer harbor from M-63 Blossomland Bridge  
Also refer to pages 4 and 67

**Art on Silos**

In keeping with the art spirit of St. Joseph and Benton Harbor, the existing silos could be painted with murals, as can be found in some vibrant port cities.

**Dock Site Development**

2013 estimates in a Berrien County application for a TIGER grant included a \$12.5 million total site investment, resulting in a \$185 million return over 20 years. The grant was recommended for funding but ultimately not awarded because local cost-sharing was insufficient and city approval was absent.<sup>7</sup>

**Piles as Art**

Tarps are necessary to protect water quality from salt runoff. Current tarps are black, but additional investment could yield creative tarps that annually transform piles into art.

# Boating Harbor Concept

Possible Advantages of Port Consolidation

26

Port Cities

## \$20 Million

per year

Recreational boating on the St. Joseph River brings about \$20 million into the local economy, but this relies on dredged waterways.<sup>1</sup>

Boating impact on Twin Cities

## 1600

Boat Slips

Most are not walkable.

Few boat slips exist in Benton Harbor, and most of the many boat slips in St. Joseph are not within easy walking distance to retail or restaurants - a missed economic opportunity.

35% Out-of-State Seasonal

## \$3,600 Per Year Average<sup>3</sup>

Boat Expenses:

## 53%

Equipment and Service

Local marinas provide much of this service and sell equipment.

## 22%

Fuel

On average, a Great Lakes boater spends 23 days annually boating.

## 17%

Restaurants

The most successful port towns make it easy to walk from boats to restaurants.

## 14%

Groceries

Local retailers can benefit if conveniently located near boats slips.

## 81%

Tourism Up

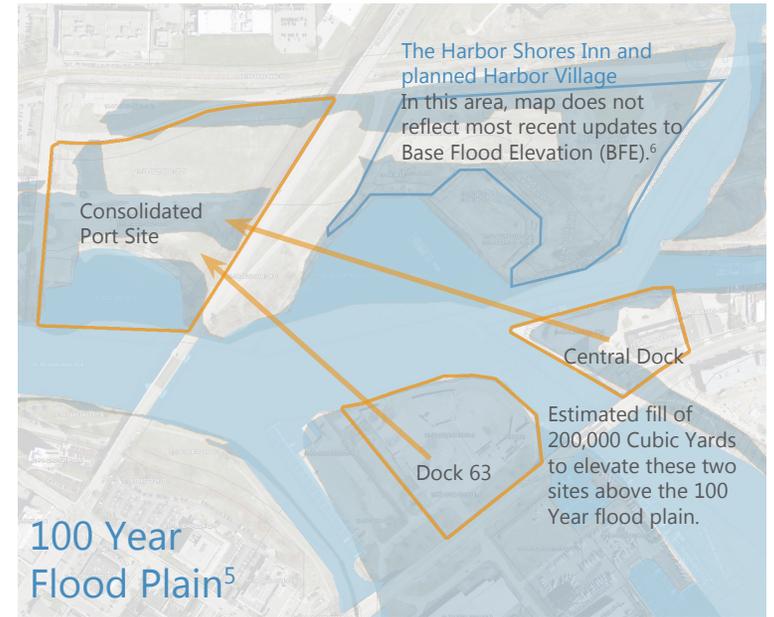
Most county residents surveyed in 2009 perceive a shift from industry to tourism as an economic base in Berrien County.<sup>4</sup>

## Only 10

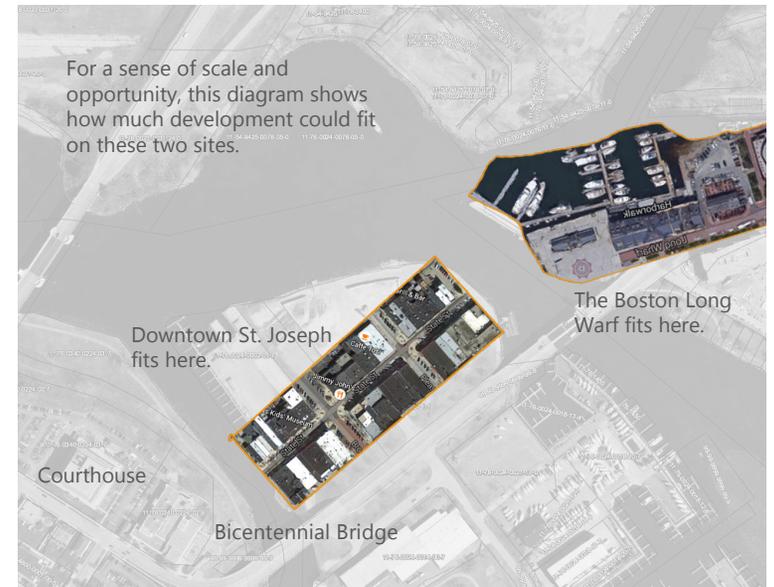
Transient Slips<sup>2</sup>

Private marinas prioritize seasonal slips, so visitors arriving by boat have few dedicated transient slip options in the Twin Cities. Compare this to: 40 in New Buffalo.

## Redevelopment Through Consolidation



## Scale Comparison



1. "\$3 million plan to dredge St. Joseph River moves forward", South Bend Tribune, Dec 13, 2007

2. St. Joseph City Website

3. Great Lakes Recreational Boating Economic Benefits Study, p.5

4. Berrien County Master Plan, 2009, p. 22

5. Based on map by Southwest Michigan Planning Commission: MCGI Framework v14 Zone, Structures, BFE, LOMA's & Water Lines: ArcGIS Map Service Server: hazards.fema.gov/gis/nfhl/services

6. Provided by John Hodgson, Manager, City of St. Joseph.

Most of this area has been removed from BFE by fill. Letter of Map Revision-F 13-05-3375A, 4/12/2013

### Recreational Dredging

If dredging for commercial depths ceased today, it is estimated that, under normal conditions, dredging would need to be resumed in 10-15 years to provide minimal recreational depths. However, the dredged area would likely be reduced to channels, thereby reducing costs. See page 23.

### Benefits for Both Cities

Redevelopment of existing commercial ports could substantially benefit St. Joseph and Benton Harbor, as it could bring vibrant activity in both cities within closer proximity to each other. Central Dock is only 230 ft from Marina Island.

### Public Access and Views

The most successful harbor cities preserve continuous public access and views to the waterfront. Slow vehicular access can help to sustain businesses during the winter.



Concept View of Marina Island Waterfront looking East  
Also refer to Pages 6 and 68

### Destination-Based Boat Slips

Boat slips within convenient walking distance to amenities and quality public spaces help to enhance economic productivity and quality of life.

### Waterfront Economy

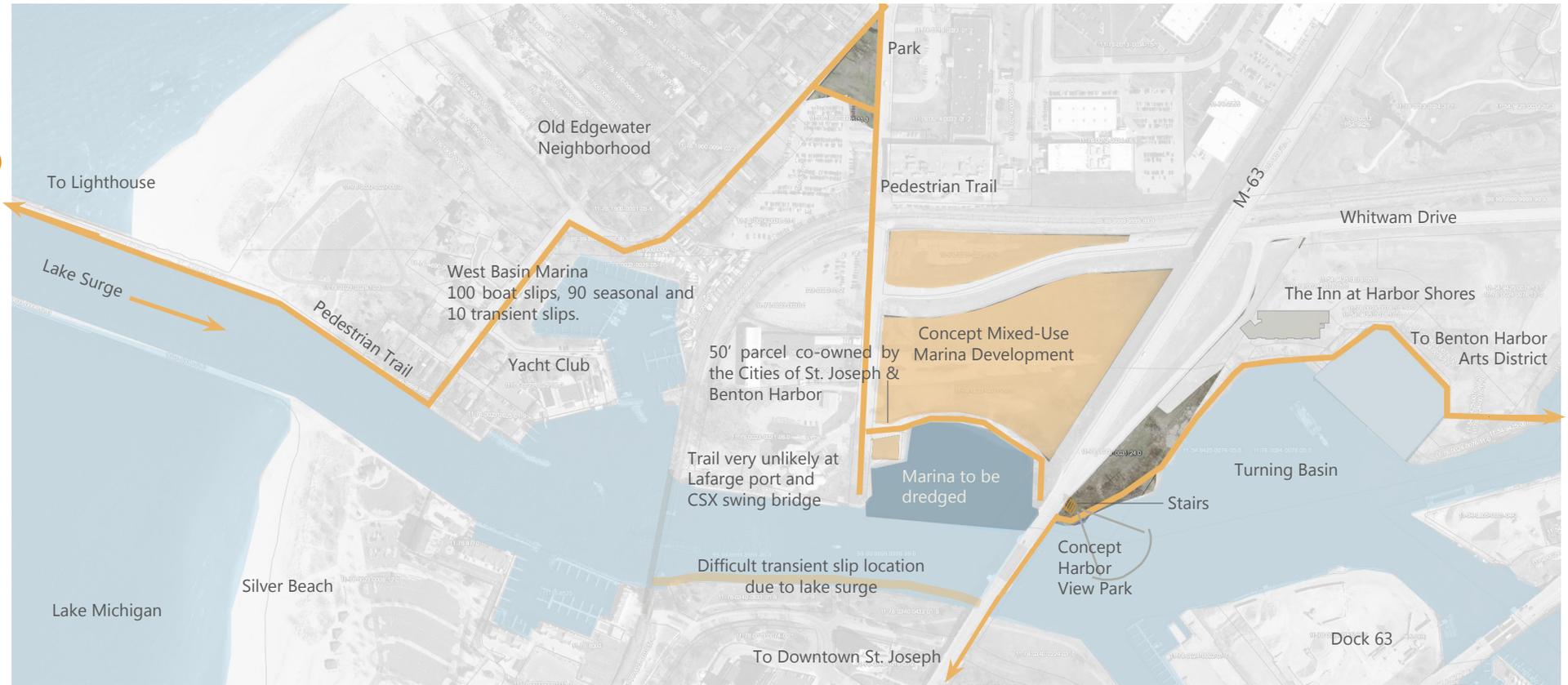
The existing market is estimated to be able to support an additional 7-11 restaurants (See pages 34-35). Also, on average, boaters spend 31% of annual trip expenses on restaurant visits and groceries.

Art: 'LeMieux'

# Marina Concept

28

Port Cities



**5-8 YEARS** Average

## West Basin Marina Waiting List

Seasonal slips at the West Basin Marina are in high demand, partly because its location enjoys access with no bridges and the shortest possible time in a no-wake zone. While this demand at this single marina may not indicate an overall shortage of slips in the Twin Cities, it does suggest that an additional Marina west of M-63 may be sustainable.<sup>1</sup>

## Water Recreation District



### Zoning and Master Plan

The existing zoning on the parcel is intended for any use that is specifically compatible with waterfront development, including limited industrial and mixed-use concepts. Private development requires approval through a PUD process. The existing Master Plan and the 2015 draft master plan echo this intention in their Future Land Use descriptions.<sup>5</sup>



### M-63 Blossomland Bridge

If new non-motorized ramps and sidewalk improvements were approved by MDOT to connect the site with M-63, it would be about an 8-minute walk to downtown St. Joseph. However, comfortable and safe pedestrian access is further complicated because the historic bascule bridge is listed on the National Historic Register<sup>4</sup> and modifications may be impossible.<sup>3</sup>

1. Provided by John Hodgson, Manager, City of St. Joseph, Dec 8  
 2. City of St. Joseph Zoning Ordinance  
 3. Provided by John Hodgson, Manager, City of St. Joseph, Sep 24

4. U.S. Department of the Interior, Weekly List of Actions taken on Properties: Dec 13-17, 1999  
 5. City of St. Joseph 2015 Master Plan, Draft, Future Land Use p. 10; Excerpt regarding industrial uses:  
 "Any new industrial uses must be functionally dependent on or associated with the waterfront. This district should not be used for industrial uses that do not require a relationship with the waterfront."

### Channel

During certain festivals, boats are tied to the seawall at the Upton Arboretum. However, this type of slip is not a safe solution for seasonal use due to the frequently severe lake surge.

### Old Edgewater Neighborhood

The historic lakefront neighborhood lies about 600 ft beyond the site. Some concerned residents have expressed opposition to increased commercial port activity at this site, but generally support the idea of marina- and leisure-based mixed-use development.



Downtown St. Joseph

Upton Arboretum

La Farge  
Commercial Port

Concept view of mixed-use Marina as seen from M-63 Blossomland Bridge  
Also refer to pages 5 and 67

### Dredging and Navigation

The bay shown here is relatively well protected from the lake surge and could be used as a marina. It is currently too shallow for most boats and would need to be dredged regularly.

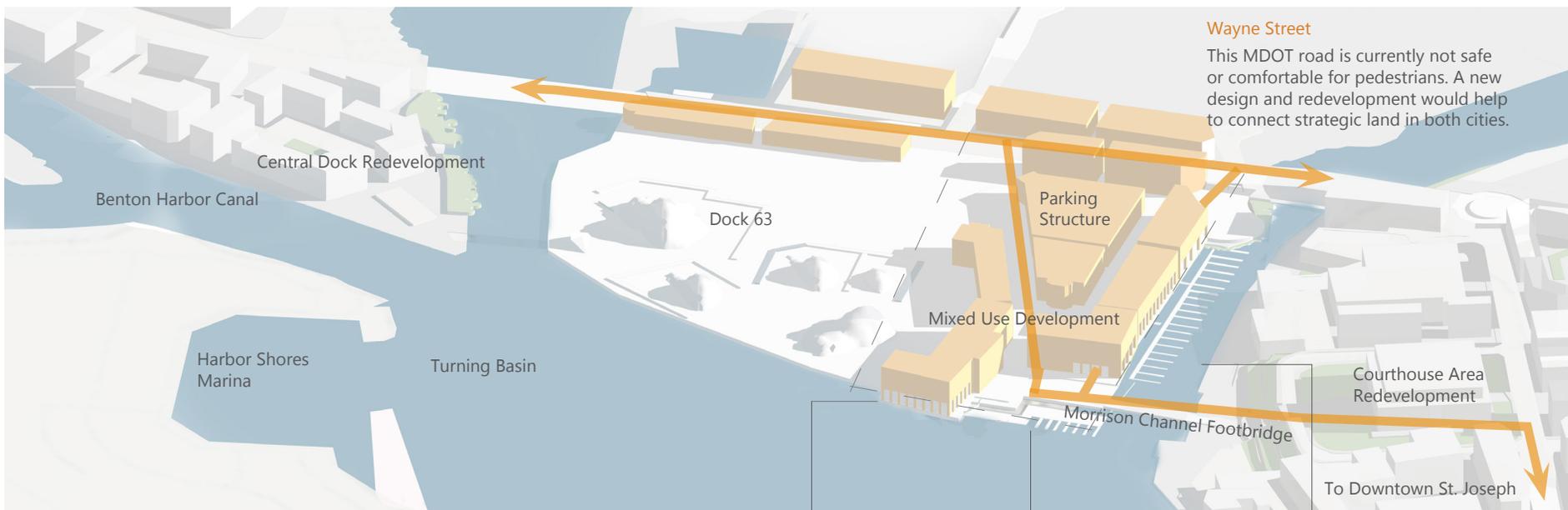
### Mixed Use Waterfront Development

Former site of a water tower and Whirlpool's enormous St. Joseph Division plant. The concept shown here is for a marina, residential development, and a waterfront inn, restaurants, and limited retail.

# Integrated Port Concept

30

Port Cities



## Working Harbor

Portsmouth, NH is a successful example of an authentic port city of similar size, where commercial docks and high-value mixed-use coexist comfortably.

## USACE Dredging

The scenario presented here assumes that the inner harbor would retain commercial shipping activity and be dredged regularly by the U.S. Army Corps of Engineers.

## 2,500 Yards of Estimated Fill

The existing private parcel next to Dock 63 could be redeveloped if it was elevated above the flood plain. See page 26 for additional information on flood plains.

## Pedestrian Connectivity

Downtown St. Joseph and the site itself would benefit from improvements to Wayne Street and from a new pedestrian bridge over Morrison Channel. It would be operable or tall enough for most motor yachts.

## Morrison Channel

Sailboats generally do not use the channel due to its strong current. This is why the existing Wayne Street bridge is not a bascule bridge, and why a pedestrian bridge could be considered here.<sup>2</sup>



1. Provided by Rick Chellman, P.E., Portsmouth, NH  
 2. Provided by Boating Focus Group, November 18, 2015  
 3. Great Lakes Navigation Update, USACE, February 2015

### Dock 63

This scenario maintains the commercial port in the existing location.

### Noise

Sensor technology can eliminate virtually all back-up beeping on equipment. The remaining noise would be limited and typical of authentic port towns, which would not bother certain target markets, if provided with good sound insulation.

### Mixed Use Development

Development here would target loft-style residential, dining, hotel, office, and retail that can complement a working harbor waterfront development.



55' tall

Possible Transient Slips

Concept view of Marina Island Redevelopment and Dock 63 Commercial Port  
Also refer to pages 7 and 69

### Future of USACE dredging somewhat uncertain

In February 2015, the U.S. Army Corps of Engineers graded the harbor at a "C" and said it was at medium risk for failure/closure<sup>3</sup> due primarily to uncertain funding and the challenges of the inner harbor. See p. 20-23.

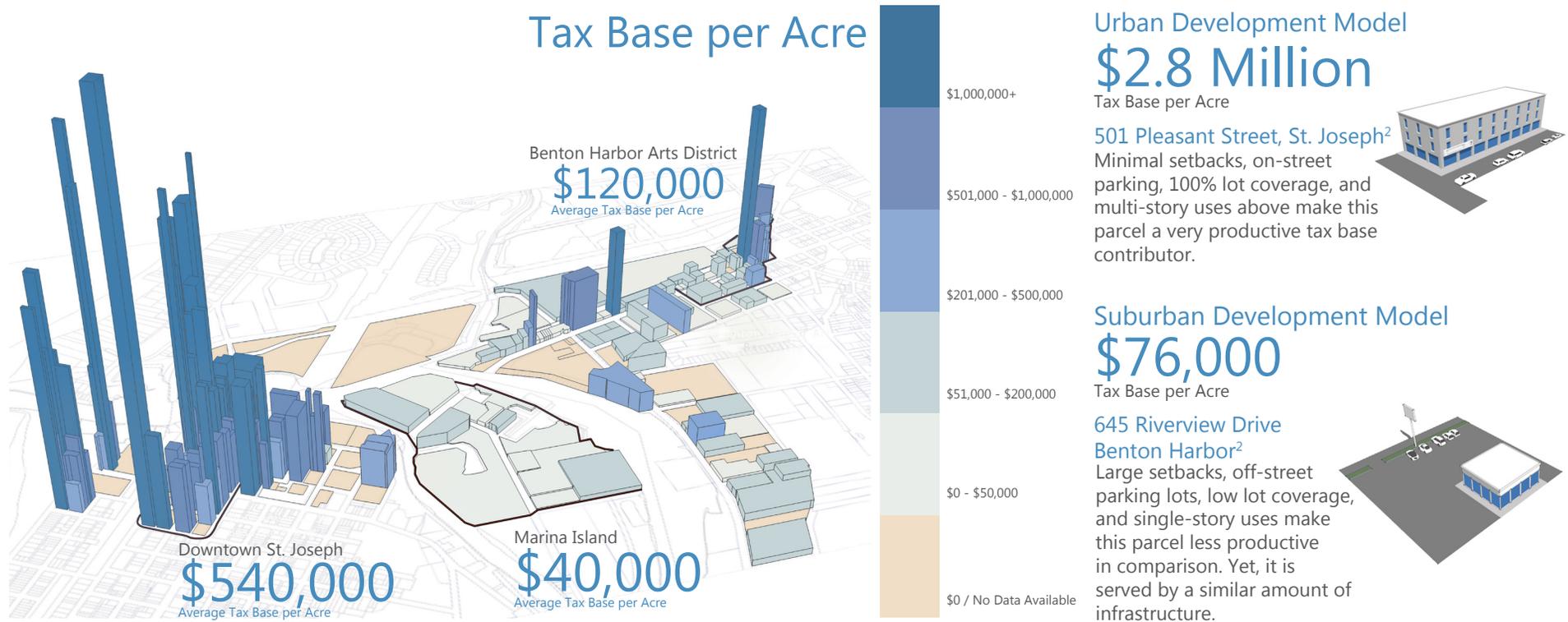
### Public Access Waterfront

The most successful harbor cities guarantee continuous public access to waterfronts

### Morrison Channel Footbridge

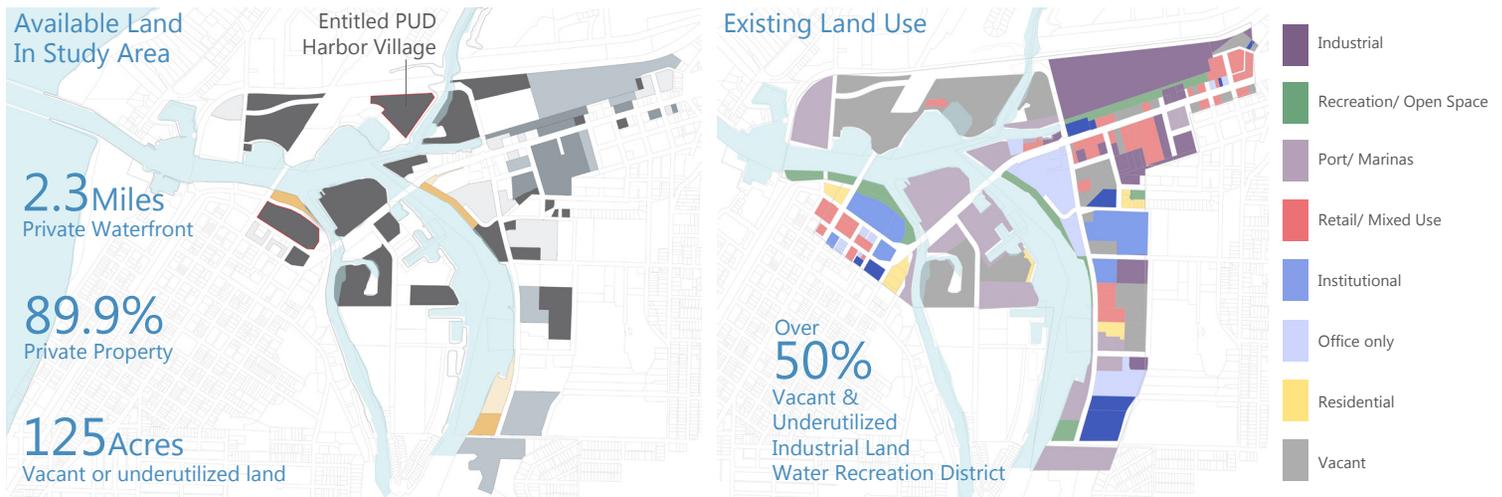
The bridge could be designed to be operable or tall enough to enable passage for most motor yachts.

# URBAN PRODUCTIVITY



## Productivity per Acre

The productivity of land can be measured by looking at public tax records and calculating the Tax Base per acre. Cities have a finite amount of land, so promoting productive development types helps to grow tax base. The diagram above clearly illustrates that urban, walkable, compact, mixed-use places are consistently more productive than low-density, suburban, automobile-oriented development models.<sup>1</sup>



1. Tax base per acre is calculated using data from the Berrien County 2015 public tax records, available on the county GIS website

2. Ibid. - Note: This comparison is not an evaluation of private businesses models, but simply a comparison of two urban development models.

### Parking

As much as possible, streets should feature convenient on-street parking. This helps private land to be more productive by reducing the need for off-street parking, which should be located mid-block, behind buildings. On-street parking should be metered to promote higher customer turn-over and avoid inefficient use.

### Liner Building

25-30 ft buildings that conceal parking in the rear and preserve a quality pedestrian experience on the street.

### Whirlpool Corporation

About 1,000 employees work inside this North American Headquarters building. Over 4,000 employees are located in the Twin Cities area.



Concept view of Main Street and Riverview Drive mixed-use redevelopment  
Also refer to pages 10 and 72

### Residential Units

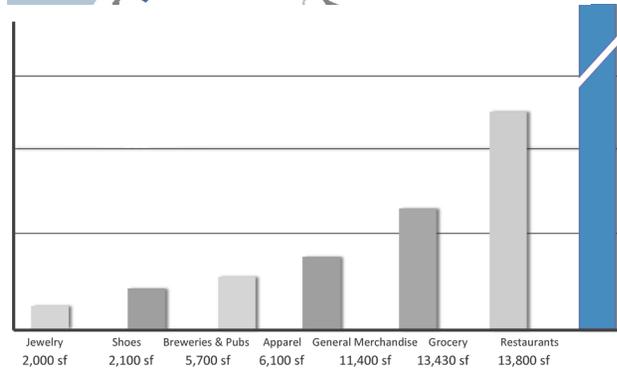
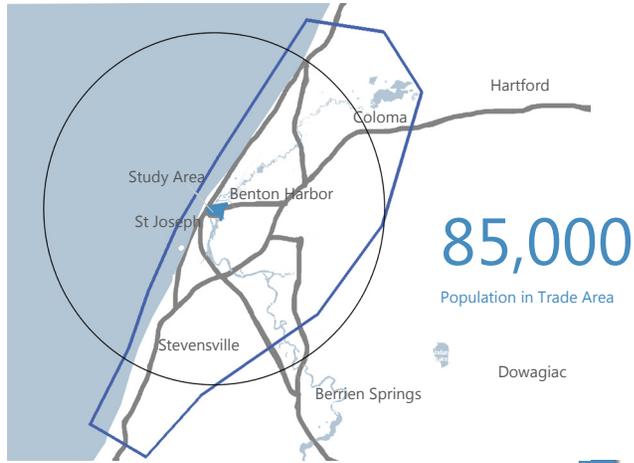
Residential development creates a customer base for neighborhood-serving retail, especially grocery stores and other retail anchors designed to compliment the area's urban character. In Benton Harbor, dwellings are also within walking distance to numerous jobs, including Whirlpool Corporation's design and administrative offices.

### 100 % Corner

This strategic intersection at Main Street and Riverview Drive in Benton Harbor experiences high daily traffic averages and was identified by this study's retail consultant as the best corner to concentrate new retailers, especially if traffic can be maintained at slow operating speeds. See pages 34-35.

# Retail Analysis

## Primary Trade Area



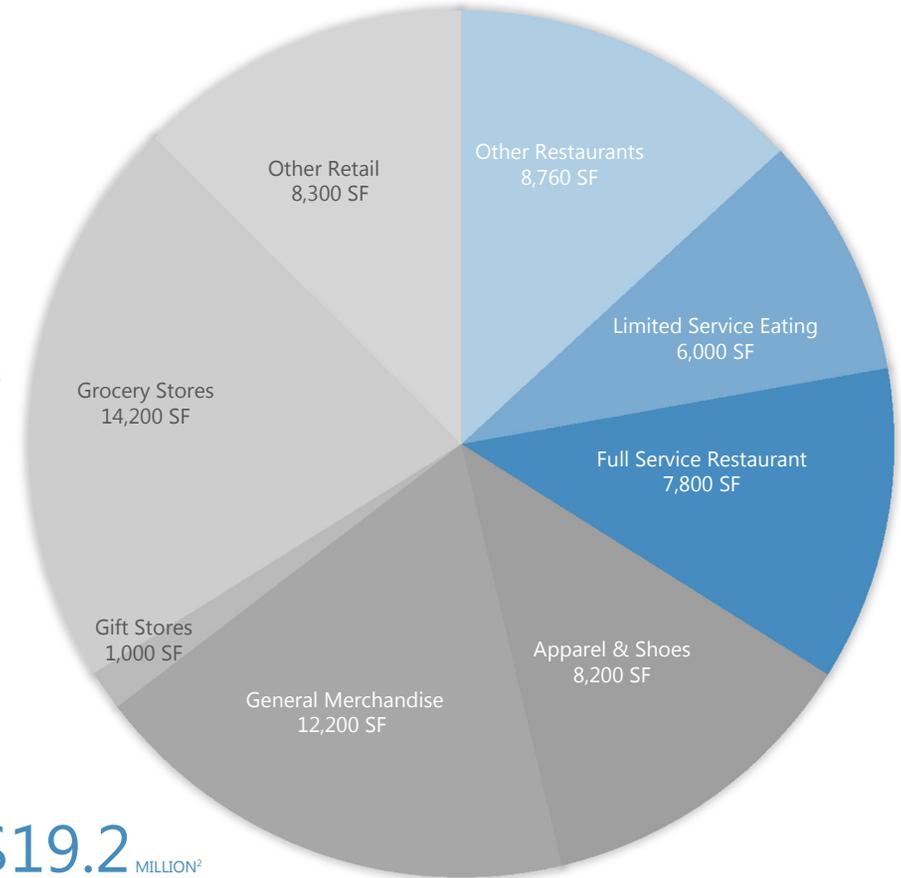
**\$20.4 Million<sup>2</sup>**

Additional Supportable retail by 2020

**Robert Gibbs, AICP, ASLA, CNU-A**, Gibbs Planning Group, Birmingham, MI  
 This retail analysis was prepared by Robert Gibbs, a nationally renowned retail planner. Profiled in The New York Times, The Wall Street Journal, and Urban Land, Gibbs is a recognized leader in the New Urbanism, having pioneered the implementation of environmentally sustainable principles of Traditional Town Planning and Smart Growth. For the past 25 years, Gibbs has been active in developing innovative yet practical methods for applying modern trends in commercial development to more than 400 town centers and historic cities here and abroad.<sup>1</sup>

## Trade Area Tapestry Lifestyles

Rank	Tapestry Segment	2015 Households		2015 U.S. Households		Index
		Percent	Cumulative Percent	Percent	Cumulative Percent	
1	Comfortable Empty Nesters (5A)	12.5%	12.5%	2.5%	2.5%	501
2	Modest Income Homes (12D)	9.2%	21.7%	1.4%	3.9%	679
3	Midlife Constants (5E)	9.0%	30.7%	2.5%	6.4%	353
4	Salt of the Earth (6B)	8.1%	38.8%	2.9%	9.3%	275
5	City Commons (11E)	7.1%	45.9%	0.9%	10.2%	789
	<b>Subtotal</b>	<b>45.9%</b>		<b>10.2%</b>		



**\$19.2 MILLION<sup>2</sup>**  
 Additional Supportable Retail in 2015

1. Gibbs Planning Group website  
 2. The complete "Twin Cities Harbor Retail Market Study" can be viewed on the Southwest Michigan Planning Commission website: <http://www.swmpc.org/bhsjharbor.asp>

## Trade Area Demographic Comparison<sup>2</sup>

Demographic Characteristic	Primary Trade Area	Niles-Benton Harbor MSA	State of Michigan
2015 Population	85,500	155,600	9,870,800
2015 Households	34,900	63,100	3,902,600
2020 Population	85,100	155,200	9,944,000
2020 Households	34,800	63,000	3,902,600
2015-2020 Annual Population Growth Rate	-0.09%	-0.05%	0.15%
2015-2020 Annual HH Growth Rate	-0.05%	-0.01%	0.21%
2015 Average Household Income	\$61,300	\$59,100	\$66,500
2015 Median Household Income	\$43,000	\$43,000	\$49,400
2020 Average Household Income	\$71,200	\$68,500	\$76,300
2020 Median Household Income	\$51,800	\$51,400	\$56,700
% Households w. incomes \$75,000 or higher	29.3%	27.3%	31.5%
% Bachelor's Degree	16.3%	15.1%	16.7%
% Graduate or Professional Degree	10.3%	10.6%	10.8%
Average Household Size	2.4	2.4	2.47
Median Age	42.8	43.1	39.9

## 2015 Supportable Retailers<sup>2</sup>

Retail Category	Estimated Supportable SF	2015 Sales/SF	2015 Estimated Retail Sales	2020 Sales/SF	2020 Estimated Retail Sales	No. of Stores
<b>Retailers</b>						
Apparel Stores	6,080	\$255	\$1,550,400	\$270	\$1,641,600	3 - 4
Beer, Wine & Liquor Stores	730	\$275	\$200,750	\$290	\$211,700	1
Book & Music Stores	680	\$215	\$146,200	\$230	\$156,400	1
Florists	620	\$195	\$120,900	\$205	\$127,100	1
Furniture Stores	970	\$225	\$218,250	\$240	\$232,800	1
General Merchandise Stores	11,360	\$295	\$3,351,200	\$315	\$3,578,400	3 - 4
Grocery Stores	13,430	\$305	\$4,096,150	\$325	\$4,364,750	1 - 2
Home Furnishings Stores	1,050	\$235	\$246,750	\$250	\$262,500	1
Jewelry Stores	2,000	\$315	\$630,000	\$335	\$670,000	1 - 2
Lawn & Garden Supply Stores	770	\$205	\$157,850	\$220	\$169,400	1
Miscellaneous Store Retailers	1,880	\$245	\$460,600	\$260	\$488,800	1 - 2
Office Supplies & Gift Stores	1,040	\$250	\$260,000	\$265	\$275,600	1
Shoe Stores	2,100	\$260	\$546,000	\$275	\$577,500	1 - 2
Sporting Goods & Hobby Stores	1,210	\$225	\$272,250	\$240	\$290,400	1
<b>Retailer Totals</b>	<b>43,920</b>	<b>\$250</b>	<b>\$12,257,300</b>	<b>\$266</b>	<b>\$13,046,950</b>	<b>18 - 24</b>

## 2015 Supportable Restaurants<sup>2</sup>

Restaurants						
<b>Restaurants</b>						
Bars, Breweries & Pubs	5,730	\$300	\$1,719,000	\$320	\$1,833,600	2 - 3
Full-Service Restaurants	7,830	\$320	\$2,505,600	\$340	\$2,662,200	2 - 3
Limited-Service Eating Places	6,010	\$310	\$1,863,100	\$330	\$1,983,300	2 - 3
Special Food Services	2,990	\$295	\$882,050	\$315	\$941,850	2 - 3
<b>Restaurant Totals</b>	<b>22,560</b>	<b>\$306</b>	<b>\$6,969,750</b>	<b>\$326</b>	<b>\$7,420,950</b>	<b>7 - 11</b>

Metered, on-street parking provides convenience and high customer turn-over.   
In vibrant, pedestrian-oriented town centers, each on-street parking space yields up to **\$250,000** in local annual retail sales.<sup>1</sup>



Quality public space, harmonious architecture, and great design attracts people from farther away and can increase retail sales. 

## Place-making can Drive Demand.

Conventional development only taps into existing markets but doesn't usually create new ones.



This retail market study finds that the majority of additional supportable retail will be 

## Local & Independent.<sup>2</sup>

Instead of national chains, this type of retail cultivates local entrepreneurship opportunities.



1. Provided by Gibbs Planning Group.  
2. The complete "Twin Cities Harbor Retail Market Study" can be viewed on the Southwest Michigan Planning Commission website: <http://www.swmpc.org/bhsjharbor.asp>

## Food Shed



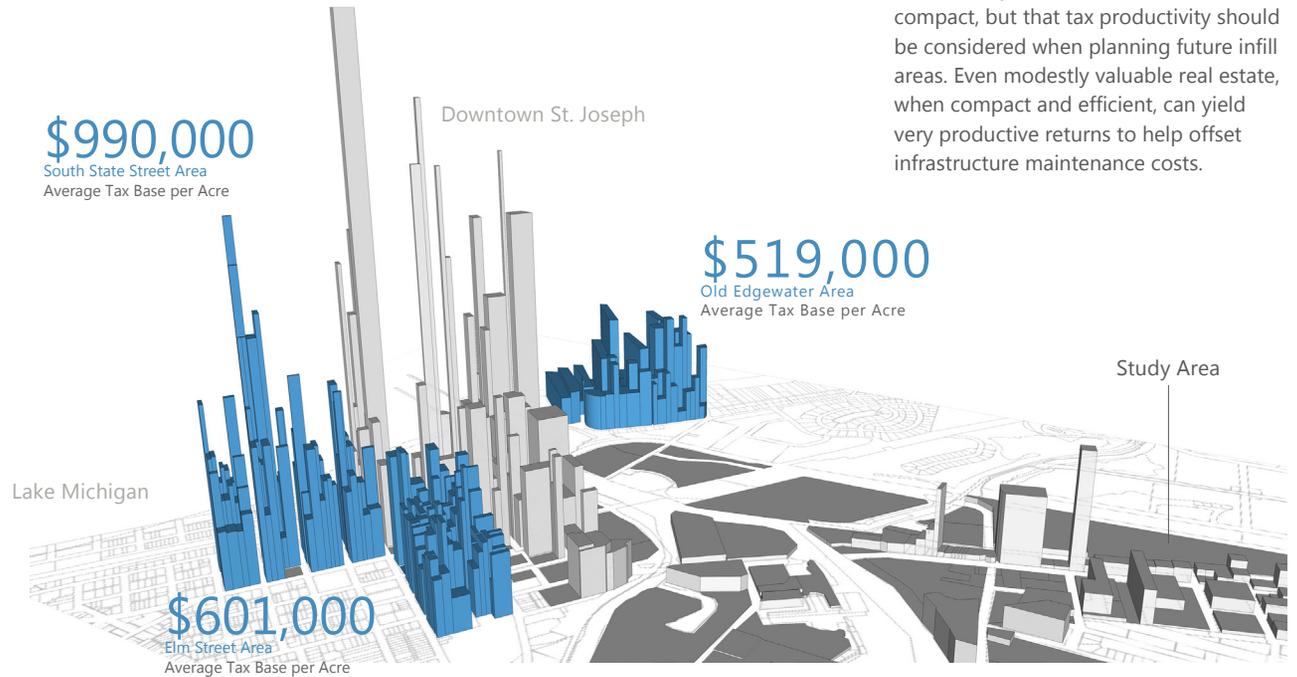
The Food Shed concept is an opportunity to showcase Berrien County agricultural goods, locally-designed kitchen appliances, and related products in a vibrant space designed for social interaction, education, and agri-tourism.



Intended to be an authentic celebration of the best the county has to offer, it could feature a cafe, boutique market for fine local foods, culinary education, and events for locals and visitors alike.<sup>1</sup>

## Residential Productivity

This diagram illustrates how selected neighborhoods in St. Joseph perform in terms of tax productivity, using the tax base on public record and calculated per acre. The most productive properties tend to be small, densely developed urban lots rather than estate lots with large setbacks. This is not to suggest that all lots everywhere should be small and compact, but that tax productivity should be considered when planning future infill areas. Even modestly valuable real estate, when compact and efficient, can yield very productive returns to help offset infrastructure maintenance costs.



### Downtown Flats

Mixed-use building types with residential lofts above commercial ground floors are most productive.



### Price Street Cottages

Small and compact residential lots on Elm Street and State Street are very productive.



### Edgewater Dunes

Half-acre lots as found at Edgewater Dunes can be productive, but not quite as productive as more densely developed lots.

1. Photos are of local food "Shed", Healdsburg, California  
 2. Tax base per acre is calculated using data from the Berrien County 2015 public tax records, available on the county GIS website

### Variety of Residential Types

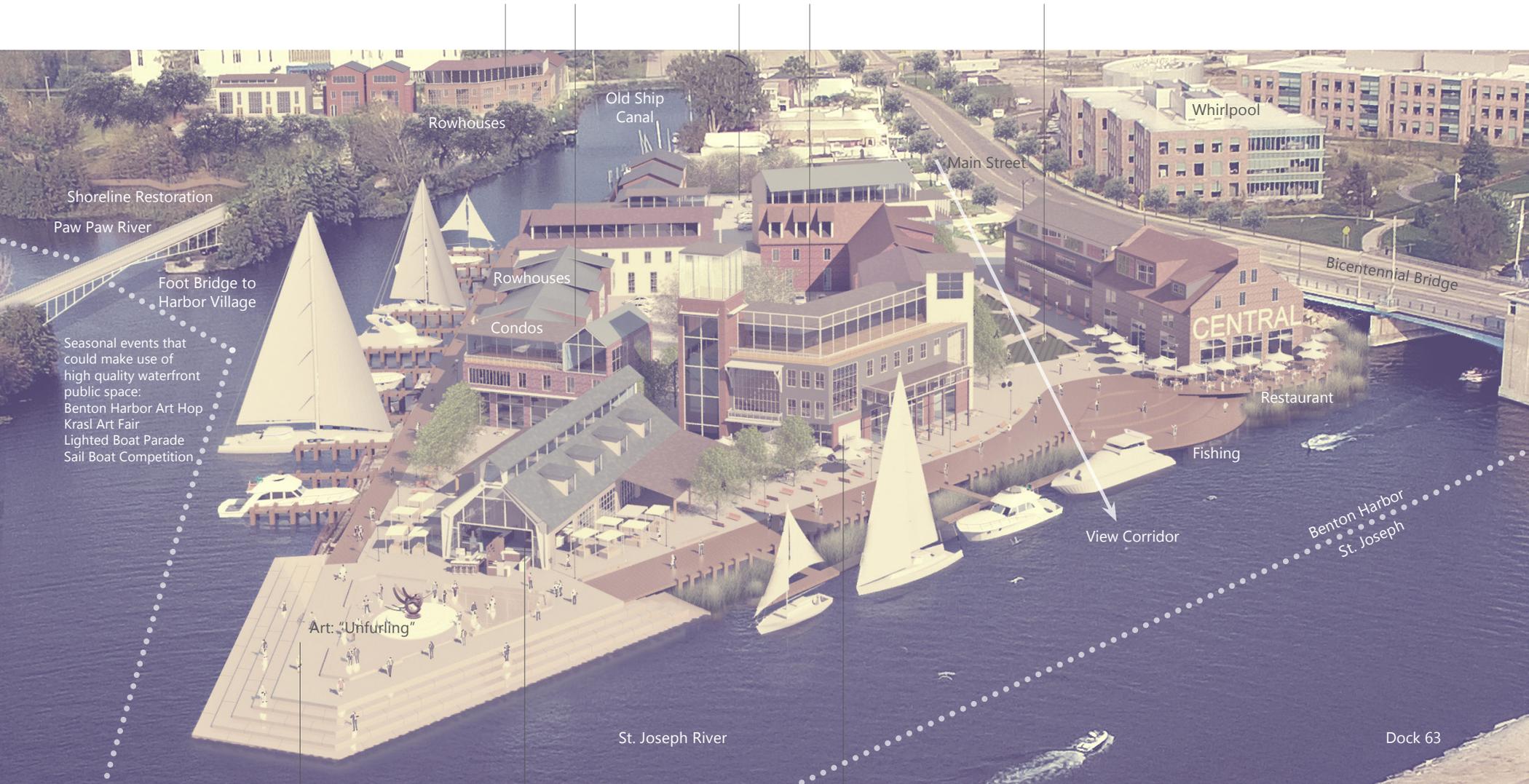
Diversity in residential types can be encouraged. Shown below are examples of single-family rowhouses and mixed-use buildings with upper-story loft spaces.

### Parking

Parking spaces should be provided on-street and in mid-block areas to support density.

### Pedestrian Passage

The passage provides Main Street a view corridor towards the river. It is pedestrian friendly and can also be used by service vehicles.



Shoreline Restoration  
Paw Paw River

Foot Bridge to  
Harbor Village

Seasonal events that  
could make use of  
high quality waterfront  
public space:  
Benton Harbor Art Hop  
Krasl Art Fair  
Lighted Boat Parade  
Sail Boat Competition

Rowhouses

Old Ship  
Canal

Main Street

Whirlpool

Rowhouses

Condos

Bicentennial Bridge

Restaurant

Fishing

View Corridor

Benton Harbor  
St. Joseph

Art: "Unfurling"

St. Joseph River

Dock 63

### Public Events Plaza

Located at the tip of the Central Dock redevelopment concept is a large plaza that looks out towards the harbor and Lake Michigan. The space would be ideal for holding existing and future community events.

### Food Shed

A large and flexible space that can be used for showcasing the best of Berrien County foods and related goods to draw locals and agri-tourists. See page 36.

### Restaurants

Mixed-use buildings with retail and restaurant opportunities on the ground floor.

Concept view of mixed-use redevelopment of Central Dock  
Also refer to pages 8 and 70

# Residential Market Analysis

## Harbor Study Area

This study finds that the Benton Harbor-St. Joseph Study Area (BHSA) is a **desirable urban infill location**.

Gibbs Planning Group (GPG) estimates that over the next five years, the BHSA can support approximately:

**280** total new single-family homes and rental multiple-family dwelling units.

"These detached and attached dwellings should be designed to appeal to young professionals without children and active empty nesters and/or seniors. The region's market demand for larger detached homes geared towards families will be absorbed by the existing inventory of developed lots in subdivisions that collapsed during Michigan's Great Recession of 2006-2012."<sup>1</sup>

"National research and GPG's experience has proven that walkable, well-designed urban places are sought by about 50 percent of the millennials and empty nesters in for-sale and rental residential markets. Locations with interesting and historic urban settings combined with exciting restaurants, shops, parks and employment centers, can command significantly higher property values than conventional suburban development. Should the above study site be built as a walkable and attractive urban center, it could potentially become a sought after destination for a wide range of home buyers and renters including: singles, single-parents, young couples, young families, empty nesters, second home owners and retirees."<sup>2</sup>



### Single-Family Homes

**80** units over 5 years

50 homes at 1,000 to 2,000 sf  
30 home at 1,800 to 2,400 sf

50 Small Lot Village Homes over next 5 years

- For professionals, young families without school-aged children, singles and active empty nesters seeking to downsize.
- Clustered around courtyards or built on 3,000 to 4,500 sf lots, with alley-facing garages and front porches.
- Starting at \$150/sf or \$150,000 up to \$300,000

30 Young Family Homes over next 5 years

- For families with young children with sites, in the St. Joseph school system.
- Planned as part of walkable neighborhood with sidewalks, parks and garages facing rear alleys or setback from the front of the house.
- Starting at \$150/sf or \$270,000



750 to 1,100 sf rental dwellings  
One to three bedrooms

### Lofts & Apartments

**200** units over 5 years

50 Loft Apartments (rental) over next 5 years

- For young professionals without children
- Luxury finishes and designs, unqiues spaces
- 750 to 1,100 sf
- Starting at \$1.50/sf/month

150 Garden-style Apartments over next 5 years

- One and two bedroom apartments
- Conventional finishes and designs
- 750 to 1,100 sf
- Starting at \$1.00 to \$1.15/sf/month

The information on this page is a summary.<sup>1</sup> The complete residential market study can be found at <http://www.swmpc.org/bhsjharbor.asp>

Residential Unit Market Demand

Summary table of estimated Benton Harbor-St. Joseph study area residential unit market demand.<sup>1</sup>

Unit Type	2016	2017	2018	2019	2020	Total
Village Single-family Homes	8 Homes	8 Homes	10 Homes	12 Homes	12 Homes	50 Homes
Young Family Single-family Homes	5 Homes	6 Homes	6 Homes	6 Homes	7 homes	30 Homes
Loft Apartments	10 Lofts	50 Lofts				
Garden Apartments	30 Apts.	150 Apts.				
<b>Totals</b>	<b>53 Units</b>	<b>54 Units</b>	<b>56 Units</b>	<b>58 Units</b>	<b>59 Units</b>	<b>280 Units</b>

1. The complete "Residential Market Analysis: Twin Cities Harbor: Benton Harbor and St. Joseph, Michigan", December 2015, can be viewed on the Southwest Michigan Planning Commission website: <http://www.swmpc.org/bhsjharbor.asp>

2. Gibbs Plannig Group

### Residential Development

Single-family rowhouses, loft condos or apartments with harbor views and within easy walking distance to everything.

### Marina with Transient Slips

The idea of a county marina at the base of the courthouse has been considered since at least the 1970s, when an officer employed at the jail drew up concept plans for transient slips within easy walking distance to downtown St. Joseph.



Concept View of Inner Harbor from Redeveloped Courthouse Bluff  
Also refer to pages 15 and 77

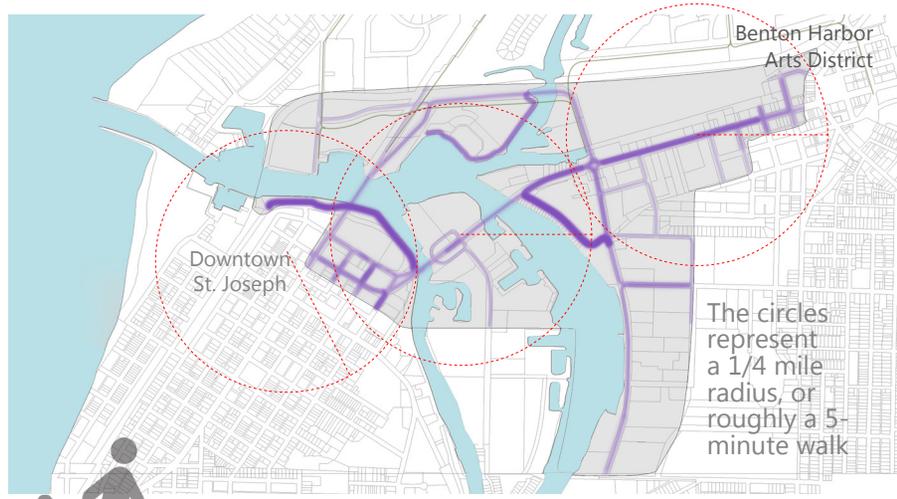
### Pedestrian-Friendly Street

Local streets should be narrow, lined with trees and sidewalks, and feature parallel parking. Operating speeds should be slow by design, including pavers when possible.

### Courthouse Green

A terraced public park overlooking the inner harbor can be located behind the existing courthouse (see p. 16 and 55), which also enables residential views of the harbor from further inland.

# WALKABILITY



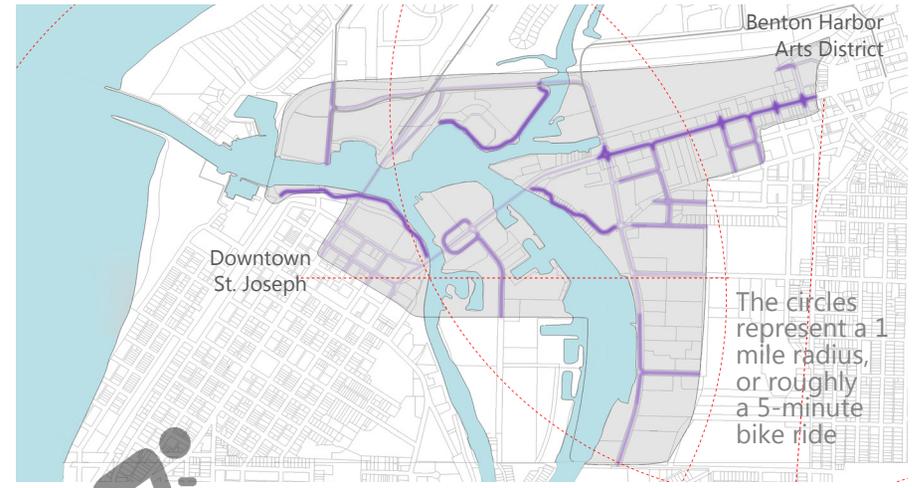
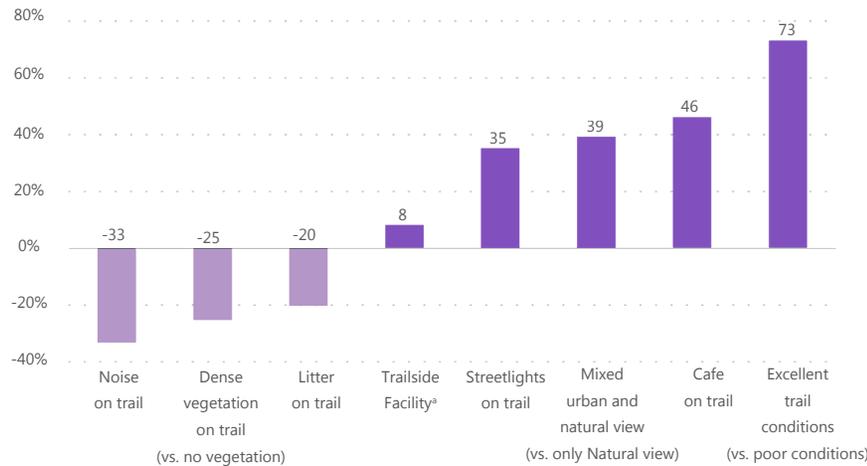
## Walking



The map roughly summarizes how walkable the study area is today. Although distances are theoretically walkable, in reality the design of the urban environment is often disconnected and unsafe for pedestrians.

## Amenities Matter

Trails with better conditions and more amenities have higher rates of usage<sup>1</sup>



## Biking



The map roughly summarizes how bikable the study area is today. Distances are very bikable, but the environment is often uncomfortable or unsafe for average cyclists and families.

## Trails

People who live near trails are

**50%**

More likely to meet physical activity guidelines.<sup>2</sup>

Good trails that have many points of easy access and connectivity have direct positive health implications for the community.

## Walkable Communities

People who live in walkable neighborhoods are

**2 times**

as likely to get enough physical activity as those who don't.<sup>3</sup>

Having trails makes economic sense as a way to promote physical activity and reduce medical costs.

For every **\$1**

spent on trails, there was almost

**\$3**

in savings in direct medical cost.<sup>4</sup>

1. "Trail Characteristics as correlates of urban trail use." *American Journal of Health Promotion*.  
 2. "Neighborhood Environment, Access to Places for Activity, and Leisure-Time Physical Activity in a Diverse North Carolina Population." *American Journal of Health Promotion*.  
 3. Linking objectively measured physical activity with objectively measured urban form. Finding from SMARTRAQ. *American Journal of Preventive Medicine*.  
 4. "Cost analysis of the built environment: the case of bike and pedestrian trails in Lincoln, Nebraska." *American Journal of Public Health*.

### Network of Streets and Blocks

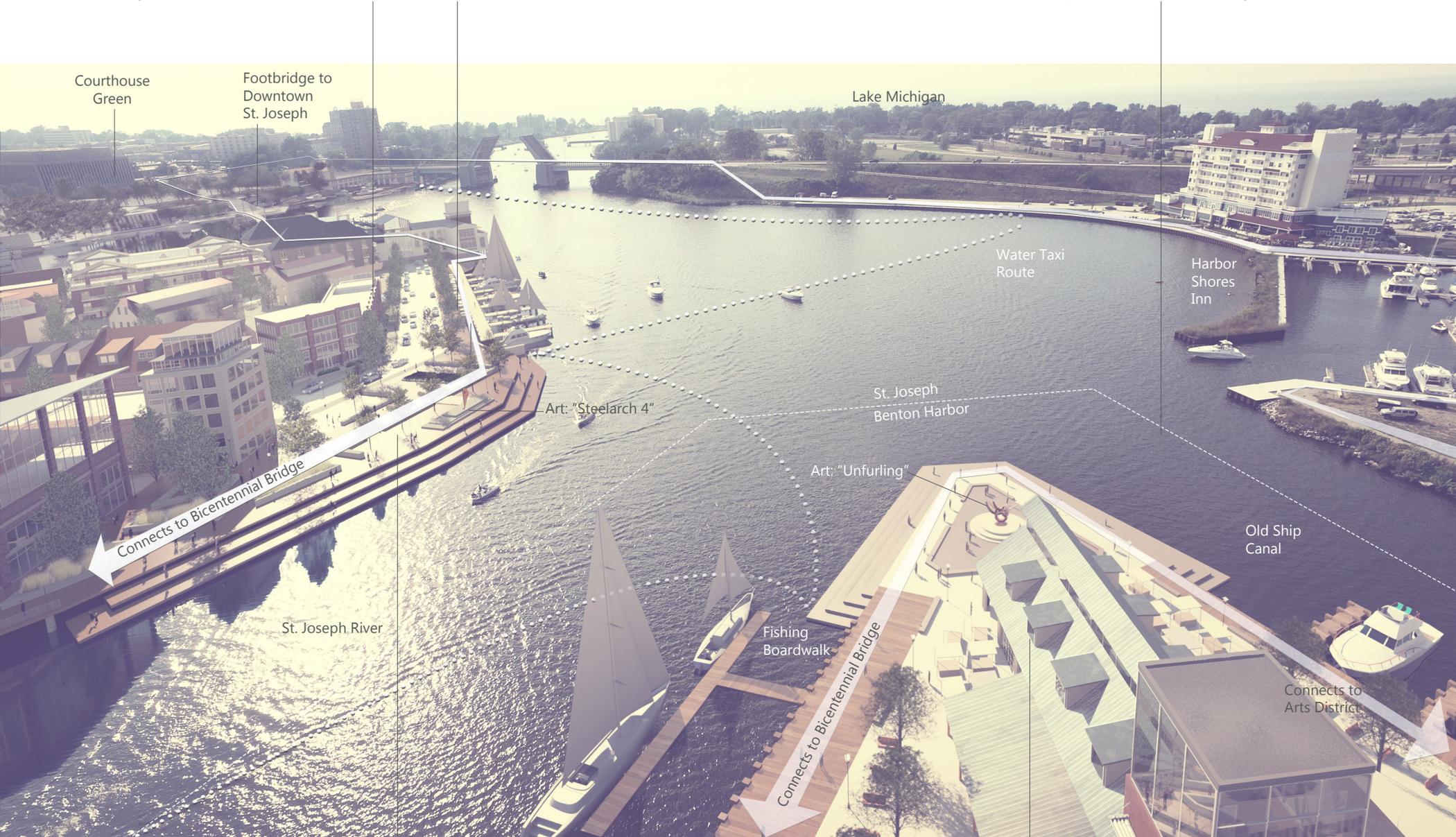
Besides continuous public waterfronts, a fine network of streets and pedestrian passages helps to promote walkability. The more routes, the better.

### Vehicular Access for all Seasons

Continuous public waterfronts are important, but care should be taken, when possible, to enable slow vehicular traffic to ensure that public spaces, retail, and restaurants are active even in winter.

### Ferry Route to Chicago

A 2004 preliminary analysis of feasibility for Lake Michigan Ferry Service identified the Old Ship Canal in Benton Harbor as the preferred location for a ferry terminal.



Concept view of Twin Cities Harbor looking West  
Also refer to pages 3 and 66

### Continuous Public Waterfront Trail

This view illustrates a long-range vision for an interconnected waterfront trail system which connects the Twin Cities with each other.

### Amenities

A diverse mix of quality public spaces, restaurants, retail, docks, fishing opportunities, and water-based activities promote walking more than boring landscaped trails.

# Trails

## Benton Harbor Master Plan

### EXCERPTS

"The city will work to maximize the benefit of the rivers as public amenities by improving public access to the riverfront and providing public open space adjacent to waterways." <sup>1</sup>

"Construct an interconnected trails and sidewalk system throughout the city that links residential neighborhoods to community facilities." <sup>2</sup>

## St. Joseph Master Plan

### EXCERPTS

"Promote walkability and pedestrian friendliness within the city." <sup>3</sup>

"Moving forward, the City will continue to fill gaps in the waterfront trail network and establish connections to link both sides of the St. Joseph River. Establishing these connections will require coordination with private property owners and significant collaboration with neighboring jurisdictions." <sup>4</sup>

### Soft Edge

Wetlands and restored shorelines are good places for quiet boardwalks and trails, but also for education about natural systems.



Closer to residences, tree-lined paths can offer some protection from sun and wind, but even here species habitat can be provided.



In certain places where boating activity is more concentrated, turf grass and docks may be an appropriate solution.



Where many people gather for passive recreation, a mix of paved trails, turf grass, terraces, and native species habitat can be ideal.



### Hard Edge

One principle is not to make all trails the same. Urban centers should include urban waterfront paths with minimal landscaping.



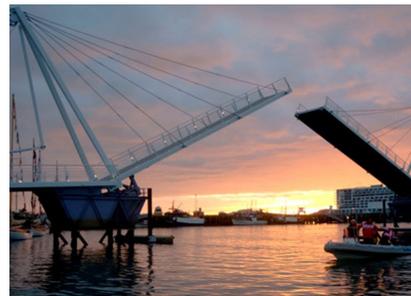
## Water Taxi

Seasonal water taxis such as the one shown here in Oklahoma City can help to interconnect dispersed parts of the Twin Cities, especially for the benefit of visitors. The map on page 43 illustrates a concept water taxi route.



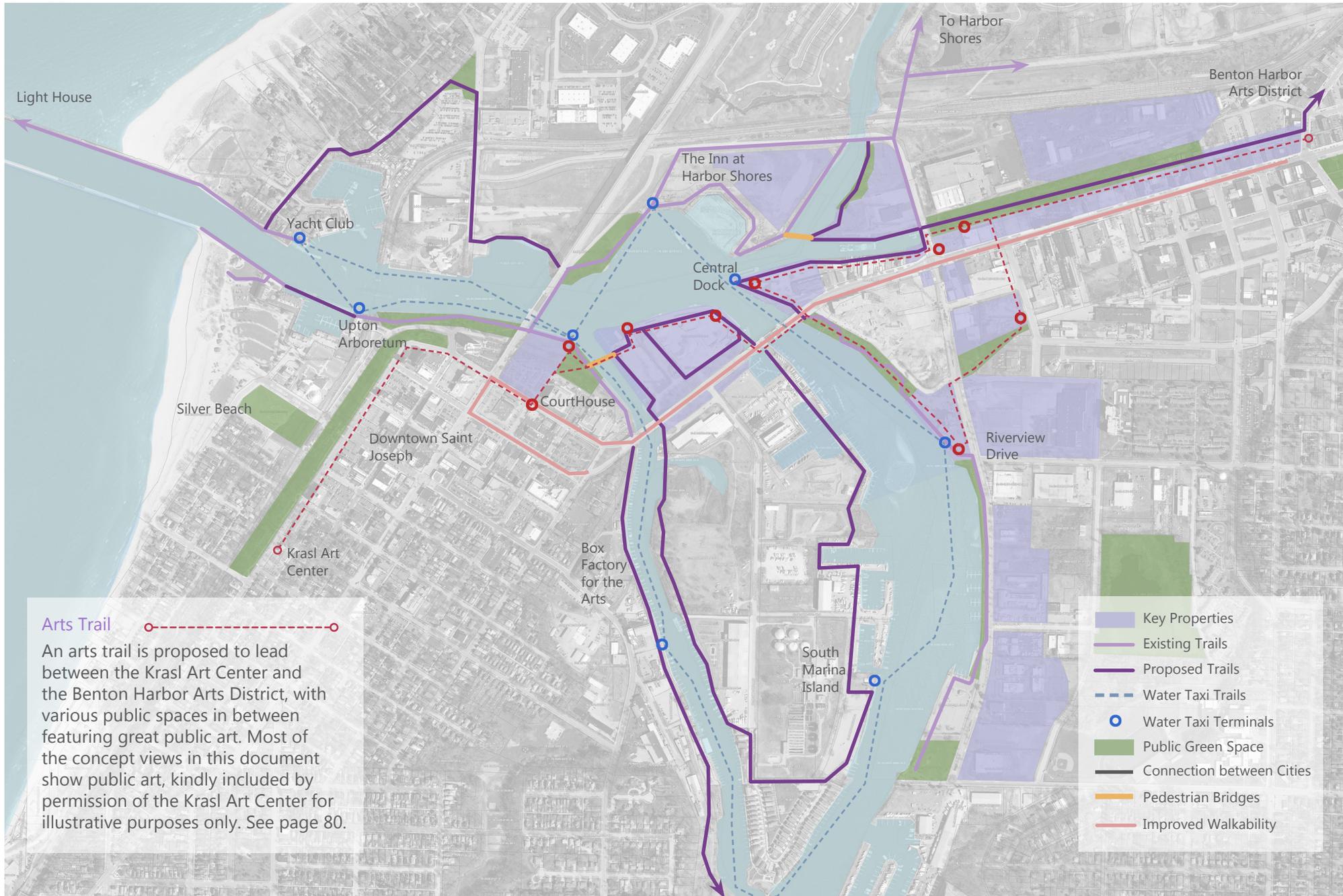
## Footbridges

Bridges dedicated to pedestrians and bicycles are more affordable and are effective in connecting isolated points along the harbor. Bridges can be designed to enable sailboat and tall motor yacht traffic.



1. Benton Harbor Master Plan, 2010, p. 20  
2. Benton Harbor Master Plan, 2010, p. 53  
3. St. Joseph Master Plan, 2008, p. 83  
4. St. Joseph Master Plan, 2015 Draft, p.40

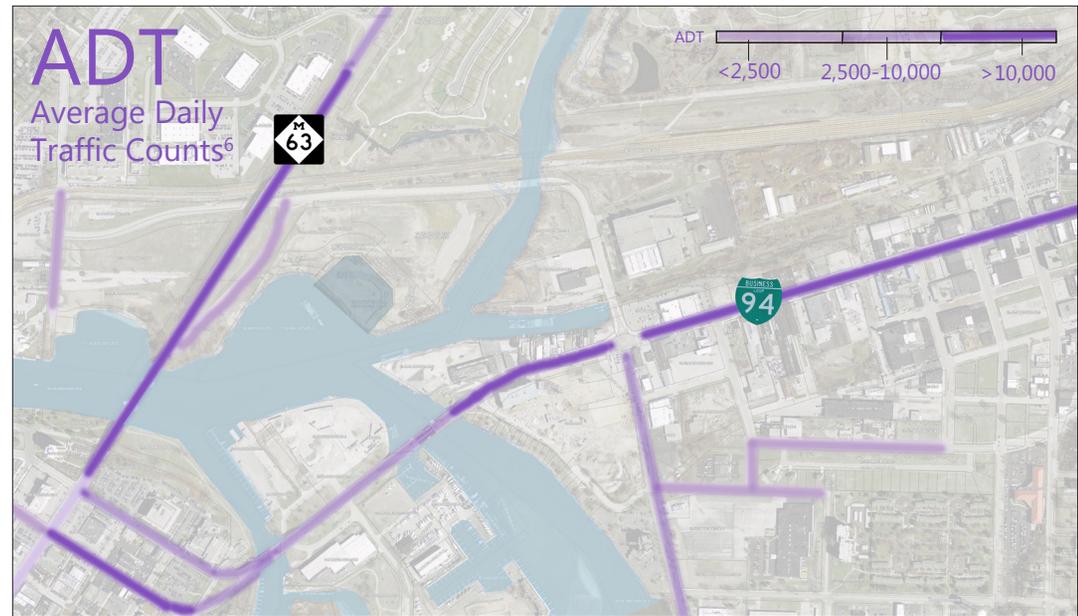
# Trails Map



# Walkable Streets

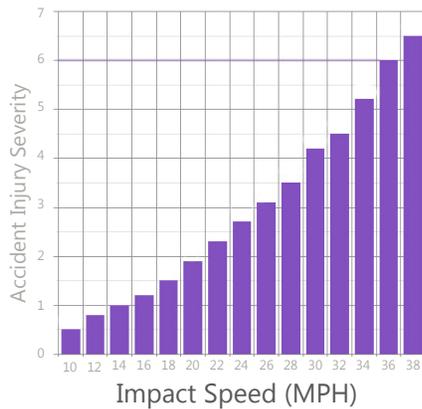
**Most Pedestrian Fatalities** occur on local streets, and virtually all streets located within the area are not designed for safe or comfortable pedestrian activity. The posted speed limit upon entering Benton Harbor on the Bicentennial Bridge is 40 MPH, and the one-way loop system of Port and Ship Street has pedestrian visitors to the courthouse dashing across traffic moving at similar operating speeds, even though the posted limit is 30 MPH. Wide roads encourage fast driving, but fast driving does not promote safe, vibrant, livable, economically diverse communities.

For example, 60 decibels is average conversational noise, but 30 MPH speeds already begin to yield slightly uncomfortable noise levels and impact sidewalk dining and residential opportunities.<sup>1</sup> The following is a brief introduction to why the goal should be average operational speeds **below 25 MPH** on all streets within the study area.



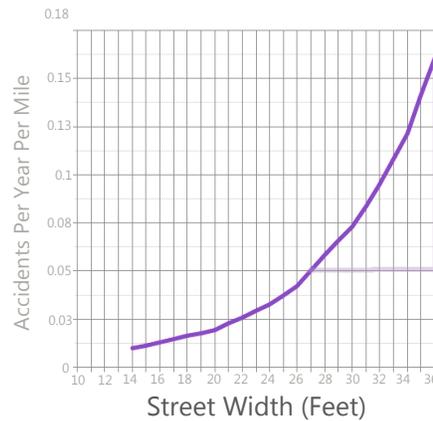
44

Walkability



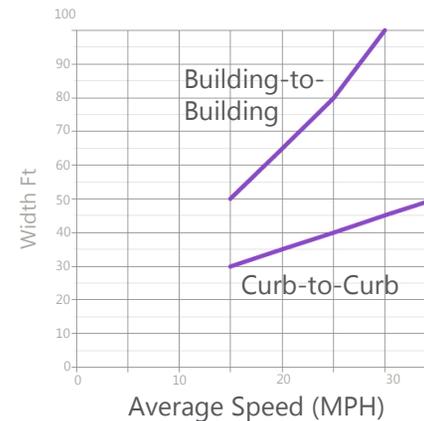
## 35 MPH Kills

The impact on an average adult pedestrian of an automobile moving at 35 MPH results in an Accident Injury Severity that is indexed as 6, which is fatal. For elderly people, that index is reached at speeds of 25 MPH.



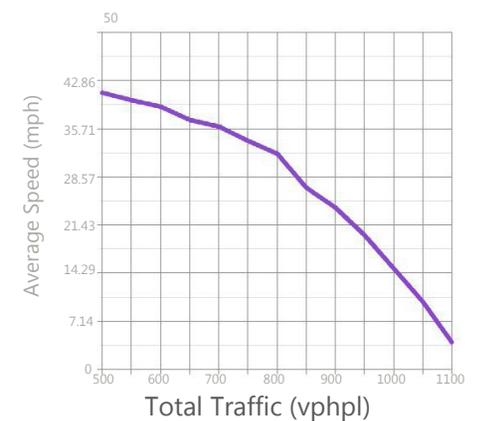
## Wide Streets Injure

The number of injury accidents measurably increases as streets become wider. On average, there is a **485% increase in injury accidents** when comparing a 24 ft street width with a 36 ft street width.<sup>3</sup>



## Every Foot Matters

The curb-to-curb width of streets has a direct impact on average operational speeds, but even the width of the street space from building face to building face is a significant factor in driving behavior.<sup>4</sup>



## Slow Speed

Counter-intuitively, slow operating speeds actually increase traffic capacity — more vehicles per hour per lane. Roundabouts and slow operating speeds can help traffic to flow more smoothly.<sup>5</sup>

1. Comparison of Maximum Noise Estimates, Appendix H-3 Stryker Brigade Combat Team Draft EIS, 2003

2. Impact Speed and the a Pedestrian's Risk of Severe Injury or Death, AAA Foundation for Traffic Safety, September 2011

3. Provided by Peter Swift, P.E., Traffic Engineer

4. Improving the Residential Street Environment, Federal Highway Administration, 1981

5. Arterial Average Capacity, Provided by Peter Swift, P. E., Traffic Engineer

6. Map based on data and map provided by the Southwest Michigan Planning Commission

### Slow Operating Speeds on Main Street

Since 2003, MDOT is charged to incorporate Context Sensitive Solutions (CSS) wherever possible, which is intended to help transportation solutions “fit” local community needs. Furthermore, resources such as Complete Streets standards and the Institute for Transportation Engineers (ITE) Manual for Designing Walkable Urban Thoroughfares are broadly accepted by the engineering profession and can help to shape slower operating speeds and on-street parking even on busy Main Streets. In general, cities that have a vision for their DOT-controlled streets and patiently push towards it are more likely to see implementation in the long run.

### Street Trees

Tree-lined streets provide shade for pedestrians, mitigate the urban heat island effect, protect pedestrians from traffic, and provide a comfortable feeling of enclosure on wider streets.

### Urban Frontage

Buildings should front onto streets at all times, including frequent entrances. On Main Streets, at least 80% of the ground floor should feature transparent glass, and signage should be geared to pedestrians.



Whirlpool Building

Downtown  
St Joseph

Blade  
Sign

Sidewalk  
Seating

Rumble Strip  
Turning Lane

Main St.

Pervious  
Pavement

Wide  
Sidewalks  
and Barrier  
Curbs

Concept view of Main Street Benton Harbor looking West  
Also refer to pages 9 and 71

### Bike Lanes

Slow operational speeds are key, as bike lanes are to be comfortable to average cyclists - not just Tour de France participants. Painting the bike lane a solid color visually reduces the drive lanes and further slows traffic.

### On-Street Parking

Parking in front of Main Street retail is critical, for the reasons described on page 35. But besides sustaining commercial establishments, parked cars also form a safety barrier for pedestrians and help to narrow the street space to naturally slow traffic. A vibrant Main Street environment can not be sustained without on-street parking. Also, on-street parking reduces the need for off-street lots.

# ENVIRONMENT

## Industrial Legacy

The harbor area's industrial past has left it with numerous documented contamination sites, the majority of which include old black foundry sand. These sites have been listed by the Michigan Department of Natural Resources Part 201 remediation program. There are no longer any Superfund sites within the study area, and experts expect remediation costs to be moderate.<sup>1</sup>

## Map Key<sup>2</sup>

-  Contamination Site
-  Leaky Underground Storage Tanks
-  BEA\*  
\*Michigan Baseline Environmental Assessment (BEA) allows people to purchase or begin operating at a facility without being held responsible for existing contamination
-  Current Wetlands
-  Potential Wetlands and Shoreline Restoration Sites  
\*Areas which are likely to have conditions suitable for wetland restoration efforts

## Shoreline Restoration

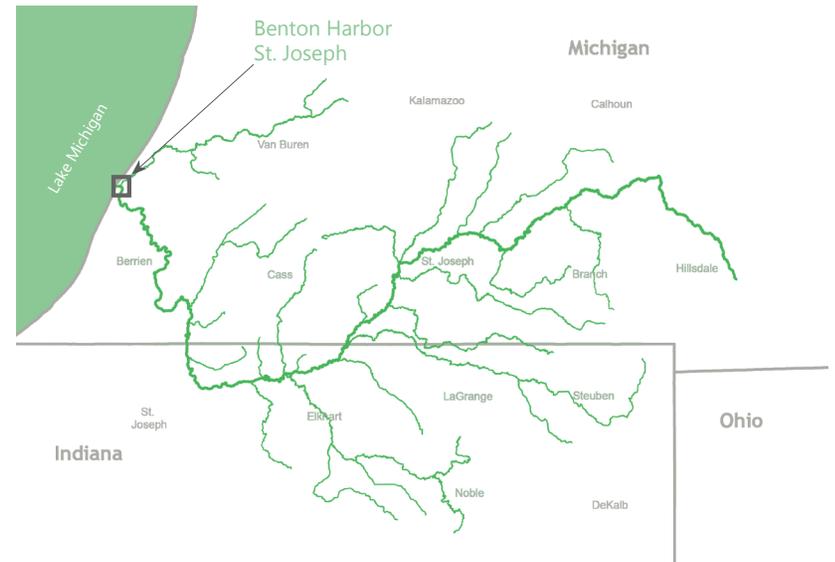
The recreational value of waterways often leads to the proliferation of turf lawns down to the water's edge. This high maintenance, shallow-rooted turf contributes to shoreline erosion problems, the delivery of fertilizers and pesticides to lake water and the loss of habitat. Parts of the study area are very suitable to be returned to a more natural state while enhancing fish and wildlife habitat and preventing erosion and runoff.<sup>3</sup>

## Wetland Restoration

Wetlands help to alleviate stormwater issues, improve water quality, and provide species habitat. "The City should look to protect and restore habitat areas within the community. Wooded areas, wetlands, ravines, and waterways are examples of areas that should be protected."<sup>4</sup> This map and the concepts within this study illustrate how wetland protection and restoration can be part of a successful urban redevelopment strategy.

## St Joseph River Watershed Management Plan

The St. Joseph River Watershed is the third largest river basin in Michigan, consisting of 4,685 square miles in 15 counties. This watershed is used largely for agriculture (70%), and approximately 1.5 million people live within it. **Nearly 100 % of the basin's population relies on groundwater for drinking water.**<sup>5</sup> The redevelopment of the Twin Cities harbor can set a model for watershed stewardship.



1. Based on interview with Marc Florian, Environmental Technology Consultants, October 29, 2015  
 2. Map based on maps provided by the Southwest Michigan Planning Commission / May not show all contamination sites  
 3. Michigan Natural Shoreline Partnership website  
 4. Benton Harbor Master Plan, 2010, p. 66 - Also refer to St. Joseph Master Plan, 2015 Draft, p. 17

5. Andrew DeGraves, Watershed Coordinator, St Joseph River Watershed Management Plan

### Riverview Plaza Redevelopment

The site of the existing Chase building is a good candidate for mixed-use redevelopment due to its waterfront and proximity to activity centers further north. Quality public spaces on the waterfront can include stepped embankments, a plaza, and waterfront dining. See pages 50-51 for additional concepts on how South Riverview Drive can meaningfully connect with other parts of the study area.

### Seasonal Structures

If transient boat slips were provided, existing businesses on South Riverview Drive could benefit from seasonal structures for dining, entertainment, vendors, and fishing-related activity. This concept is inspired by a similar arrangement on the Root River in Racine, Wisconsin.



Whirlpool Corporation

St Joseph River

Art: "Folwarczny.Five"

Concept View looking North along Riverview Drive  
Also refer to pages 11 and 75

### Transient Boat Slips

South Riverview Drive businesses could benefit from easier access by visiting boaters.

### Shoreline Restoration

Restored species habitat can help to improve fishing opportunities along an expanded public boardwalk system in Benton Harbor.

### Riverview Boardwalk

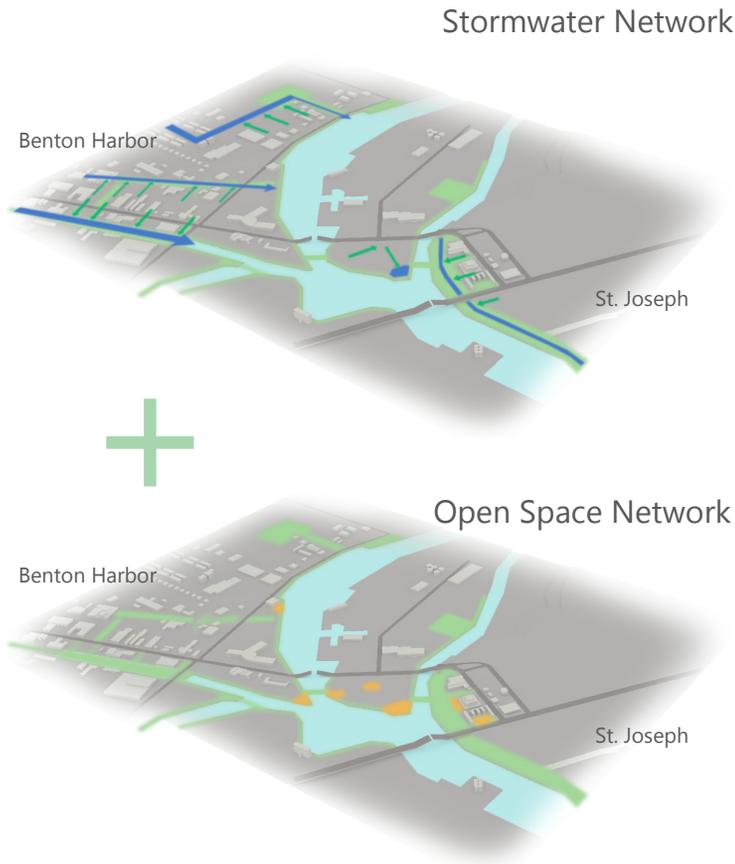
Boardwalks are a good alternative to hard-edge seawall waterfronts when densities are lower, as on South Riverview Drive. This can help to give the Benton Harbor waterfront distinction and can promote shoreline restoration efforts.

# Green Infrastructure

## Principles of Green Infrastructure

Berrien County Master Plan<sup>1</sup>

1. Connectivity is key, and context matters.
2. Green infrastructure should be grounded in science and land-use planning methods and practice.
3. Green infrastructure can and should function as the framework for conservation development patterns, by planning for and protecting it prior to development requests.
4. Green infrastructure is a critical public investment that should be funded up front.
5. Green infrastructure benefits nature and people.
6. Green infrastructure respects the needs and desires of landowners and other stakeholders.
7. Green infrastructure requires connections to activities within and beyond the community.
8. Green infrastructure requires a long-term commitment.



Street Bioswale



Bioswale



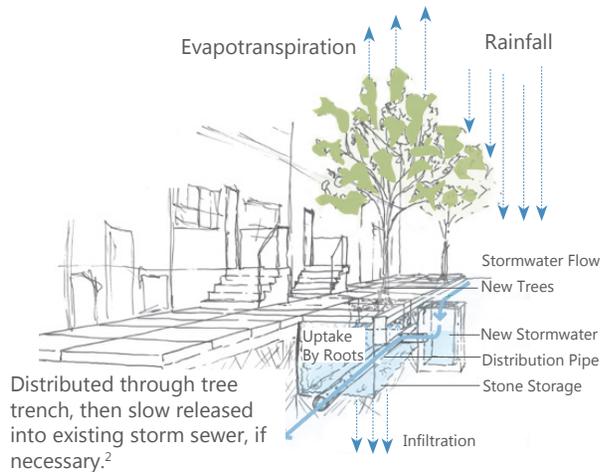
Stormwater Park



Detention Park

## Adding Value through Stormwater Infrastructure

Especially in urban locations where land should be used efficiently, stormwater infrastructure should be meaningfully integrated into public space design. This avoids placeless swales and detention ponds fenced in by chain-link and instead yields usable public spaces that add value to surrounding urban real estate, as shown here using examples in Portland and Toronto. This also means that public space networks should be coordinated with natural drainage paths.



1. Berrien County Master Plan, 2015, p. 13

2. Image source: Philadelphia Water Department, Watersheds Blog, Sep 22, 2011

# Open Space Network

## for Stormwater and Value Access

Connectivity is key for effective stormwater management. It can also help to spread the value of waterfronts deep into neighborhoods. A common mistake is to build a continuous “wall” of development, which hinders easy access from inland properties to the the public waterfront. Human scale and walkability are important considerations: the most successful waterfront communities have very porous networks of blocks and pedestrian passages, with streets leading from the waterfront every 300-500 feet. By contrast, South Riverview Drive has streets spaced 1320 feet from each other - a five-minute walk just to access the next route opportunity.

- **Benton Harbor** 1320 ft
- St. Joseph, MI State Street 330 ft
- Saugatuck, MI 330 ft
- Wequetonsing, MI 250 ft
- Harbor Springs, MI 450 ft
- Holland, MI Historic District 330 ft
- South Haven, MI 500 ft
- Kenosha, WI 330 ft

New green streets and/or public pedestrian passages can help to spread value more effectively.



### Existing Network

The existing network is the result of past landfill efforts, industrial land use, and automobile-oriented development patterns. Only a few public streets currently connect the river with inland properties on 11th Street, where some parcels are owned by the City of Benton Harbor and the non-profit Cornerstone Alliance.<sup>1</sup>



### Concept Network

This map illustrates how future green streets and/or public pedestrian passages could help to connect inland real estate with the St. Joseph River. For example, if an agreement with private property owners could be made, part of the existing Bread & Bar parking lot could be replaced by a public street with diagonal on-street parking.

1. Source: Berrien County public records, GIS website

# Connectivity

There currently exists a temptation to disconnect streets in favor of employee parking in Benton Harbor. This should remind of the work to vacate Court Street in St. Joseph during the 20th century - a move that helped shape a local real estate landscape which is not very productive today when compared to the well-connected blocks of downtown St. Joseph.

Instead of eliminating them, this study finds additional opportunities for connections are possible. These can benefit pedestrian and vehicular routes, but also help to implement green infrastructure solutions for improved urban stormwater management and attractive public space design.



## "A" and "B" Streets

A useful strategy for preserving good street connectivity within the context of large parking needs is to employ a system of A and B streets.<sup>2</sup> Downtown Holland, Michigan is an instructive local example of this. Here the main street (8th Street) would be considered an "A Street" featuring continuous building fronts and excellent pedestrian environments. Some connecting side streets, however, are treated strategically as "B Streets" with reasonable walkability despite the absence of buildings. Landscaped parking screening and street trees are key here.



An existing 70 ft-wide utility line easement<sup>1</sup> leads from 12th Street to the river and is therefore not available for buildings. However, a public stormwater park with a possible "shared space" street could be implemented to increase the number of high quality connections to the river in this part of Benton Harbor.

1. Based on survey provided by Peter Colovos, Prairie Real Estate Group  
2. Thadani, Dhru A. The Language of Towns & Cities: A Visual Dictionary. New York: Rizzoli, 2010  
3. Based on map provided by the Southwest Michigan Planning Commission

### Riverview Plaza

The stormwater park can lead to a pedestrian amenity at the St. Joseph River, as also illustrated on page 47.

### Riverview Drive - "B" Street

This part of Riverview Drive can be developed as a "B Street", which can improve the pedestrian experience both for people crossing through, but also for parking lot users. Also, shallow 25 ft deep "liner buildings" can be used as leasable space and still preserve most surface parking.



Concept View towards Riverview Drive from 12th Street  
Also refer to pages 12 and 74

### Stormwater Park

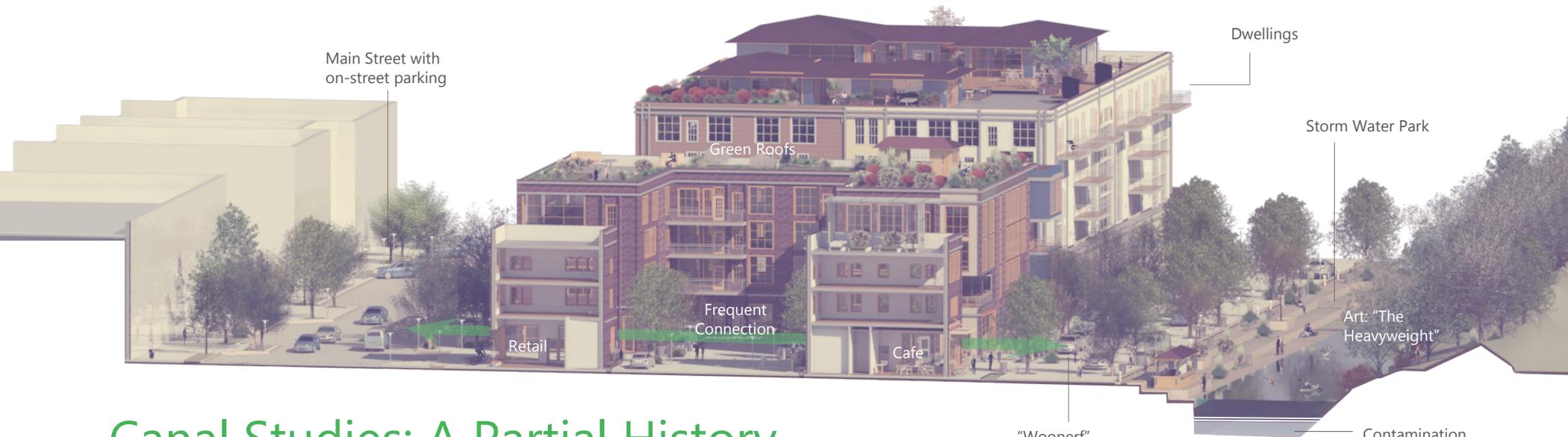
This concept takes advantage of the existing utility easement and drainage paths to establish a public stormwater park with a "shared space" street for pedestrians, cyclists, and slow-moving vehicles. New mixed-use residential loft buildings face this amenity and even gain views to the river.

### 12th Street - "A" Street

This street, which leads to Main Street, the Old Ship Canal, and the Arts District, is presented here as a high-quality pedestrian environment.

### Wall Street - "B" Street

This street preserves connectivity but can also serve to park many vehicles - perhaps leased as dedicated parking for local businesses.



# Canal Studies: A Partial History

## The Importance of Political Will

The City of Benton Harbor owns most of the Old Ship Canal, which has been filled in over the decades. Its industrial past has left it contaminated, but the contamination is considered to be manageable. Many past studies have been completed and almost led to implementation - a humbling historical fact. Not all plans considered infrastructure investment as effective leverage for adjacent profitable redevelopment. But the overarching lesson is that no plan can be implemented without consistent political will.<sup>7</sup>

1979

Multi-modal Transportation Facility<sup>1</sup>

A plan to establish a commercial port for bulk freight west of Whirlpool's Tech Center. Included a mechanical conveyance system and railroad spurs.



\$6-8 MILLION

1987

The 150 Boat Slip Canal<sup>2</sup>

A plan to reestablish a canal ending at Colfax Ave, for recreational boat slips. Included a linear park, parking, and no bridge at North Riverview Drive.



\$5.5 MILLION

1990

The Water Feature and Marina<sup>3</sup>

A plan for a suburban-style park and water feature. The east end included a fountain pond and amphitheater, the west ended at a new marina.



\$7.2 MILLION<sup>5</sup>

2009

The Canal With a Turning Basin<sup>4</sup>

A plan for a recreational boat canal with a turning basin for yachts at 10th Street. Included pedestrian bridge at Riverview Drive and rerouting traffic via Hinkley Street.



\$5.2 MILLION<sup>6</sup>

1. Johnson, Johnson & Roy, Inc., Feasibility Study, "Commercial Harbor, St Joseph, Michigan, 1979" provided by Marc Florian of ETC  
 2. Harland Bartholemew & Associates, Inc., "Twin Cities Area-Wide General Development Plan, 1987" provided by Marc Florian of ETC  
 3. The Abonmarche Group, "The Old Ship Canal Plan, 1990" provided by Marc Florian of ETC  
 4. Benton Harbor Cities of Promise Signature Project Plan provided by Marc Florian of ETC

5. Cost is only for the water feature park, not the marina.  
 6. Cost does not include environmental remediation of contaminants discovered later in the study.  
 7. Historical records and general contamination and political assessment provided by Marc Florian, ETC.

### Primarily Residential

Investment in infrastructure here should be coupled closely with maximized redevelopment of adjacent land. A pedestrian-oriented stormwater park can cultivate a livable spine within a gritty urban center. Multi-family loft units catering to young professionals are ideally positioned near the Arts District, the harbor, and employment opportunities.

### Shared Space "Woonerf"

Woonerfs are living streets, as originally implemented in the Netherlands. They emphasize shared space for cars and pedestrians, traffic calming, and very low speed limits. Woonerfs keep traffic extremely calm but still enable access for limited commerce and residential activities.

### Terraced Stormwater Infiltration

The Old Ship Canal has been reimagined as a linear stormwater park to encourage sustainable local infiltration and enable high residential densities. The non-navigable retention canal would be lined and positioned above isolated contamination that exists in the ground below.



Concept View of revitalized Old Ship Canal looking West  
Also refer to pages 11 and 73

### Limited Commercial

The woonerf could support a limited number of commercial establishments, such as a cafe, to help activate the space throughout the day. Frequent pedestrian connections to Main Street, which should feature on-street parking, creates an armature of two parallel corridors that compliment each other.

### Outdoor Room that Connects

The Old Ship Canal is here considered as a pedestrian oriented outdoor room that helps to boost quality of life and connect the harbor, the Benton Harbor Arts District, employment, and the multi-family residential.

# COUNTY COURTHOUSE



YEARS TO MOVE<sup>2</sup>

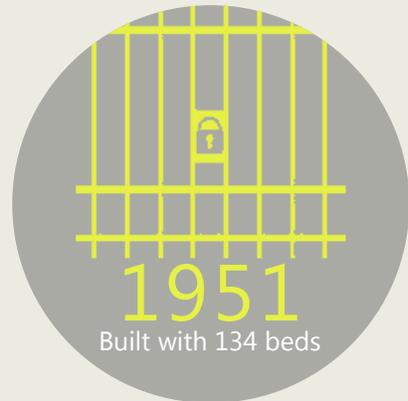
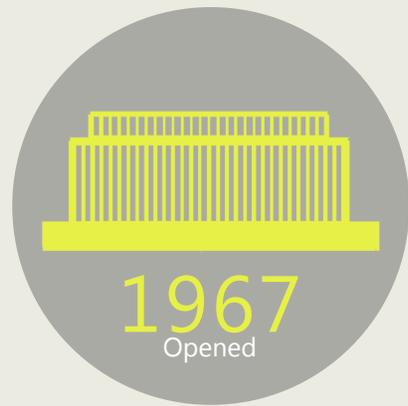
Since 2009, Berrien County has been implementing a plan to centralize County services in order to “maximize returns on future infrastructure investments.” In the long run, this plan includes moving the jail and courthouse out of St. Joseph to a campus located in Benton Township.<sup>1</sup>



**Napier Ave**  
The site by LMC was partly chosen to place most residents within a 20-minute car-ride of the campus.

**Michigan State Constitution** Article VII § 10 Removal of county seat. Sec. 10.

“A county seat once established shall not be removed until the place to which it is proposed to be moved shall be designated by two-thirds of the members of the board of supervisors and a majority of the electors voting thereon shall have approved the proposed location in the manner prescribed by law.”<sup>3</sup>

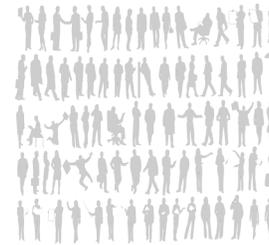


341  
Current number of beds in the jail after the 1993 renovations

7,143  
Total number of inmates handled during 2014

The real need for improved jail capacity and facilities, especially for the long-term inmate population, is largely driving the plan to move all County facilities to a consolidated campus in Benton Township.<sup>4</sup>

388 total employees



work at the courthouse (268) and the jail (120). Downtown St. Joseph’s largest employer helps to support local businesses, especially in the winter, and city leaders are not enthusiastic about the County’s plan to move.<sup>5</sup>

10.5 non-taxable acres

This is the approximate area of land controlled by Berrien County at Port Street, not including the jail and courthouse. This land is currently dominated by surface parking lots, lawn, and residual space, but could be creatively redeveloped to be economically productive.

\$100MIL

Estimated total cost of moving the jail and courthouse to a new campus on Napier Avenue in Benton Township.<sup>2</sup>

\$500k-1.5M per year



Estimated inmate transportation cost given a scenario where the courthouse remains downtown but the jail moves to Napier Ave.<sup>2</sup> A scenario that builds a second jail dedicated only to long-term inmates has not been studied.<sup>6</sup>

1. Berrien County Master Plan, 2015, p. 40  
2. Matuszak, John. “Riverfront Location Not Likely to Change Any Time Soon.” The Herald Palladium, 18 Oct. 2015  
3. Constitution of Michigan, 1963  
4. Matuszak, John. “Bailing out the Berrien County Jail.” The Herald Palladium, 18 Oct. 2015

5. Provided by Berrien County via John Hodgson, Manager, City of St. Joseph  
6. Provided by Dan Fette, Berrien County Community Development Department

### Marine Division Dock

Concept for a Sheriff Department Marine Division dock, offices, and yard. The division currently keeps its boats on trailers, and increased harbor development increases the need for emergency services.

### County Buildings

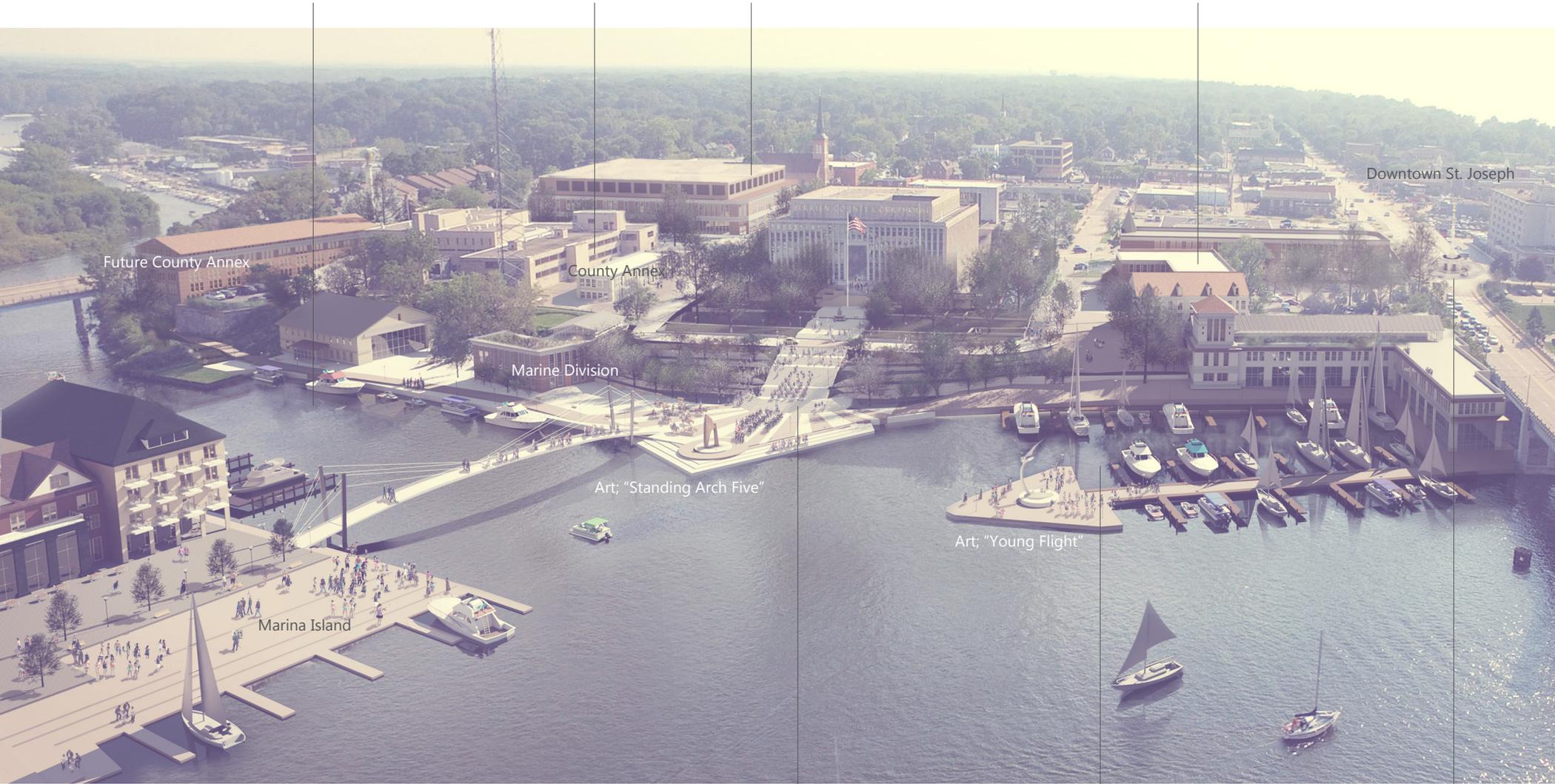
FEMA requirements restrict private development near jails, so this concepts creatively sites future County facilities in strategic locations.

### Parking Structure

A new 5-level parking structure with limited office liners can replace existing surface lots and increase County parking capacity. Certain floors can be secured and dedicated to County staff, while others can be paid public parking. A similar size parking structure in Portsmouth, NH charges \$1.25/hour and brings in \$3 million per year for the city.

### Mixed-Use Redevelopment

The former County parking lot can now be redeveloped as profitable and taxable private redevelopment with harbor views and easy access to Downtown St. Joseph.



Concept View of County Courthouse Area redevelopment  
Also refer to pages 12 and 78

### Civic Terraced Park

Provides a beautiful public space as a "front door" to the community, with a possible arboretum expansion and spectacular views over the inner harbor. An operable or tall pedestrian bridge connects to Marina Island and Benton Harbor.

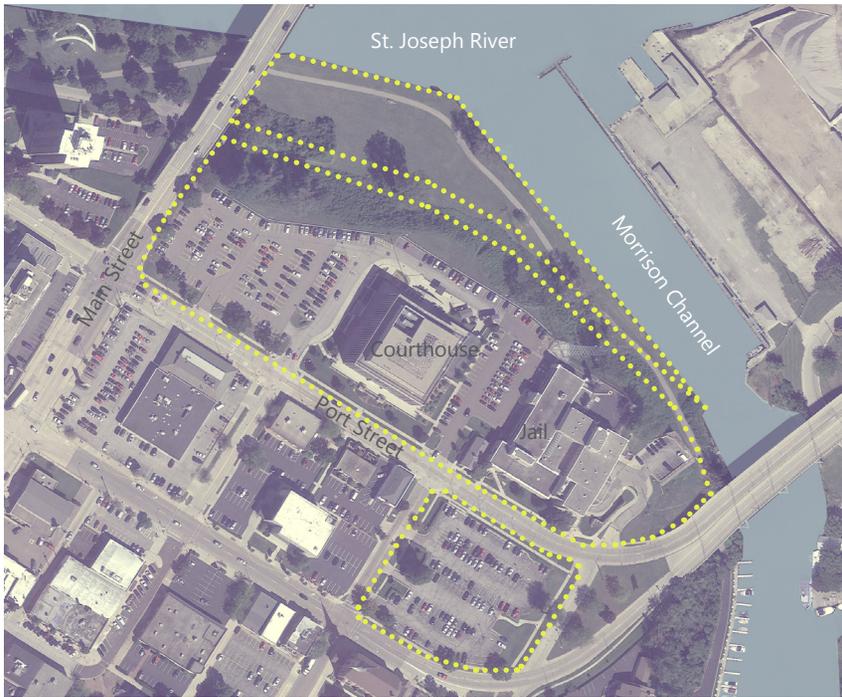
### Transient Slip Marina

Within easy walking distance to downtown, this marina could provide transient slips for boaters who visit the Twin Cities from other parts of the Great Lakes.

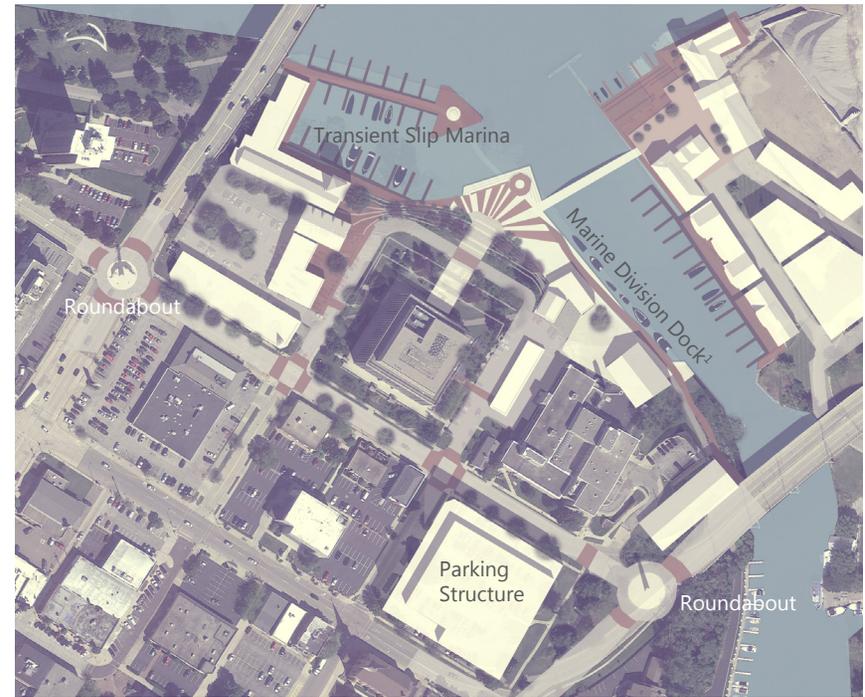
### Roundabout

Roundabouts calm traffic speeds, increase intersection capacity, and provide opportunities for monuments; in this case, an iconic column at Main St and Port St welcomes people on M-63.

# County Courthouse



**Existing County Properties**



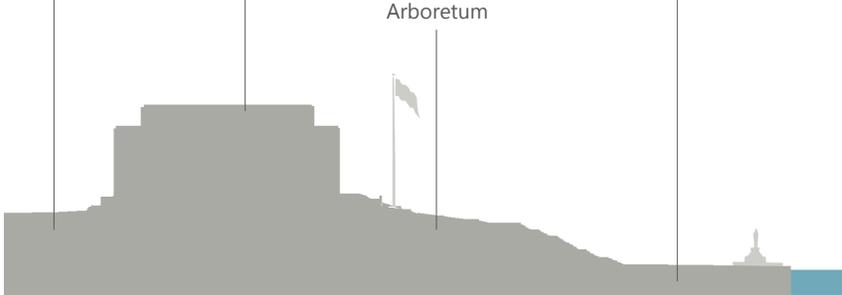
**Concept for Redevelopment**

**Port Street**  
Improved to increase safety and enhance walkability

**Courthouse**  
Renovated to present second face to inner harbor and park

**Park**  
Terraced park celebrating local agriculture or an expanded Upton Arboretum

**Plaza**  
A waterfront civic space for community events



**Port Street**  
Redesigned as a pedestrian-friendly mixed-use street

**Mixed Use**  
1st floor retail, business and residential above

**Residences**  
Rowhouses or loft condos with harbor views

**Marina**  
Provides new transient slips for boat visitors



1. Based on discussion with Lt. Martin Kurtz, Commander of the Berrien County Sheriff Department's Marine Division

### Wide Sidewalks

Important streets in mixed-use neighborhoods require wide sidewalks, which can promote outdoor seating and other profitable activity.

### Landscape

The most important civic building in the County can be enhanced through landscaping, including a strong tree line that shelters and helps to define the site.

### Roundabout Monuments

This concept reconfigures the one-way loop system of Port and Ship Street into two-way streets with slow operational speeds and increased capacity. This is partly accomplished by placing roundabouts at each end of Port Street to help traffic flow slowly but smoothly, and to provide opportunities for civic monuments that terminate the vistas and help visitors to navigate.



Courthouse

Art: "Allegheny Drift"

Parking Structure

Port Street

Concept View of County Courthouse Area redevelopment on Port Street looking East  
Also refer to pages 14 and 76

### Metered On-Street Parking

Free parking encourages slow customer turn-over, and at a busy place such as the courthouse it presents a conflict between County and business users. Metered parking is a proven way to manage parking effectively to sustain business.

### Two-Way Street

Port Street is reimagined as a two-way street with slow operating speeds and improved crosswalks.

# IMPLEMENTATION

## Preliminary Zoning Analysis

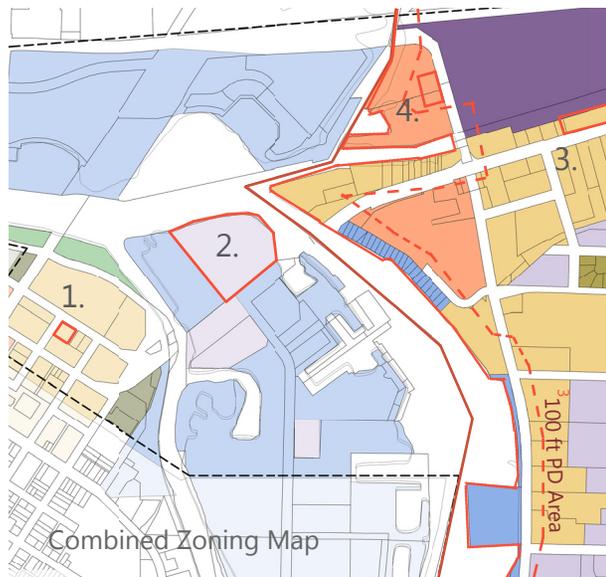
Zoning enables cities to regulate land uses and the physical form of private development in accordance with a zoning map and its respective ordinances. Conventionally, most zoning ordinances tend to emphasize the separation of land uses and prioritize limits on development through minimum setbacks and similar dimensional restrictions. Such zoning assumes that development is likely to threaten the value of nearby real estate, and therefore works hard to separate things from each other. This tends to result in inflexible conditions that can't easily respond to changes in the market. Furthermore, such ordinances are typically not based on a clear vision of how development should take place, zoning typically enables a great range of possibilities, as long as minimum buffers are not violated. For communities that have no particular vision for city

form, this works well. However, if a community aspires to enable the private sector to build places in a certain way, conventional zoning usually falls short because it was not written to yield specific outcomes or ranges of outcomes. Both Benton Harbor and St. Joseph currently have this kind of zoning. This can be frustrating to cities, which is one reason the Planned Unit Development (PUD) process is sometimes seen as a solution in which all design decisions are negotiated, which in turn can frustrate developers due to its uncertain outcome. St. Joseph's Water Recreation District forces the PUD process and Benton Harbor forces a similar PD process on any property within 100 ft of its shoreline.

Approx. 50% of Harbor Study Area must use PUD

### Existing Zoning in St. Joseph

- Light Industrial
- Waterfront Recreation
- Multi Family
- Parks and Trails
- Commercial Office
- Mixed Use



### Existing Zoning in Benton Harbor

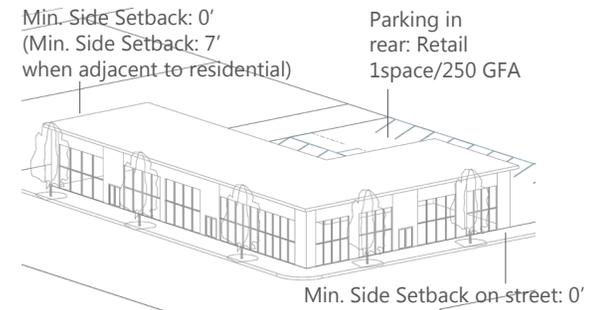
- Heavy Industrial
- Light Industrial
- Office Commercial
- Waterfront District
- General Commercial
- Single Family Residential
- Mixed Use

## 1. Commercial Office

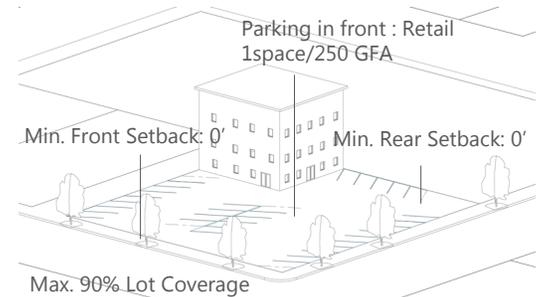
### CO-B

St. Joseph

Primarily intended for office, commercial, administrative, and institutional functions. In this district, offices, convenience retail and parking facilities are permitted uses, while other uses like general retail and food and drink establishments are not permitted. Residential uses are acceptable only if the residences are above the ground level. Scenarios A and B illustrate how widely divergent outcomes could result from the same unpredictable zoning on Port Street.



### Scenario A: Pedestrian-friendly



### Scenario B: Automobile-friendly

1. Benton Harbor Zoning Ordinance  
 2. St. Joseph Zoning Ordinance  
 3. Any property within 100 ft of water must use the PD process

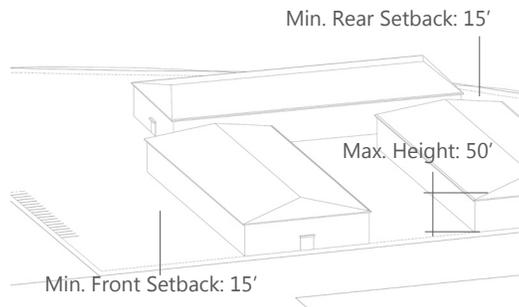
Reference from St. Joseph Zoning Ordinance  
 1. Side Setbacks Table 5.1  
 2. Parking 18.5  
 3. Lot Line Table 5.1

## 2. Light Industrial

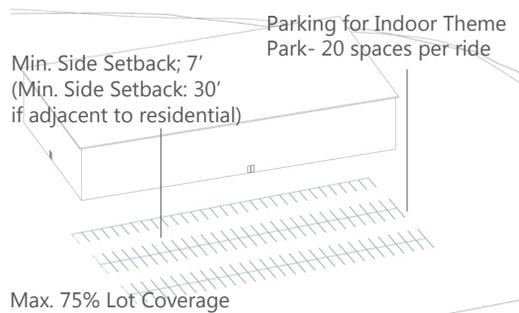
# I-1

St. Joseph

Intended for wholesale and warehouse activities including manufacturing, compounding, processing, packaging, treatment and assembly of various kinds. The nature of activities here should not be hazardous to surrounding districts, but are to be separated regardless. While industrial uses and parking facilities are permitted, retail, food and drink establishments, mixed use and residential uses are not permitted in this district - illustrated on Marina Island.



### Scenario A: Light Industrial



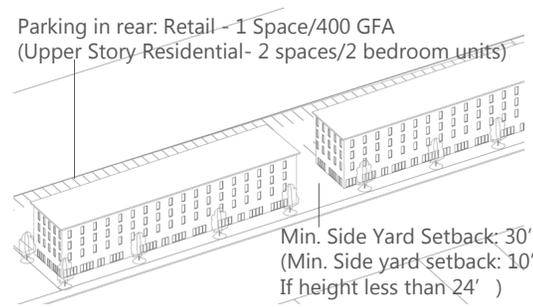
### Scenario B: Indoor Theme Park

## 3. General Business

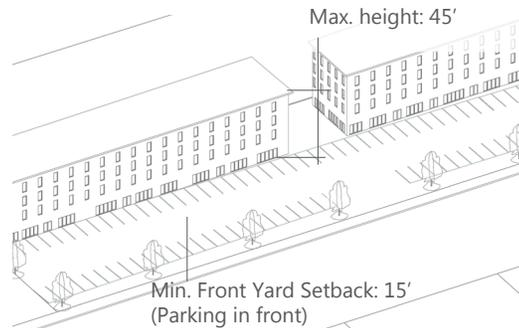
# G-B

Benton Harbor

Intended for major commercial uses for the service of local residents, workers and visitors. Commercial uses, offices, food and drink establishments, and some public building uses are permitted in this district. While single family residential is not permitted, multi-family residential is permissible when placed above ground floor. Scenarios A and B illustrate how widely divergent outcomes could result from the same unpredictable zoning on Main Street.



### Scenario A: Pedestrian-friendly



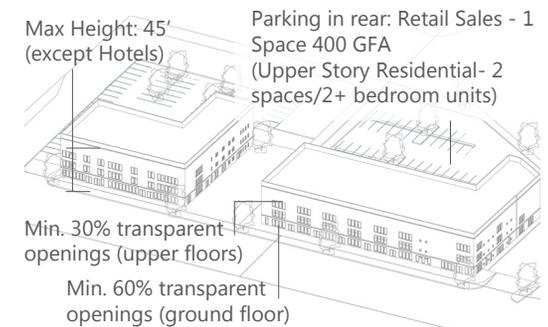
### Scenario B: Automobile-friendly

## 4. Mixed Use

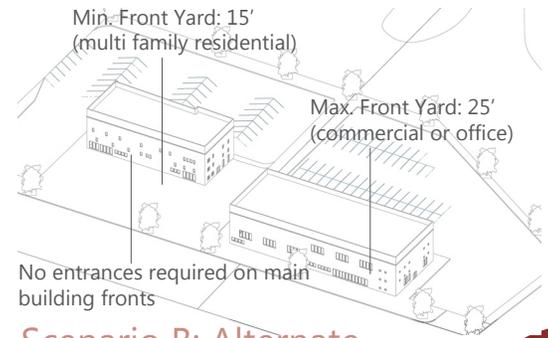
# M-U

Benton Harbor

Intended to combine commercial, retail, residential, office and recreational uses in a functional manner and at a limited scale to serve locals of varying income and lifestyle. Multi-family is only permitted above the ground floor and rowhouses are not permitted. Scenarios A and B illustrate how widely divergent outcomes could result from the same unpredictable zoning. Efforts to minimum window areas are minimal and could easily be abused.



### Scenario A: Pedestrian-friendly



### Scenario B: Alternate

Implementation

# PUD

## Planned Unit Development

The Planned Unit Development (PUD) process is intended to enable creative implementation without strict adherence to established zoning regulations, usually through staff negotiations and extensive public hearings. The outcome can be fraught with uncertainty, depending on how closely aligned a developer's vision is with the undeclared vision of individual neighbors and city representatives. This process can be especially frustrating for out-of-town investors, and the unpredictability can cost the developer the economic advantage of their project.

### Summary of Method

1. Developer must submit an application for review. Submittal includes fees, plans and elevations, and a business plan.
2. Committee accepts or rejects application.
3. Public hearing is held. (In St. Joseph, at least two hearings.<sup>1</sup>)
4. Upon Decline: Developer may apply again in one year.
5. Upon Acceptance: Developer may commence construction.
6. Repeated for every PUD application thereafter.

### Considerations

- Often used for mixed-use and compact developments.
- Outcome can be very unpredictable for the developer and the city. Even though the city often perceives itself to have control over the process, legally binding review criteria often end up yielding unsatisfactory compromises.
- Based on the financial goals of the developer
- Although intended to facilitate master planned approaches, negotiated compromise often produces stand-alone buildings with no coherent relation to a whole.

"I won't go into specific numbers, but let's just say the apt and thorough due diligence accomplished by the citizens and governing bodies of St. Joseph resulted in our long term holding of the asset being rendered non-viable. The result is we must switch to plan 'B'."

-Jim Koch

Developer of CVS, St. Joseph, commenting on the sale of the property<sup>2</sup>

Liability

Asset

### Input Invested In Small Amounts Over Time

Development progresses on a project-by-project basis over time, and major decision making is done at every public hearing.

### Addition to Current Zoning

PUD is designed as an amendment or alternative to the current zoning policy.

### Developer-based Vision

The vision, motivation and value of each project is the responsibility of the developer. Public influence is primarily reactionary.

### City Controls Final Verdict

The City has complete authority over the Yes/No final verdict of all projects brought through the PUD process. Quality Control is limited.

### Architectural Freedom

Architectural standards are left up to the vision of the developer. Minimum Design standards typically are given.

### Construction happens according to Agreement

Any adjustments to the project that changes the grounds of agreement, require a repeated PUD process.

### Uncertainty for Developer

The prolonged PUD process with little assurance of approval is a cause for concern and may hinder developers' ability to gather appropriate financing.

### Control Based Project Requirements

Process seeks to ensure that deviations from the current zoning does not get out of hand.

### Minimal Public Realm Connectivity

Public spaces are addressed property-to-property, but the big picture is generally not controlled.

### Public Involvement

Public decides the immediate fate of the development, but on unpredictable terms.

1. Provided by John Hodgson, Manager, City of St. Joseph, Dec 15, 2015

2. "CVS Sale: Simple Economics", Moody on the Markets, Blog post dated July 25, 2015

# FBC

## Form-Based Code

Form-Based Codes (FBCs) represent an alternative to conventional zoning and the PUD process. Instead of prioritizing land use, FBCs prioritize the form of new development, making them more flexible to respond to changing market conditions. Typically, FBCs enable a specific range of forms in mapped areas, with the intent of yielding a final outcome that resembles the vision set by the city. Developers tend to appreciate FBCs because the reasonably flexible rules can be known up front.

### Method

1. The city, in conjunction with architectural and planning professionals, as well as the public, work to create an achievable vision for their community. This vision should be based on market research and building industry input.
2. Regulations are passed and applied thereafter.
3. No public hearings for every project. Developers must keep to agreed regulations.

### Considerations

- Focus is on placement, scale and form of the building
- Intense consideration of quality of public realm, street walkability and connectiveness
- Can help to preserve historical fabric
- Based on a detailed community vision
- Can help to incorporate “missing middle” densities e.g. townhouses, live/work units.

“Form-based Codes create a defacto master developer context across multiple ownerships to enable incremental, open-source economic development.”



Some cities in Michigan with FBCs<sup>1</sup>

-Scott Polikov  
Form-based Economic  
Development on Main Street

Implementation

## Heavy Initial Investment of Time

Majority of research, time, funds, and decision-making is invested at an initiating point for the City.

## Zoning Replacement or Improvement

Form-based code is designed to supplement if not entirely replace the current zoning.

## Public Vision Based Development

A development plan is constructed around specific criteria that the public wishes to see upheld in all incoming projects.

## City Controls First Entry

All incoming New Development must fulfill the criteria set by the City in order to build. If criteria is met, projects cannot be denied.

## Explicit Architectural Vision

Architectural characteristics are decided and regulated to protect the quality of the public realm.

## Ease of Adjustment after Approval

Adjusting any part of the project is allowed, as long as the project still keeps to the code.

## Predictable Expectations

The approval for a project is dependent on the developer's ability to abide by the code, therefore they have control over the influential factors.

## Image-Oriented Project Requirements

Creates rules about the size, positioning and density of the development, as well as its representation in the community.

## Quality of Public Realm Defined

The public experience is considered holistically for the entire neighborhood, one project at a time.

## Public Involvement

Public decides the long-term vision of the town through the initial participatory process.

# Funding Opportunities

## A Partial Summary of Embedded Opportunities

This series of maps introduces where the potential for funding opportunities is embedded within the study area. Based on the site analysis and the concepts presented within this document, one can map out areas which may be most likely to attracting grant funding available through state, federal, and trust programs. The maps break this down into different types of funding and summarize the types of grants, some rough criteria, and typical funding caps.

By comparing the different maps, one can quickly see which areas have the highest potential for pooling diverse grants. For example, a revitalization of the Old Ship Canal in Benton Harbor, conceptually illustrated on pages 52-53, brings together many criteria that can help to attract existing grants.

This is not an exhaustive list of possible grants, but only serves to introduce some commonly available opportunities. Also, funding always relies in part on local political will and consensus.

- Stormwater Management
- Shoreline Restoration
- Wetland Restoration



**Coastal Zone Management Grant<sup>1</sup>**  
NOAA Funds Administered by Michigan DEQ  
 Typically **\$100,000**  
Several  
 Public Access, Environmental Development, Fishing & Recreation, Water Trails

**Great Lakes Restoration Initiative<sup>2</sup>**  
U.S. Fish & Wildlife Service  
 Typically **\$100,000**  
Several  
 Public Access, Fishing & Recreation, Economic Development

**Great Lakes Fishery Trust<sup>3</sup>**  
Michigan Based Non-Profit Program  
 Typically **\$100,000**  
Several  
 Ecosystem Health & Sustainable Fish Population/Education, Public Access/Fishing

**Sustain our Great Lakes Program<sup>4</sup>**  
National Wildlife Federation  
 Several **\$100,000**  
 Habitat & Ecosystem Health, Wetlands & Shoreline Habitat Restoration

**Michigan Natural Resources Trust Fund<sup>5</sup>**  
Michigan Department of Natural Resources  
 Up to **\$300,000**  
 Trails & Greenways, Wildlife/Ecological Corridors, Urban Area Projects, Wetland Management

**National Coastal Wetlands Conservation Grant Program<sup>6</sup>**  
U.S. Fish & Wildlife Service  
 Up to **\$100,000**  
 Wetland Improvement & Restoration, Economic & Recreational Benefits for Anglers/Boaters, Flood Protection

**Urban Waters Small Grant<sup>7</sup>**  
U.S. Environmental Protection Agency (EPA)  
 Up to **\$60,000**  
 Underserved Communities, Restoration of Urban Centers, Runoff Pollution, Diverse Partnerships

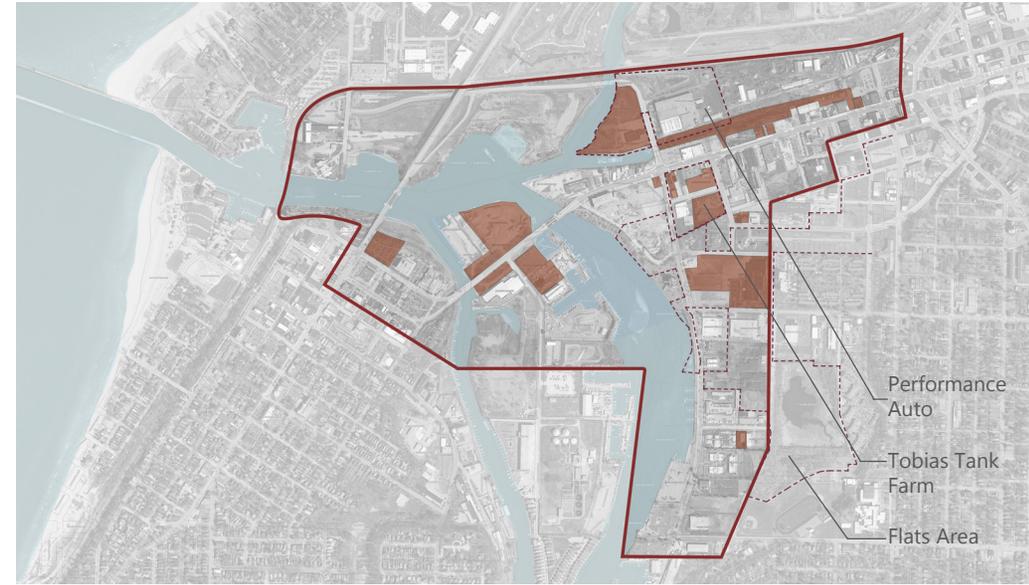
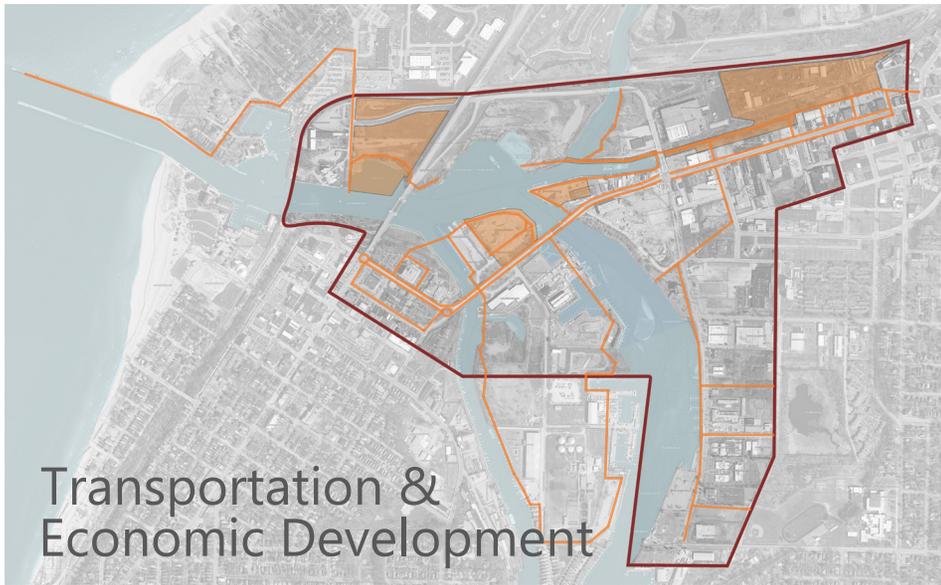
**NonPoint Source Pollution Control Grants<sup>8</sup>**  
Michigan DEQ (Federal Clean Water Act Section 9)  
 Typically **\$100,000**  
 Water Quality Improvement & Protection, Ability of Implementation

**Stormwater, Asset Management & Wastewater<sup>9</sup>**  
Michigan DEQ (SAW Grant)  
 Up to **\$200,000**  
 Construction & Design, Stormwater Management  
+ \$500,000 Asset Management

Name of Grant  
 Name of Grant Providers  
**\$ Grant Caps**  
 Partial List of Priorities

1. Coastal Zone Management Program. N.p.: Michigan Department of Environmental Quality Office of The Great Lakes  
 2. "U.S. Fish and Wildlife Service Announces \$960,000 for Wetlands and Habitat under the Great Lakes Restoration Initiative." U.S. Fish & Wildlife Service Newsroom. N.p., 25 Sept. 2015  
 3. "GLFT Grants." Great Lakes Fishery Trust. Web Ascender & Public Sector Consultants  
 4. "Sustain Our Great Lakes 2015 Request for Proposals." Sustain Our Great Lakes 2015 Request for Proposals. National Fish & Wildlife Foundation

5. "You Are HereDNR Grants Michigan Natural Resources Trust Fund." DNR. Michigan Department of Natural Resources  
 6. "Coastal." Coastal. U.S. Fish & Wildlife Service, 26 June 2015  
 7. "Urban Waters Small Grants." EPA. Environmental Protection Agency, 24 Nov. 2015  
 8. "You Are HereDEQ Water Onsite Wastewater Surface Water." DEQ  
 9. "You Are HereDEQ Grants and Loans." DEQ



Transportation Alternatives Program<sup>1</sup> **Up to \$1 MIL**  
 Michigan Department of Transportation  
 Replacing Automobile Trips, Streetscaping, Stormwater/Green Infrastructure

Michigan Natural Resources Trust Fund<sup>2</sup> **Up to \$300,000**  
 Michigan DNR  
 Trails/Greenways, Pedestrian Bridges, Recreation

Transportation Economic Development Fund<sup>3</sup> **Up to \$30 MIL**  
 Michigan Department of Transportation  
 Transportation need, Economic Development, Increase of Tax Base, Local Streets, On-Street Parking & MDOT Streets

Surface Transportation Program<sup>4</sup> **Varies**  
 U.S. Department of Transportation Administered through SWMPC  
 Transportation alternatives, Recreational Trails, Operational Improvements for Highways, Bridges, Highways

TIGER Discretionary Grants<sup>5</sup> **Average \$12.8 MIL**  
 Transportation Investment Generating Economic Recovery U.S. Department of Transportation  
 Transportation Needs : Safety, Innovation, & Opportunity

EDA Grants<sup>6</sup> **Typical Average \$500,000** **Ranges up to 15 MIL+**  
 U.S. Economic Development Administration  
 Economic Development, Innovation & Entrepreneurship, Facilitate Low Paying Jobs in Growing Clusters

Brownfield Redevelopment Grants<sup>7</sup> **Up to \$1 MIL + Per Applicant Per Year + \$1 MIL Loan**  
 Michigan Department of Environmental Quality  
 Reuse of abandoned, vacant, underutilized, contaminated properties.

Re-energize local economy, strengthen neighborhoods, benefit the environment, protect public health.

EPA Brownfield Grants<sup>8</sup> **\$200,000+**  
 U.S. Environmental Protection Agency  
 Environmental Cleanup (Contamination Sites & Leaky Underground Storage Tanks)

**Brownfield Incentives through Tax Increment Financing<sup>9</sup>**  
 Private parties will initially pay the costs of the eligible activities or sources other than BHBRA, with repayment resulting from tax increment revenues generated from the site.

**Benton Harbor Flats Area**  
 Benton Harbor Brownfield Redevelopment Authority  
**Up to \$12.5 MIL**

**Tobias Tank Farm**  
 Benton Harbor Brownfield Redevelopment Authority  
**Up to \$100,000**

**Performance Auto**  
 Benton Harbor Brownfield Redevelopment Authority  
**Up to \$1.8 MIL**

1. "MDOT Projects and Programs Grant Programs." Transportation Alternatives Program : Competitiveness & Eligibility Details  
 2. "You Are Here DNR Grants Michigan Natural Resources Trust Fund." DNR. Department of Natural Resources, n.d. Web. 08 Dec. 2015.  
 3. "Department of Employment and Economic Development." Transportation Economic Development (TED) Program. MDOT  
 4. "Revised Surface Transportation Program (STP) Implementation Guidance." Revised Surface Transportation Program (STP) Implementation Guidance. N.p., 25 July 2014

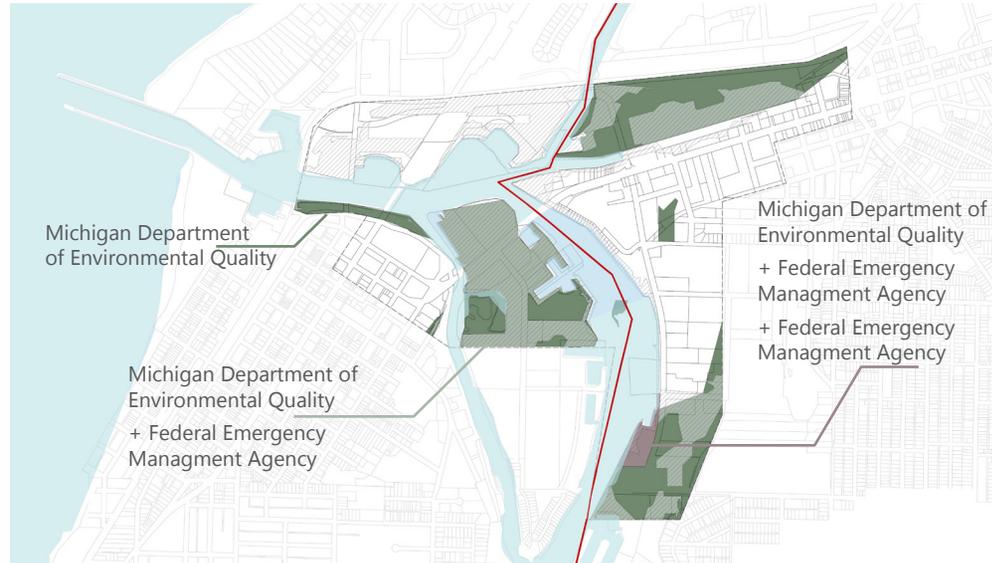
5. "TIGER Discretionary Grants." Department of Transportation. N.p., 6 Nov. 2015  
 6. "Overview of Economic Development and Challenges." OECD Economic Surveys: France, 2003, 23-49. CTC Technology & Energy  
 7. "Types of Brownfields Grant Funding." EPA. Environmental Protection Agency, 21 Oct. 2015  
 8. "Brownfields Grants." Brownfields. U.S. Environmental Protection Agency, 13 Oct. 2015  
 9. Going Green, a City on the Move! Benton Harbor, Michigan. Benton Harbor: Brownfield Redevelopment Authority, 2009

# Joint Municipal Planning

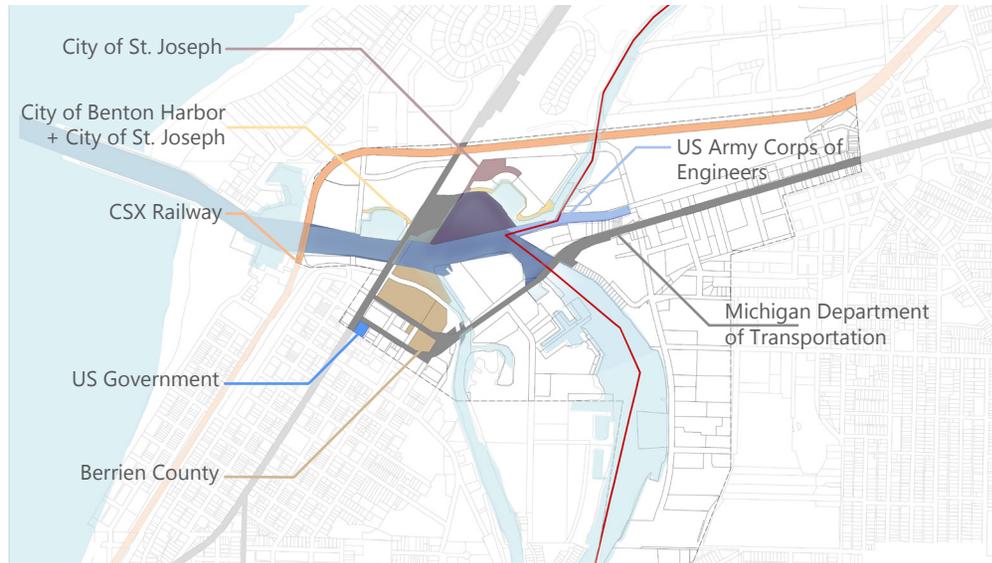
## The Harbor as a Community-wide Project

The harbor area includes a complex weave of jurisdictions at the local, county, state, and federal levels. These maps introduce the most significant authorities and how they are distributed across both cities. While significant transportation and environmental issues must be coordinated with non-local agencies, local government in Benton Harbor and St. Joseph sets the vision for implementation.

The two cities have separate planning and zoning powers, and their efforts are not always aligned. Because of this, both cities' master plans recognize the necessity to work collaboratively to accomplish certain goals. This study has approached the harbor as one that can benefit greatly from a common vision, shared by both cities. A common vision, however, requires coordinated implementation, for which a joint-municipal planning area can be recommended for the reasons introduced here.



Existing Distribution of Authority: **Environmental**



Existing Distribution of Authority: **Transportation and Facilities**

### Dredging and Navigation

Outside of the area maintained by the US Army Corps of Engineers, there is no long-term strategy to keep the river dredged for recreational use.

### Transportation

Completing trail networks requires significant collaboration.<sup>1</sup> Also, a combined vision for MDOT right-of-ways can increase chances for implementation.

### Commercial Port Planning

Collaborative planning regarding commercial shipping can help to preserve federal maintenance funds and help optimize waterfront land use.

### Environment

Green infrastructure planning, wetland and shoreline restoration makes more sense when looking at both sides of the river's environment at the same time.

### Zoning

Coordinated land-use planning can yield a more harmonious whole through a special zoning district that incentivizes desired development patterns.

### Funding

Many grant-giving organizations prioritize multi-jurisdictional planning and implementation efforts.

1. City of St. Joseph Master Plan, 2015 Draft, p. 40



# 12 Michigan Communities pursue Cooperative Community-Wide Planning

as a result of Michigan's Joint Municipal Planning Act. This act was adopted by the state in 2003 for the benefit of communities such as the Twin Cities. Under this act, Benton Harbor and St. Joseph can establish a Joint Planning Commission (JPC) to serve a defined Joint Planning Area - with or without zoning powers.<sup>1</sup>

There are many possible benefits and many possible scenarios for joint municipal planning. In west Michigan, Saugatuck, Douglas, and Saugatuck Township pursue joint planning. Here are a few other examples of joint municipal planning communities in Michigan, and some lessons learned.

## Communities Involved

City of Marshall and Marshall Township

City of Fremont, Sheridan Charter Township, and Dayton Township

Village of Bellevue Bellevue Township

Village of Kalkaska and Kalkaska Township

Village of Chelsea, Dexter, Lima, Lyndon, and Sylvan Townships

## Key Process Element

Created a Joint Master Plan and a Joint Zoning Ordinance for a Joint Planning Area that includes a campus of significant historic buildings.

Local officials and citizens engaged in a cooperative effort to build a thorough database and map set documenting community assets.

Created a Joint Planning Commission, a Joint Master Plan, and a single Zoning Ordinance in recognition of shared cultural & natural features.

Each community hired its own facilitator/advocate who jointly facilitated the process.

Washtenaw County planning staff invested extensive staff time in helping citizens and public officials through a lengthy cooperative process.

## Summary of Outcomes

JPC, formed to address a limited area, is focused on managing the redevelopment of a former hospital campus, new development and historical resources.

Joint Master Plan has smoothed the way for a number of development decisions. Advisory Joint Planning Commission appears to have little real effect.

Joint Planning Commission is still shared by both jurisdictions. Two separate zoning ordinances are now administered separately.

Village prepared and adopted a Joint Plan, and some areas with problematic septic systems came into the Village.

Process helped build relationships and supported a community-wide discussion on the direction of growth.

## Lessons Learned

JPC is now nearing the completion of the Joint Master Plan which will support the development of a joint form-based zoning ordinance, historic building work, and other development.

The development of a shared community-asset database can be very helpful. Cooperative planning also benefits from efforts to build relationships and communication linkages.

Some original administrative intentions were not realized, but other intentions such as the JPC have had a lasting positive impact.

Lack of regular communication spawned several erroneous assumptions on the part of each side.

Multi-jurisdictional planning process can be an important learning process and offers a good framework for local planning and zoning.

1. VanderMeulen, Joe, "Cooperative Land Use Planning with the Joint Municipal Planning Act", Planning & Zoning News, June 2005  
 2. VanderMeulen, Joe, "Cooperative Community-Wide Planning", Planning & Zoning News, October 2009



Existing View of Twin Cities Harbor looking West  
Refer to pages 16 and 55



Existing View of Outer Harbor from M.63 Blossomland Bridge  
Refer to pages 4, 5, 24 and 30



Existing view of Marina Island looking East  
Refer to pages 6 and 27



Existing View of Marina Island and Dock 63 commercial port  
Refer to pages 7 and 31



Existing view of Central Dock

Refer to pages 8 and 37



Existing View of Main Street Benton Harbor looking West  
Refer to pages 9 and 45



Existing View of Main Street and Riverview Drive  
Refer to pages 10 and 33



Existing view of revitalized Benton Harbor Canal looking West  
Refer to pages 11 and 53



Existing view of Riverview Drive from 12th Street  
Refer to pages 12 and 51



Existing view looking North along Riverview Drive  
Refer to pages 13 and 47



Existing view of County Courthouse Area and Port Street  
Refer to pages 14 and 57



Existing view of Inner Harbor from Courthouse Bluff  
Refer to pages 15 and 39



Existing view of County Courthouse Area  
Refer to pages 16 and 55

## Sense of Place

The existing Twin Cities harbor area has the power to inspire.

The design team worked hard to craft visionary illustrations that reflect an existing identity and spirit of place, even through redevelopment. Deeply embedded in the rusty seawalls, aged concrete, and historic buildings lies a DNA that is gritty, strong, and authentic. The reflective surface of the turning basin and the color of the earth create a certain light that belongs only here. If one were to lose these, to replace them with a cartoon of another place, the Twin Cities would in a way lose part of its soul. It would certainly lose some currency, as people increasingly seek communities that celebrate distinction.

The photos of existing places are included here to help compare and inform. But the sweeping panoramas also speak of character and potential that is uniquely Twin Cities. The authors of this study humbly aspired for the illustrated architecture, urban design, and landscape to be worthy of the place, and hope for future builders and decision-makers to be even better stewards of it.

# ACKNOWLEDGMENTS

© December 2015 Andrews University

This study was commissioned by the City of Benton Harbor and prepared by the 2015 Andrews University School of Architecture & Interior Design for the benefit of the Twin Cities community, and for God's glory.

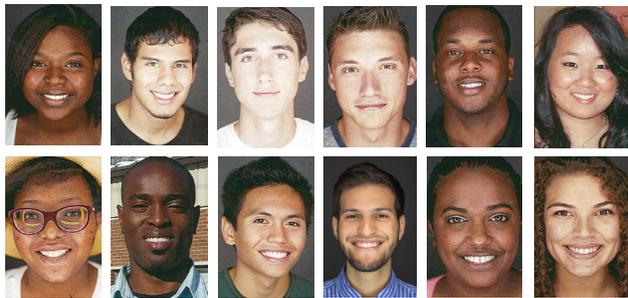
## STAKEHOLDER STEERING COMMITTEE

Members representing the City of Benton Harbor, the City of St. Joseph, the County of Berrien, and various private and non-profit entities are listed on page 19.

Committee organized and chaired by Marja Winters, Assistant City Manager and Director, Community and Economic Development Department, City of Benton Harbor

## ANDREWS UNIVERSITY

The graduate Urban Design Studio, led by Professor Andrew von Maur, has been recognized with six national awards for excellence in the field of urban design and town planning. Assistant Professor Troy Homenchuck provided digital illustration consulting. The team's international group of graduate students:



Cecelia Cameron (NY), Christian Campos (CA), Steven Davidovas (MD), Ryan Jacobson (MD), Orean Joseph (Antigua and Barbuda), YoungEun Joung (Korea), Neo Lehoko (South Africa), Jimmy Owino (Kenya), Gian Penaredondo (Philippines), Cesar Rojas (Colombia), Britney Thomas (Trinidad and Tobago), and Roxanna Torres-Colón (Puerto Rico)

## SOUTHWEST MICHIGAN PLANNING COMMISSION

This study was prepared in collaboration with the Southwest Michigan Planning Commission, which prepared base maps, data, meeting facilitation, and surveys. A detailed record of this information, as well as additional resource material, is available online at:

[www.swmpc.org/bhsjharbor.asp](http://www.swmpc.org/bhsjharbor.asp)

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Michael Wychers, Architect, The Prairie Real Estate Group

This study features images of works of art owned by the Krasl Art Center, used by permission.

## FOCUS GROUP MEETINGS

Berrien County Sheriff Department Marine Division

Oct 29, 2015 - Andrews University

Lt Martin Kurtz Marine Division Commander

Environmental Consulting & Technology

Oct 29, 2015 - ETC Offices

Marc D. Florian CPG, RG, CUSTP

Concerned Residents of Old Edgewater

Oct 30, 2015 - St. Joseph Yacht Club

Ginny Antonson

Bill Chickering 5th District County Commissioner

Brent Glendening

Liz Glendening President, Old Edgewater Association

Lois Goldrick

Charles and Lorraine Jespersen

Jim Kodis

Ann Keech

Steve Winkler Chairman, Edgewater Dunes HOA

Dock 63 Commercial Port

Nov 4, 2015 - Dock 63

Peter Berghoff, Operator, Dock 63

Ben Marvin, Controller, Dock 63

Boating Focus Group

Nov 18, 2015 - Andrews University

Tom Armon The Freedom Boat Club

Jeff Alisch St. Joseph Junior Foundation

Dave Gould President, St Joe Isle Yacht Club

Captain Jerry Link Fishing Charter Captain

Eric Johnstone Owner, Anchors Way Marina

Laura Lynn Boating Enthusiast

Cheryl Morris Anchors Way Marina

James McGee Local Boater

Gary Sisson St. Joseph Junior Foundation

Dave Topping Classic Boat Owner

# Index Map

## Key

- A. Vacant Site west of M-63
- B. County Courthouse Area
- C. Marina Island

- D. Central Dock
- E. Old Ship Canal
- F. Main Street and Riverview Drive

- G. 12th Street to River
- H. Riverview Drive at Britain Avenue
- I. South Riverview Drive



## A "Menu of Concepts" - Not a Master Plan

This document is not a master plan intended for implementation. It presents a collection of individual but inter-related concepts, principles, and data sets that are intended to inform decision-making and lead to formal planning and implementation. For some parts of the study area, the study presents multiple and divergent concepts. The reader can use this map to find site-specific concepts.

This study was commissioned by the City of Benton Harbor, led by a stakeholder steering committee representing: The City of Benton Harbor, The City of St. Joseph, Berrien County, and the private sector.

Prepared by Andrews University in collaboration with the Southwest Michigan Planning Commission.

