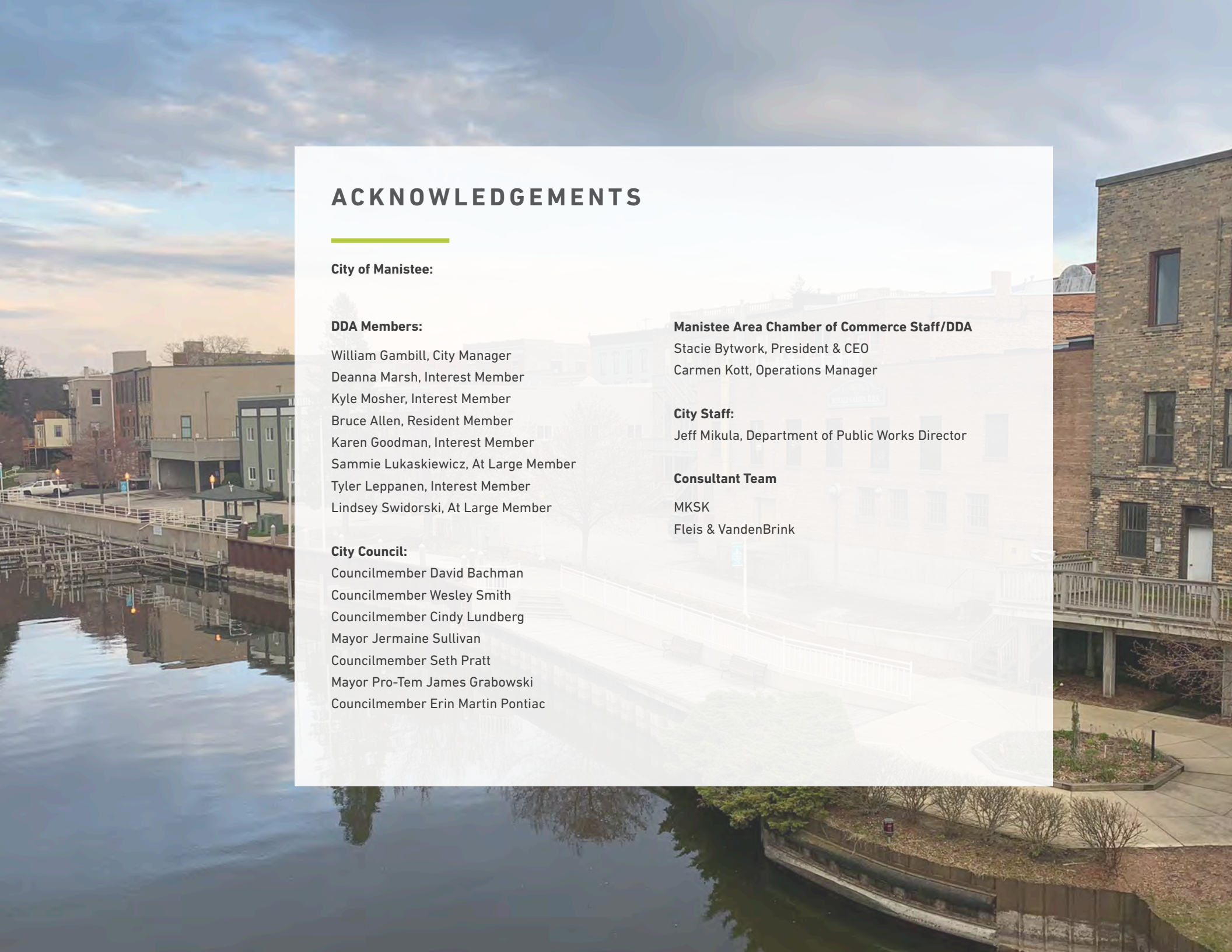
MANISTEE RIVER STREET CORRIDOR

DOWNTOWN MANISTEE michigan | THE CITY OF manistee MICHIGAN | FLEIS&VANDENBRINK DESIGN. BUILD. OPERATE. | MKSK

ENHANCEMENTS & FUTURE PLANNING

MANISTEE RIVER STREET CORRIDOR

Manistee, MI | February 2024



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ES EXECUTIVE SUMMARY

THE RE VISIONED RIVER STREET CORRIDOR SHOULD HAVE A CLEAR IDENTITY, BETTER CONNECTIVITY, ENHANCED PLACE MAKING, AND AESTHETIC IMPROVEMENTS

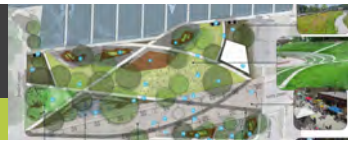
Manistee is a city located in the NW lower peninsula of Michigan on the shore of Lake Michigan. It has an extremely unique geographic setting with the Manistee River cutting through the town and connecting Manistee Lake with Lake Michigan. At a larger scale, it is encompassed by the Huron-Manistee National Forest. Recreation is abundant in the region with tourists visiting each summer for the miles of beach along Lake Michigan, the retail and dining along River Street, regional trail systems, camping in the National Forest, with world class golfing and fishing also being main attractions in the area. US-31 is the main north-south Highway and M-55 is the main east-west highway both providing great access to the town.

The town also has a very rich history that is primarily known for logging and salt industries that led to it's settlement and early success. By 1885 there were forty sawmills operating and by the end of the century the population reached 14,260. Manistee claimed to have more millionaires per capita than any other city in the United States. Manistee also has a historic downtown with many victorian architecture style buildings that are original from that era. The entire Downtown District is listed on the National Register of Historic Places.

OUR VISION FOR THE RIVER STREET CORRIDOR:

RIVER STREET CORRIDOR IMPROVEMENTS

PARK RE-DESIGN & IMPROVEMENTS



RIVERWALK CONNECTOR IMPROVEMENTS

***REFER TO PAGES 59-61 FOR RECOMMENDED PROJECT IMPLEMENTATION PHASING (NEAR, MID, AND LONG TERM) WITH ASSOCIATED COSTS.**

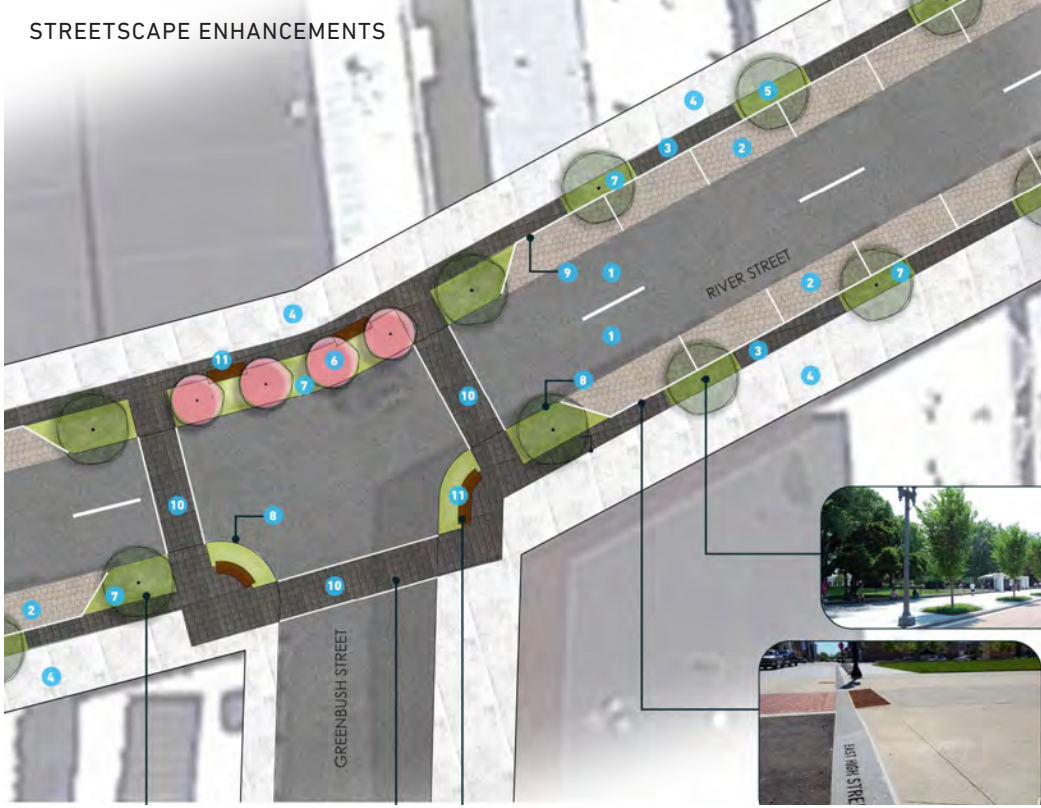
Between the numerous prized natural features, abundant local recreation, and rich history, this city has a strong draw for tourists, residents, and business owners alike. There is a great foundation to build off of with a city center built around the natural features of lakes and the river which draw people to the area, amenities that many cities don't have. Having said all of this, there is an opportunity for improvement to the downtown area. The main east-west street, River Street, could improve upon its identity, doesn't function to it's potential, and could be better connected to the surrounding areas.

The City and Downtown Development Authority have recognized this deficiency and partnered with planning/ design (MKSK) and engineering consultants (Fleis & VandenBrink) to guide the visioning and design of future improvements to the River Street Corridor in downtown Manistee. Promoting a more inviting and pedestrian-friendly experience for all users, the efforts and results of this initial design work will serve as a guide for future near and long-term improvements. This design playbook book is a cumulative effort that spans over six months with three separate public engagement sessions. Project goals and emerging themes began to present themselves at these sessions through public feedback from online surveys, visual preference surveys, design your own street exercises, and by identifying opportunity and conflict areas throughout The Corridor. A Traffic Study by the engineering firm also aided in providing clarity for the redesign. By incorporating all of the feedback from the public, the traffic study, and the consultants expertise, a vision began to form.

This book not only provides design and planning recommendations but also walks through the entire project process starting with existing conditions and site analysis, recommendations and implementation strategies, and cost estimating that led to preferred recommendations for The Corridor.

RIVER STREET CONNECTORS

STREETSCAPE ENHANCEMENTS



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RIVERWALK POCKET PARK

01 INTRODUCTION

02

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PURPOSE & INTENT

Manistee is a town that was established on the Manistee River, between Lake Michigan and Manistee Lake. Settlement along water bodies was common due to the proximity of fishing for food and the ease of shipping goods to and from the town, both played a roll in the early development of Manistee. As time progressed and heavy industry became a staple in the area, the shipment of large quantities of raw materials began to dominate the region. Today, large freighters still pass through the town moving between Manistee Lake, Manistee River, to Lake Michigan and ultimately other port stops along the Great Lakes. From early settlement to the industrial revolution to today, the town has seen a lot of change and there is a need to make the River Street Corridor more responsive to what a thriving, riverfront main street in the heart of a downtown should resemble.

Water is a natural feature that people are always drawn to. If it's not naturally in a city setting, designers and planners love to manufacture it to help draw people in to public spaces. Not only does Manistee have the luxury of having a singular natural water feature, (Manistee River) Manistee Lake and Lake Michigan to serve as the bookends to this town, offering an abundant amount of property that abuts these natural features for people to interact with. In addition to the Manistee River, there is excellent access to the Manistee Riverwalk, which parallels the river throughout town. Couple these natural features with the rich victorian architecture history that is evident up and down the River Street Corridor, this town has an excellent framework to build upon.

One of the sentiments we've continuously heard throughout the three engagement sessions is "nothing is intentional" and "none of the streetscape elements are working with one another." Our goal as consultants is to provide a comprehensive, all encompassing playbook that provides a clear direction and can be used as a guideline for the future redevelopment of River Street. It has a clear design style, has program elements relating to one another, creates an identity to an already great setting that lacks continuity and connectivity to its surroundings. It is this purpose and intent, along with working alongside the DDA and the public that has lead to forming the goals and recommendations for the project on the following pages.

GOALS & OBJECTIVES

1 | CONNECT - Provide & Improve Access Between River Street / Downtown and Manistee River

- Develop comprehensive signage and wayfinding system
- Simplify intersection of River, Water and Pine streets Promote improved connections between River Street and and Riverfront through "Connectors" placed throughout the street corridors

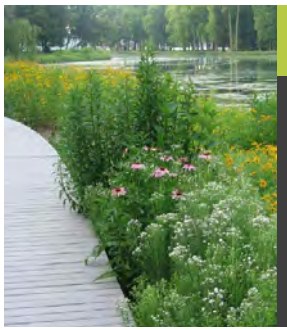
2 | STAY - Provide Areas & Spaces for People to Linger Downtown (Extend Stay)

- Create a welcoming public realm with landscaping and amenities along the corridor & new public spaces that support adjacent land uses
- Be welcoming to all families and individuals
- Improve opportunities for people to linger along the Riverwalk
- Promote improvements to activate buildings along the Riverwalk through public art, improved seating areas, and connectivity to public spaces
- Enhance existing public spaces with desired program elements: seasonal ice rink, fire pit, splash pad and shuffleboard

3 | GREEN - Provide a Sustainable, Green Street Corridor and Riverfront

- Increase tree canopy, where appropriate, to soften the hardscape feel of The Corridor, provide shade, and to

6 GOALS & OBJECTIVES



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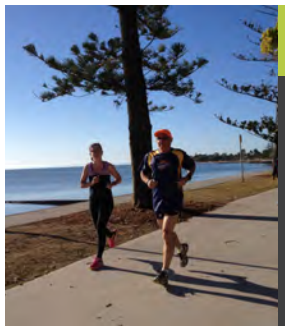
GREEN PROVIDE A GREEN STREET CORRIDOR AND RIVERFRONT



1

CONNECT PROVIDE + IMPROVE ACCESS BETWEEN RIVER STREET, DOWNTOWN, AND MANISTEE RIVER

4

ACCESS IMPROVE MOBILITY FOR ALL MODES OF TRANSPORTATION

2

STAY PROVIDE AREAS + SPACES FOR PEOPLE TO LINGER DOWNTOWN (EXTEND STAY)

5

SMART GROWTH GUIDE GROWTH TO SUPPORT LIVABILITY

6

IMPROVE EXISTING INFRASTRUCTURE AND RECOMMEND UTILITY UPGRADES

provide a traffic calming effect

- Improve Corridor green stormwater management strategies – incorporate low maintenance planters that can capture stormwater runoff
- Incorporate permeable paving to promote groundwater infiltration and reduce stormwater runoff

4 | ACCESS - Improve Mobility for All Modes of Transportation

- Connecting The Corridor with safe and accessible facilities for vehicles, pedestrians, and cyclists.
- Provide a curbless solution to The Corridor that eases access for all and promotes a more pedestrian friendly street for seasonal events
- Provide an elevator option to address steep grade changes between surface lot parking, River Street, and the Riverwalk
- Improve overall accessibility for all users and abilities

5 | SMART GROWTH - Guide Growth to Support Livability

- Corridor improvements should enhance the architectural character and history of the River Street Corridor
- Activating The Corridor through infill within under utilized spaces.

6 | IMPROVE - Recommend Utility Upgrades on Existing Infrastructure

- Increase ease of access to utilities and recommend upgrades
- Provide snowmelt upgrades to sidewalk to promote pedestrian access during winter months and help alleviate sidewalk snow maintenance

KEY RECOMMENDATIONS

This playbook identifies and prioritizes specific public investments that are intended to provide a catalyst for improved connectivity and public space throughout the River Street Corridor, a challenge not only due to steep grade change but also vehicular circulation constraints (deliveries on River Street),

Throughout the River Street Corridor (Spruce St. - Jones St.), focus areas for improvement have been identified, such as creating connectors to the Riverwalk from River Street, signage and wayfinding strategies, intersection enhancements, open space improvements, and activation zones. The Marina Park at the west end of the focus area is a prime example of an improvement area.

Recommendations in this playbook also highlight a key goal and that's providing access to River Street and the Riverwalk from surface lot parking further south - creating a corridor that's accessible for everyone. This is the Main Connector feature that connects people from a surface lot to a pocket park at the river through a series of elevators; a process that was previously not possible to all before the redesign due to the availability of parking on River Street and the steep grade change, proving to be too challenging for many seniors or handicapped individuals. The Marina Park improvement and Main Connector feature should serve as the foundation of improvements to spur further redevelopment within The Corridor. The proposed improvements should help enhance the major events that the River Street Corridor currently hosts as well as help foster new successful events.

01

IMPROVE PEDESTRIAN CIRCULATION & DEVELOP CORRIDOR FOR A VARIETY OF USES AND PROGRAMS

02

CREATE ENHANCED INTERSECTION TREATMENTS THAT HELP CALM TRAFFIC AND INCREASE PEDESTRIAN AMENITY AREAS

03

IMPROVE MULTIPLE CONNECTORS THAT ARE CONSISTENT THROUGHOUT THE RIVER STREET CORRIDOR THAT BETTER HELP IDENTIFY AND CONNECT RIVER STREET TO THE RIVER WALK

04

PROMOTE CONNECTIVITY FROM RIVER STREET TO ADJACENT AREAS THROUGH UNIFORM WAYFINDING ENHANCEMENTS

05

IMPROVE EXISTING RIVER FRONT PARK TO BE PROGRAMMED WITH A MIX OF BOTH PERMANENT ELEMENTS TO DRAW PEOPLE IN AND USE & FLEXIBLE SPACES FOR SEASONAL EVENTS

06

CREATE A STREETSCAPE THAT IS FLEXIBLE, INTERACTIVE, AND WILL SPUR URBAN INFILL AND ECONOMIC DEVELOPMENT

***REFER TO PAGES 59-61 FOR RECOMMENDED PROJECT IMPLEMENTATION PHASING (NEAR, MID AND LONG TERM) WITH ASSOCIATED COSTS.**

01

02 EXISTING CONDITIONS & SITE ANALYSIS

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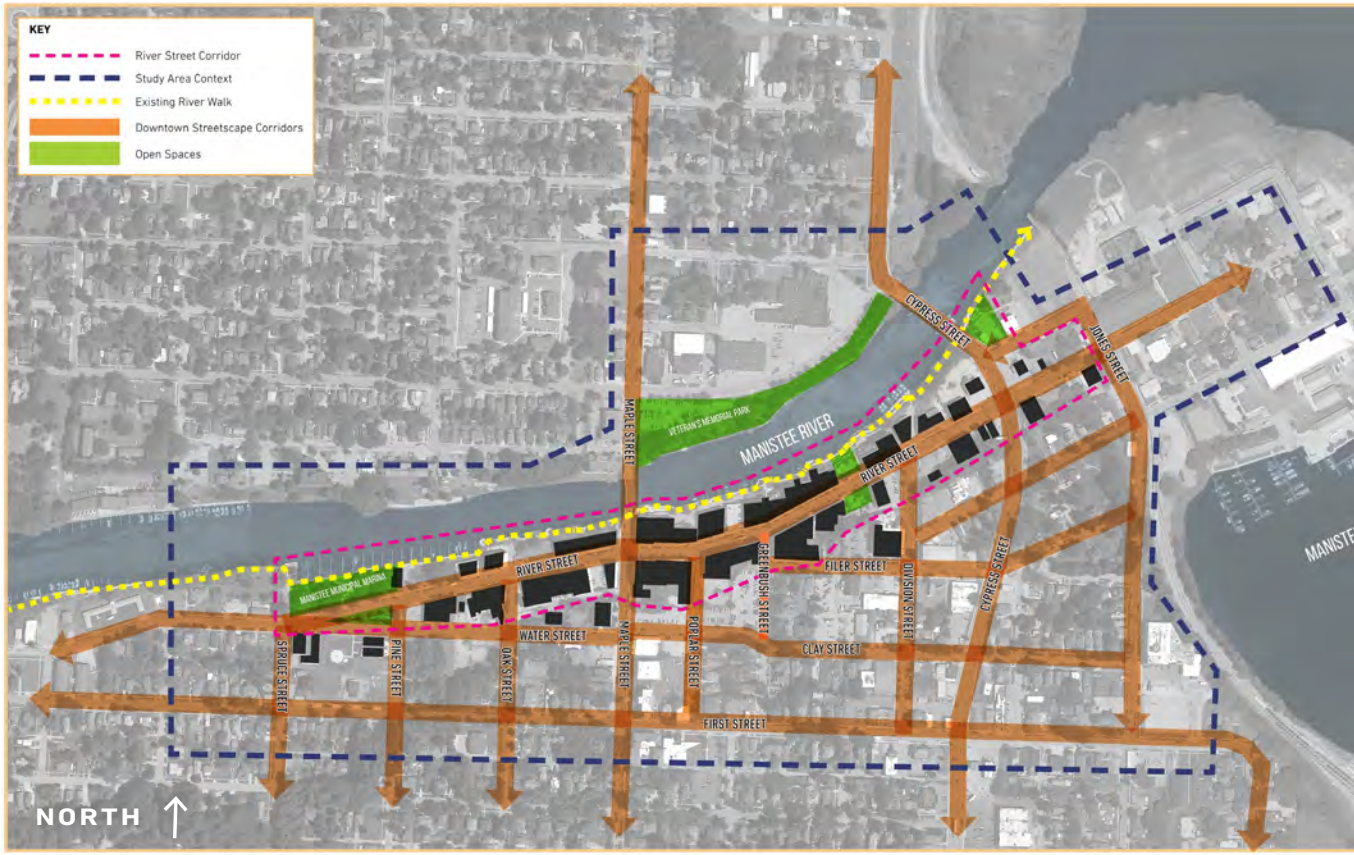
INTRODUCTION

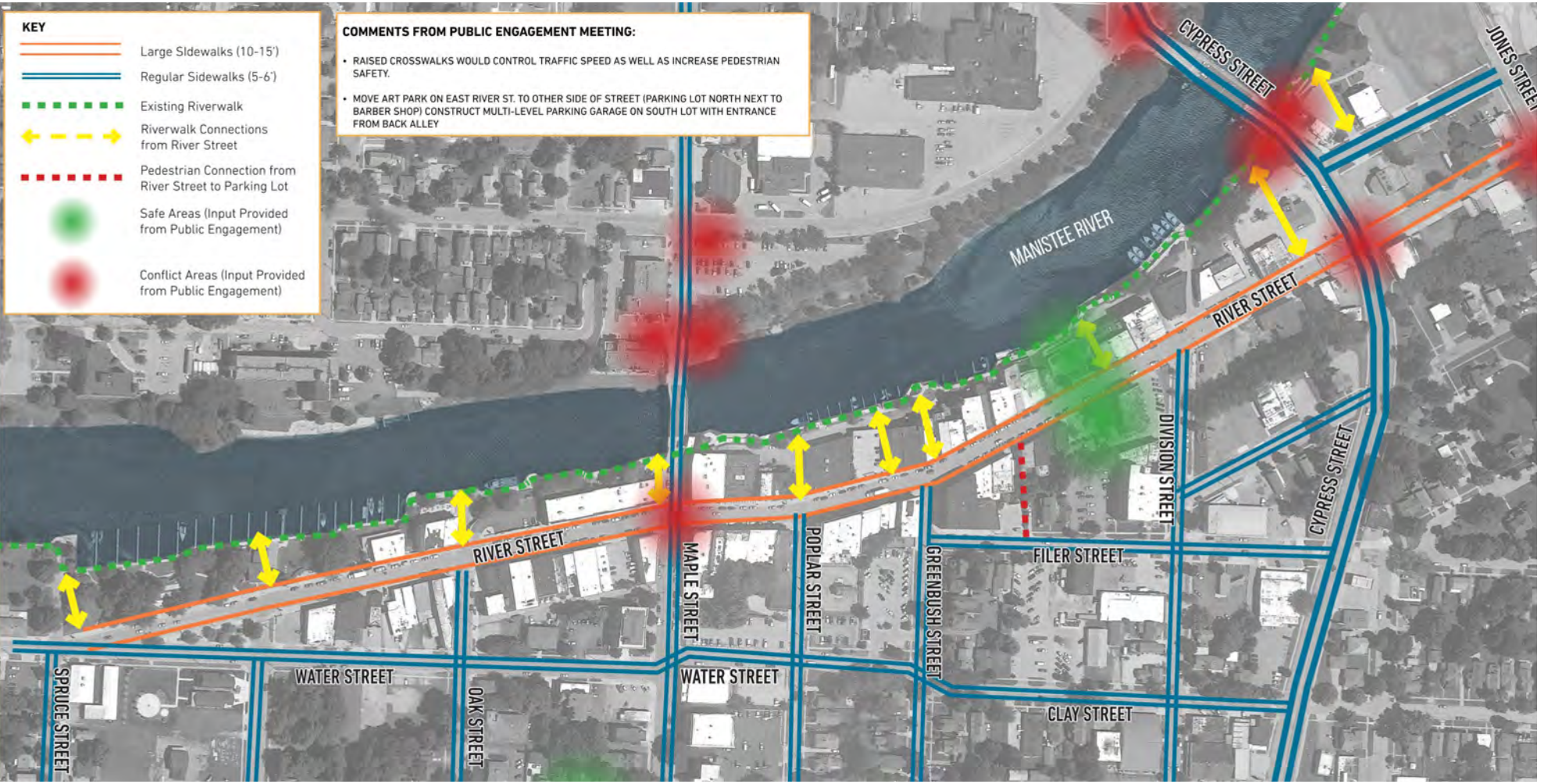
The River Street Corridor project study area is located on River Street between Spruce Street and Jones Street in Manistee, Michigan. The project study area focuses on the River Street right-of-way from building facade to building facade on River Street. However, it also examines how adjacent areas to The Corridor can be improved by taking a more holistic, all encompassing design approach. Manistee has a very rich history that is primarily known for logging and salt industries that lead to it's settlement and early success. Today, tourists flock from the Midwest to the town during the warmer months to take advantage of the public beaches on Lake Michigan, the shopping and dining along River Street, and the abundant recreation (fishing, golf, hiking, biking, etc.) in the area.

The Corridor is primarily composed of retail shops and restaurants in the study area. It is also home to a hotel, Manistee Inn & Marina, Manistee Municipal Marina with an adjacent park, the Manistee River Walk, and the iconic Vogue Theatre. The Corridor hosts multiple events per year with the seasonal Christmas Tree lighting and placement as one of the more popular events for residents and visitors. Future improvements to the River Street Corridor should support the day to day activities of local residents and enhance the special events that are beloved by all.



CIRCULATION & ACCESS - PEDESTRIAN

River Street is the primary east-west road that weaves through town connecting people from the north-south US-31 Highway to the 1st Street Beach, and all of the neighborhoods in between. From Division Street to Jones Street, it is two lane, two-way travel road with on street parking on each side of the street. From Division Street to Spruce Street, it is a two lane, one-way travel road with on street parking on both sides of the street. Because of River Street's proximity between the highway and the beach, it receives a heavy amount of traffic, especially in the summer months, that can lead to both vehicular and pedestrian circulation conflicts. One of the common themes that the planning team heard consistently during the engagement process was the need for traffic calming, as The Corridor has an unsafe feel to pedestrians due to traffic speed and lack of safe pedestrian crossings. Below illustrates the existing pedestrian circulation routes with conflict areas and safe areas input from the public.



CIRCULATION & ACCESS - PEDESTRIAN

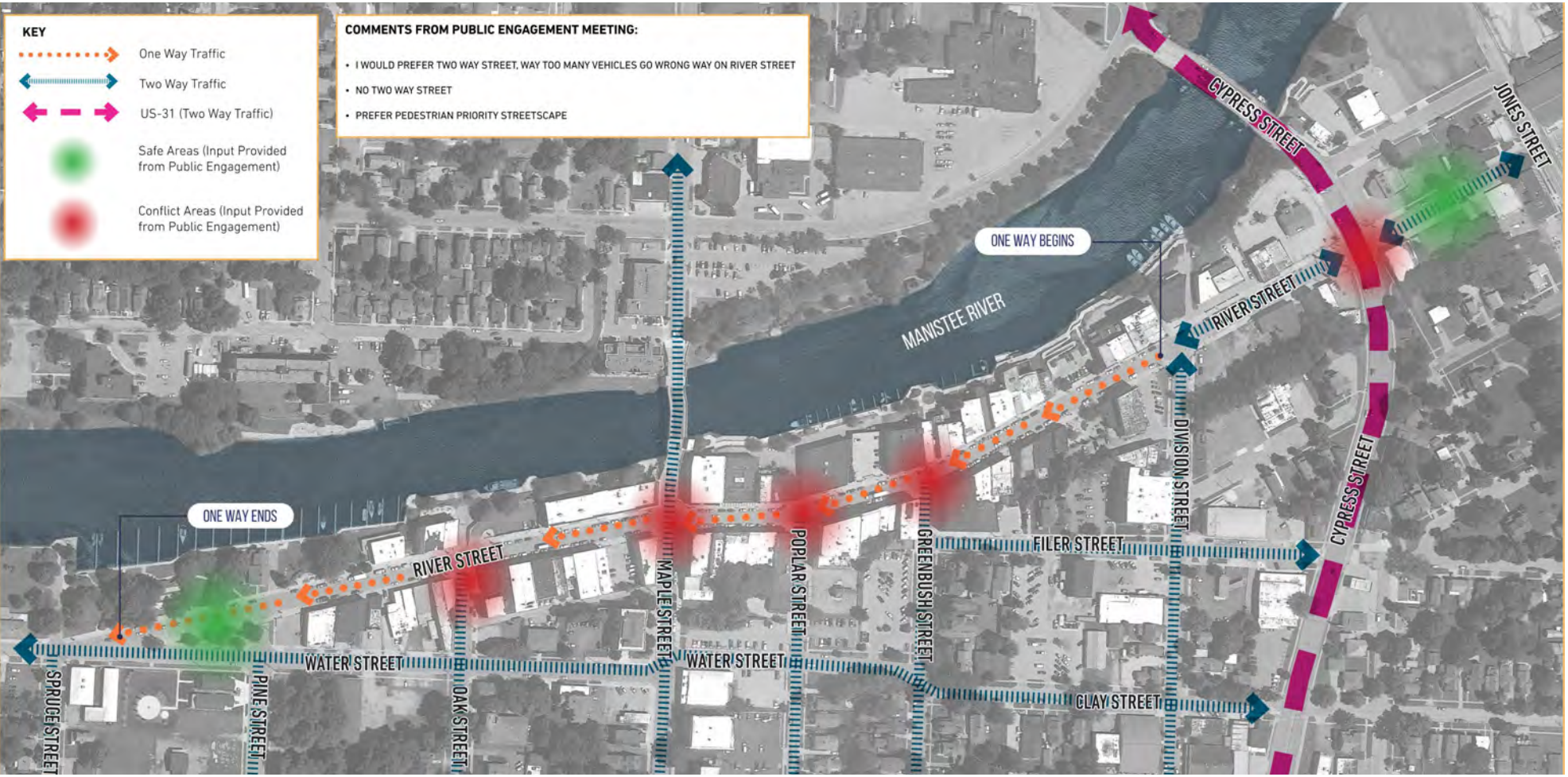
"I WANT TO SEE THE CORRIDOR BE INVITING, COMFORTABLE WALKING EXPERIENCE, FRIENDLIER.."

A walk-shed analysis was studied to determine how quickly and how much distance would be covered by an individual on foot through the project study area. This study, along with the inventory of existing pedestrian routes, will help provide a framework for enhancing redesign of pedestrian circulation and connectivity to The Corridor and adjacent areas outside of The Corridor.

CIRCULATION & ACCESS - VEHICULAR

"THERE IS VEHICULAR CONFUSION DAILY, I WOULD LIKE A SOLUTION THAT IS CLEAR."

Below is a map illustrating existing vehicular circulation with safe areas and conflict areas noted by the public. As mentioned previously, speed is one of the main issues with vehicular circulation; people do not feel safe driving or walking in The Corridor with the speed of vehicular traffic. Confusion was a term that kept recurring as well, with the public asking for an action plan that provided clarity for vehicular circulation in the future improvements to River Street. Also noted below, most intersections with River Street and north / south streets that tie into River Street were marked as conflict areas, providing a need for action and redesign in these locations. Regarding direction of travel, we understand that there is the potential to change the street flow from one-way to two-way travel. Based on our initial assessment of current and future traffic flow, the change from one-way to two-way is feasible. However, after two engagement sessions and an online survey, the overwhelming majority expressed their opinion to keep the street in its current condition as one-way. 90.3% of participants are in favor of keeping it a one-way street and 9.7% wanted the road changed to a two-way street throughout the project limits.



SIGNAGE & WAYFINDING

There is no shortage of signage throughout The Corridor from city branding, to vehicular signage, pedestrian Riverwalk signage, as well as gateway signage noting entrance to River Street or to the Riverwalk. The issue is inconsistencies, they're difficult to read and, often times, improperly located.

When visitors enter River Street from US-31, they are welcomed with a gateway entrance sign spanning between two stone piers over the entire street, announcing that you have arrived to downtown Manistee. However, the sign is outdated and in need of an upgrade. The letters are thin, with no backing provided on the sign for contrast to help with legibility, which makes them extremely hard to read depending on the time of day. This is one example where the main gateway does speak to other signage on site (gateways to the riverwalk) but there is no doubt the function and aesthetics could be improved.

There is a need for a family of similar signage throughout The Corridor. Everything on site should have the same type font, graphics, and colors for continuity. Vehicular signage, pedestrian signage, parking, wayfinding maps should all be consistent and speaking with one another for clear direction that is picked up visually by the users of The Corridor.

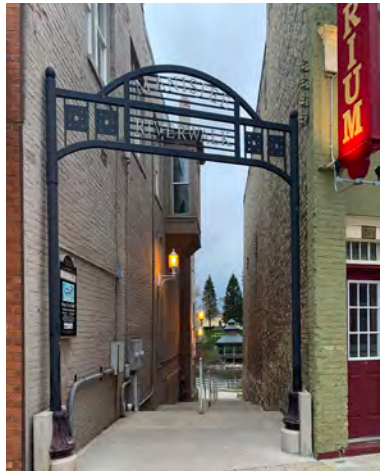
SUPPORTING QUOTES FROM ENGAGEMENT SESSION 1:

"THE RIVERWALK IS MANISTEE'S #1 DESTINATION BUT PEOPLE ASK HOW TO GET THERE. WAYFINDING IS AN ISSUE."

"NOTHING WITHIN THE DOWNTOWN AREA SEEMS INTENTIONAL: LIGHTING, WAYFINDING, GATHERING SPACES, THERE'S INCONSISTENCIES WITH EVERYTHING."

Existing Corridor Signage

Existing Corridor Signage



PARKING ANALYSIS

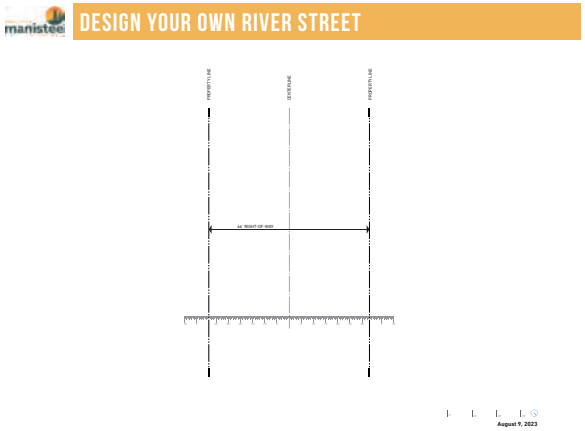
"ACCESSIBLE PARKING SPACES ARE AN ISSUE, ESPECIALLY FOR THE ELDERS."

One of the challenges facing this redesign is parking. Quantity is not the issue, rather parking distribution and location are the challenges. There is on-street parking on both sides of the street throughout The Corridor. The public has expressed that the number of spaces can be limited and tough to find a spot in peak times downtown, and they would desire to retain all on street parking with future improvements on the street. After putting together a map showing all the parking in and around The Corridor, it was determined that there are a number of underutilized surface lots south of River Street that would be a very short walking distance to River Street. A focus on helping to strengthen these connections of surface lots to River Street through wayfinding will be a point of emphasis in the proposed streetscape improvement recommendations.

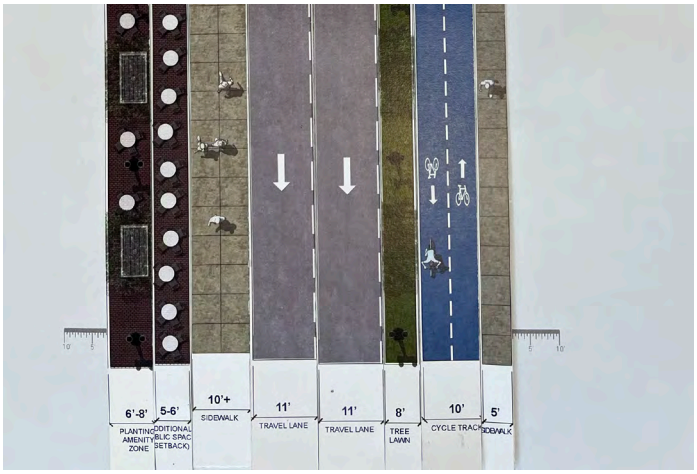
ENGAGEMENT ACTIVITY: DESIGN YOUR OWN STREETSCAPE

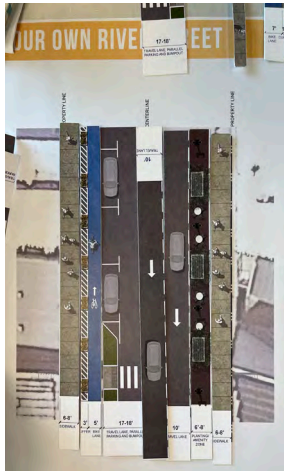
The River Street right-of-way (ROW) is 66' throughout the project boundary. One exercise we encouraged the public to participate in during the engagement process was a design your own streetscape plan. There are numerous cutout scaled elements (road travel lanes, parking, sidewalk, amenity zones, plant buffers, bike lanes, etc.) that allow people to design their ideal River Street, selecting and testing the program elements that fit within the 66' ROW.

This exercise allows participants to prioritize their ideal vision for River Street. It allowed them to better understand the limitations of space inside the ROW. This shows how challenging a re-design can be by having to sacrifice some program elements in order to fit and allows their true needs and wants to become a little more clear. This feedback will play a big role in The Corridor redesign.



Design your own Streetscape Template





Design your own Streetscape Exercise

SUPPORTING QUOTES FROM ENGAGEMENT SESSION 1:

"I WOULD LIKE TO SEE SIDEWALKS THE SAME WIDTH OR LARGER WITH VEHICULAR TRAVEL AND PARKING RECONFIGURED."

"THERE'S A HARD STREETSCAPE FEEL, WOULD LIKE TO SEE IT SOFTENED WITH PLANTINGS."

"I WANT TO SEE MORE OUTDOOR DINING AND GATHERING SPACES."

ENGAGEMENT ACTIVITY: VISUAL PREFERENCE SURVEY

Offering a visual preference survey was an another effective tool used during the engagement process. Multiple boards of various program elements were provided (lighting, seating, planting, art work, streetscape design, waterfront design, etc.) and the public was asked to place a sticker on their preferred look and feel. This allowed us to better gauge what style or theme the public was looking for in the future redesign. Below are the top 12 images the public voted on. A family of program elements and design styles resulted from this exercise, helping shape a narrative and design style to be repeated throughout The Corridor. These types of elements would be viewed as near-term projects and are near-term improvements to the study area that would benefit the community while fund-raising for larger corridor improvements is in progress.

VISUAL PREFERENCE SURVEY RESPONSE:

THE CITY OF manistee MICHIGAN

FUTURE RIVER STREET CORRIDOR PROGRAM ELEMENTS: TOP 12 RESPONSES

WE ASKED THE COMMUNITY WHAT TYPES OF SPACES AND PROGRAM ELEMENTS THEY WOULD LIKE TO SEE INCOPORATED IN THE FUTURE RIVER STREET CORRIDOR THROUGH A VISUAL PREFERENCE SURVEY AT ENGAGEMENT SESSION 1. THE RESULTS BELOW HELP GIVE US AN IDEA OF WHAT THE COMMUNITY VISUALIZES THE CORRIDOR BECOMING AND WILL HELP GUIDE THE CONCEPTUAL DESIGN OF SPACES THROUGHOUT THE CORRIDOR.

PEDESTRIAN LIGHTING

CATENARY LIGHTING

RAW MATERIAL BENCHES

MOVEABLE SEATING

GREEN INFRASTRUCTURE

TRADITIONAL STREETSCAPE

MURALS

FURNISHINGS

DECIDUOUS CANOPY SHADE TREES

BUFFER / RIPARIAN PLANTINGS

RIVERFRONT PLACEMAKING

BOARDWALK ENHANCEMENTS

ONLINE SURVEY

An online survey with a QR code was another strategy used to gather feedback and preferences. This survey provided feedback from over 300 residents on a number of topics related to the study area. There were multiple choice questions, questions that had a scale from most important to least important, and open ended questions, which ultimately proved to be the most valuable. People felt comfortable expressing their strong opinions in this format, that we otherwise wouldn't have received from the more reserved, in person participants at engagement session 1 in May 2023. After synthesizing all of the information from the survey, a pattern emerged, which informed the overall project goals and emerging themes, serving as the foundation for future corridor improvements.

SURVEY SUMMARY

DESCRIBING MANISTEE AND THE RIVER...

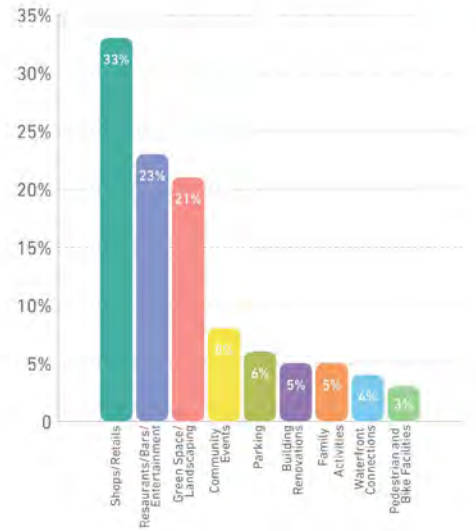
What separates Manistee from all other Michigan towns? What makes Manistee unique?

In just a few words, describe your "Perfect Day" on River Street...

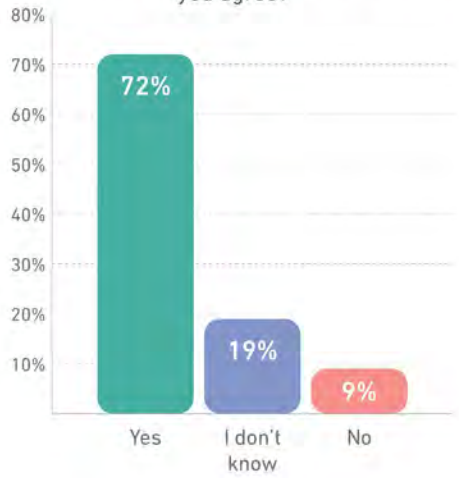
What are your favorite things about the River Street corridor?

DESCRIBING WHAT THE GOALS FOR RIVER STREET CORRIDOR SHOULD BE...

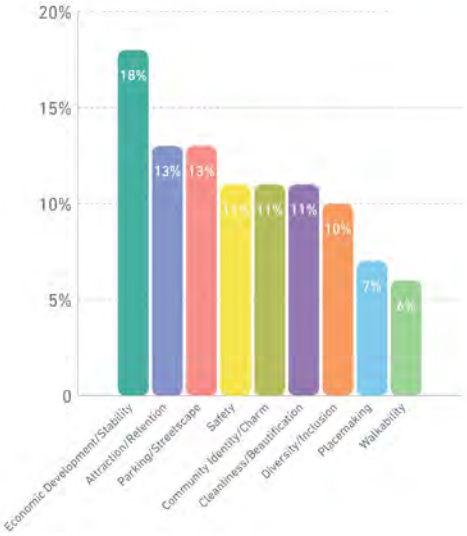
What do you think is currently missing from the River Street corridor?



Previous planning efforts identified that beautification, connectivity, placemaking, and safety are the four most critical goals to the redevelopment of River Street. Do you agree?



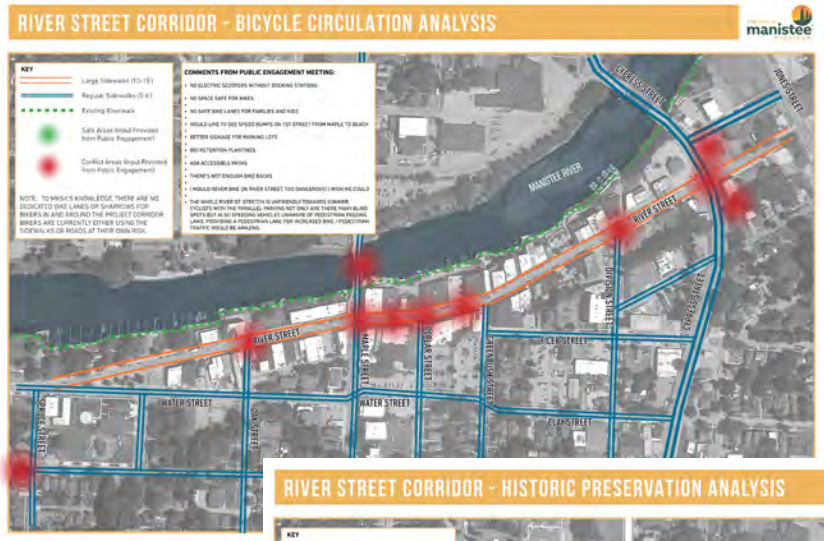
Are there any additional goals that you have for this project?

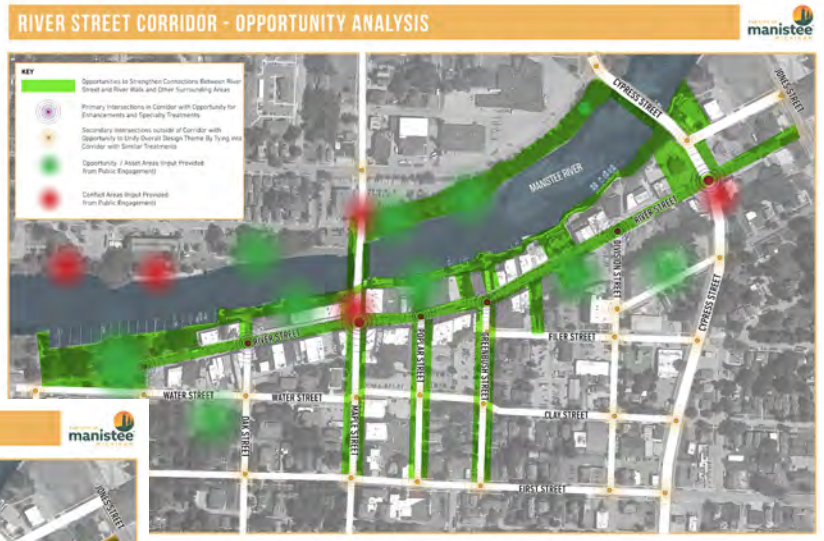


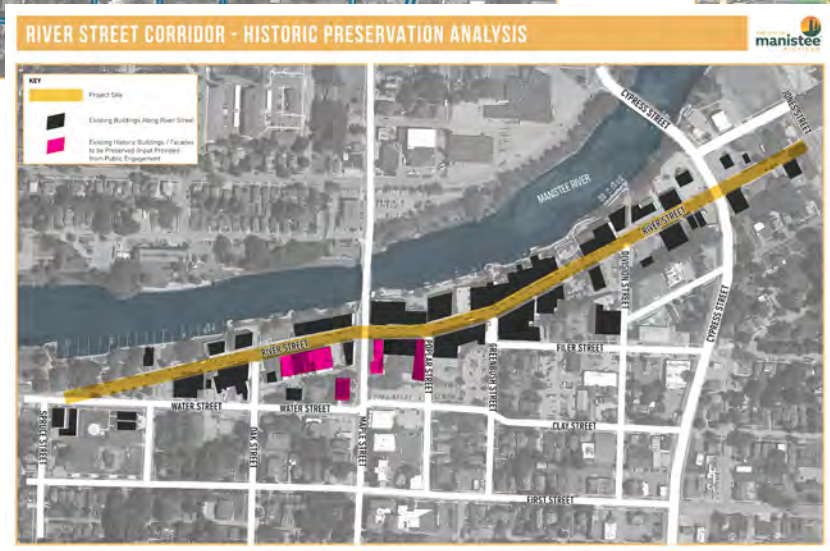
MISCELLANEOUS INVENTORY & ANALYSIS

There were a few other studies performed in the inventory and analysis phase that play into the overall puzzle: bicycle circulation, historic building preservation, and activation opportunities in the downtown street corridors on River Street and the adjacent streets connecting with River Street. Each of these separate study areas were brought up by the public as key elements in the future redesign and warranted further study by the design consultants.

"I WANT TO SEE THE STREET BLOCKED OFF FOR EVENTS. THERE IS A DIFFERENT FEEL TO THE CORRIDOR WALKING IN THE MIDDLE OF THE STREET AND LOOKING UP AT THE BUSINESSES."







"I WOULD LIKE TO SEE A BIKE ROUTE PLAN, THERE'S CURRENTLY NONE AND IT'S ALMOST IMPOSSIBLE TO RIDE A BIKE ON RIVER STREET."

"ARCHITECTURE IS A MAJOR POSITIVE FOR RIVER STREET, BUT THERE ARE PROBLEMS WITH IT RIGHT NOW. NOTHING DRAWS YOUR EYES UP, NO LIGHTING ON ARCHITECTURE AT NIGHT, SO IT GETS LOST, AND RIVER STREET CURVING CAUSES YOU TO LOSE SIGHT ON THE BUILDINGS."

01

02

03 RECOMMENDATIONS & IMPLEMENTATION STRATEGIES

04

05

INTRODUCTION

Based on interactive engagement exercises, feedback from the public, working with the DDA, and with the City, this playbook identifies and prioritizes key focus areas within the River Street Corridor to help guide the City of Manistee and the DDA's planning and implementation of future improvement projects. The recommendations within this playbook are intended to provide uniformity and consistency throughout The Corridor, including areas for placemaking and activation, as well as overall aesthetic and safety improvements.

Throughout the planning and design process for the this plan, the project team has stressed that assembling a playbook with design recommendations and pricing is critical in establishing momentum and support for future improvements. Discussions during the early stages of the project identified multiple strategic focus areas within The Corridor, establishing a vision touching on a variety of conditions along River Street. The graphic on the right identifies the overall list of key recommendations throughout The Corridor. This playbook provides a menu of improvement opportunities, both near and long-term. The City of Manistee and the DDA shall determine improvement priorities and final implementation sequence for each of the key recommendations provided.

PROJECT VISION STATEMENT

The River Street Corridor and Manistee River Riverfront are historic, energetic, and resilient urban assets and destinations located in the heart of Manistee, where smart growth supports an environment for everyone to succeed.

FOCUS AREAS

The Manistee River Street Corridor has been broken down into three main areas for redevelopment:

1.0 | Manistee Marina Park

2.0 | Riverwalk Connectors

3.0 | Streetscape Enhancements

These focus areas were selected through a combination of goals and objectives that began to form over three public engagement sessions paired with inventory and analysis on The Corridor. After the consultants analyzed that information, it became clear that these three main areas should be the focus for the future redevelopment of The Corridor and conceptual diagrams and designs began to take focus among the consultant design teams.

Goals and Objectives that Helped these specific areas come into focus:

1 | CONNECT - Provide & Improve Access Between River Street / Downtown and Manistee River

- Develop comprehensive signage and wayfinding system
- Simplify intersection of River, Water and Pine streets
- Promote improved connections between River Street and and the riverfront through "Connectors" placed throughout the street corridors

2 | STAY - Provide Areas & Spaces for People to Linger Downtown (Extend Stay)

- Create a welcoming public realm with landscaping and amenities along The Corridor & new public spaces that support adjacent land uses
- Be welcoming to all families and individuals
- Improve opportunities for people to linger along Riverwalk
- Promote improvements to activate buildings along Riverwalk through public art, improved seating areas, and connectivity to public spaces
- Enhance existing public spaces with desired program elements: seasonal ice rink, fire pit, splash pad and shuffleboard

3 | GREEN - Provide a Sustainable, Green Street Corridor and Riverfront

- Increase tree canopy, where appropriate, to soften the hardscape feel of The Corridor, provide shade, and to provide a traffic calming effect
- Improve corridor green stormwater management strategies – incorporate low maintenance planters that can capture stormwater runoff
- Incorporate permeable paving to promote groundwater infiltration and reduce stormwater runoff

FOCUS AREAS

4 | ACCESS - Improve Mobility for All Modes of Transportation

- Connecting The Corridor with safe and accessible facilities for vehicles, pedestrians, and cyclists.
- Provide a curbless solution to The Corridor that eases access for all and promotes a more pedestrian friendly street for seasonal events
- Provide an elevator option to address steep grade changes between surface lot parking, River Street, and the Riverwalk
- Improve overall accessibility for all users and abilities

5 | SMART GROWTH - Guide Growth to Support Livability

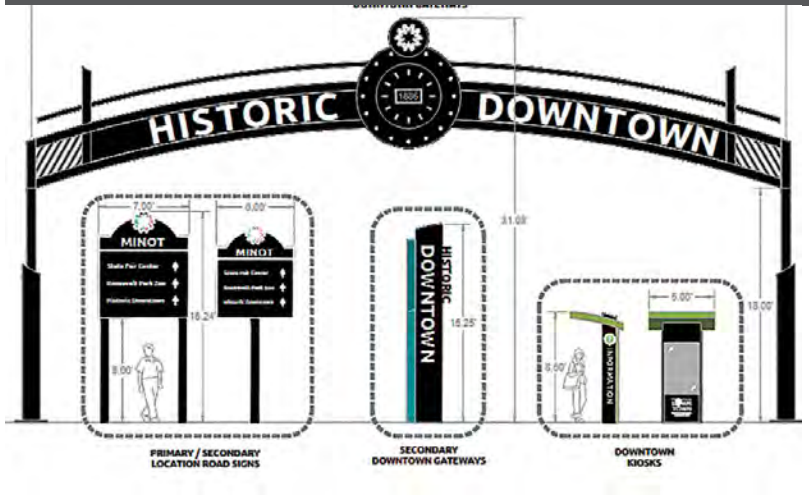
- Corridor improvements should enhance the architectural character and history of the River Street Corridor
- Activating The Corridor through infill within underutilized spaces.

6 | IMPROVE - Existing Infrastructure and Recommend Utility Upgrades

- Increase ease of access to utilities and recommend upgrades
- Provide snowmelt upgrades to sidewalk to promote pedestrian access during winter months and help alleviate sidewalk snow maintenance

SIGNAGE & WAYFINDING STRATEGIES

OVERALL WAYFINDING/SIGNAGE STRATEGIES AND RECOMMENDATIONS



A Family of Signage Example

A Family of Signage Example

The existing signage and wayfinding system throughout the River Street Corridor is a collection of various styles and approaches that have accumulated throughout the decades. This has resulted in a family of signage that is not uniform in communication and style. There is too much variety and inconsistency between various signs. It is recommended that a more cohesive family of signage be developed throughout the River Street Corridor and the Riverwalk that encompasses all scales: gateway, vehicular, directional, pedestrian, connectors, interpretive / educational, and informational kiosks. These should all have a family of similar font style, same color palette, same color and finish on the post holding up the sign. This continuity will help the signs work together and reduce confusion for the users of the site. Refer to the following page for an example of how the signage would lead a user of the site from entrance to destination in The Corridor.

Kiosk with Map Signage

Gateway Signage

OVERALL WAYFINDING SIGNAGE / STRATEGIES AND RECOMMENDATIONS

Gateway Signage

Wayfinding Signage

VISITOR JOURNEY EXAMPLE

1 → **2** → **3** → **4** → **5** → **6**

1 — **Gateway Sign Welcomes Visitor to Manistee at Intersection of US-31 and River Street**

***NOTE: There should be signage on streets north and south of River Street (Memorial Dr. and FIler St.) to redirect people back to River Street if they miss the turn off of US-31**

2 — **Visitor is directed to destinations (Marina Park, Observation Park) and surface lot parking south of River Street**

3 — **Surface Lots direct pedestrians to River Street**

4 — **Primary and Secondary Connectors direct pedestrians to the Riverwalk from River Street**

NOTE: it is recommended there are three kiosks located on the west, central, and east end of the corridor to show a map with where the user currently is in the full context of The Corridor.

5 — **Visitor is directed to Marina Park and Observation Park from River walk**

6 — **Visitor enters Marina Park - Observation Park and arrives at destination.**

FURNISHING & MATERIALS RECOMMENDATIONS

The street furnishing recommendations in the following sheets offer an opportunity for short term, more cost-effective upgrades to The Corridor compared to some of the larger recommendations in the play book should the client want focus on smaller, aesthetic enhancements first.

The Visual Preference survey conducted at Engagement Session 1 in May 2023 was a productive exercise. At this event, the consultant team was able to gauge style and appearance of furnishings the public preferred to see in The Corridor. The feedback provided by the public resulted in two key takeaways: 1. while furnishings and streetscape elements (benches, bicycle racks, lighting fixtures, waste receptacles, etc.) with a modern aesthetic were well liked, most people preferred an aesthetic that complemented the victorian architectural character of the buildings along River Street, and 2. there was a desire for a unified strategy for the streetscape corridors. As a result of this feedback, the final recommendation was to select a streetscape furnishings strategy that provided a clean and contemporary approach to a victorian influenced architectural style. This approach will provide a clean and fresh approach to The Corridor and provide a timeless family of furnishings and elements. These furnishings are recommended to be powdercoated with the same color and finish for continuity throughout The Corridor.

The lighting options below are alternate recommendations. The preferred lighting solution is to keep all pedestrian and street lighting fixtures throughout The Corridor but upgrade to LED.

PEDESTRIAN LIGHTING

Manufacturer: Ashbery
Product: Area Light

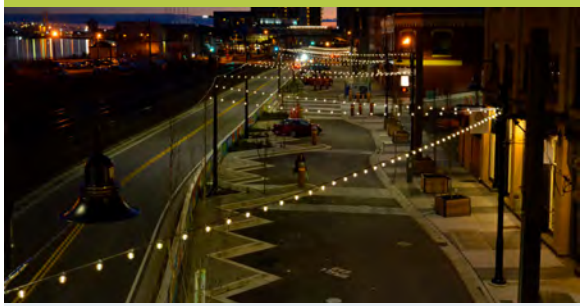
WALL MOUNTED - LIGHTING

Manufacturer: Ashbery
Product: Wall Mount Light

BOLLARD LIGHTING

Manufacturer: Ashbery
Product: Path Light

CATENARY OVERHEAD STRING LIGHTING



Manufacturer: Tivoli
Product: Adapt

FURNISHING & MATERIALS RECOMMENDATIONS

BIKE RACKS

Manufacturer: Landscape Forms
Product: Emerson

TRASH & LITTER RECEPTACLE

Manufacturer: Landscape Forms
Product: Scarborough Litter

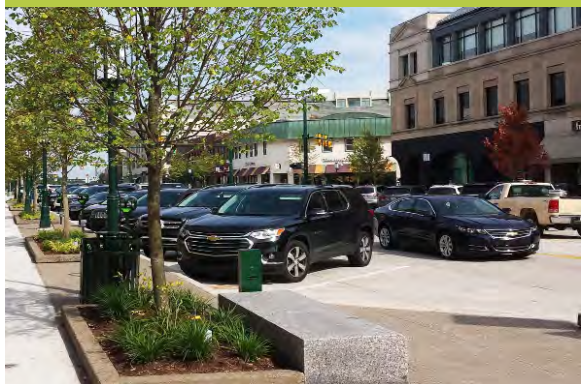
BENCHES

Manufacturer: Landscape Forms
Product: Scarborough Bench

AMENITY ZONE PAVERS

Manufacturer: Unilock
Product: Courtstone Cobbles

SEATING BUILT INTO PLANTER BEDS



PAVER STREETS

Manufacturer: Endicott
Product: Wire Cut, Vehicular Rated Paver

RECOMMENDATIONS FOR NEW OR RELOCATED PROGRAMMED EVENTS AND ACTIVATION

SEASONAL ICE RINK

Location: Marina Park
Timing: December - February

INTERACTIVE WATER FEATURE

Location: Marina Park
Timing: Spring, Summer, Fall

FOOD TRUCKS

Location: Marina Park
Timing: Spring, Summer, Fall

FIREPLACE FEATURE

Location: Marina Park adjacent to Seasonal Winter Activities, also potential for another location at enhanced intersections in the corridor.
Timing: Fall, Winter

NATURE PLAY

Location: Marina Park
Timing: Year Round

SPLASH PAD

Location: Marina Park
Timing: Spring, Summer, Fall

RECOMMENDATIONS FOR NEW OR RELOCATED PROGRAMMED EVENTS AND ACTIVATION

SLOPED LAWN FOR PERFORMANCE VIEWING

Location: Marina Park
Timing: Spring, Summer, Fall

FLUSH CURB STREETS

Location: Marina Park, River Street Corridor
Timing: Year Round

GREEN INFRASTRUCTURE PLANTER BEDS

Location: Marina Park, Entire Corridor
Timing: Year Round

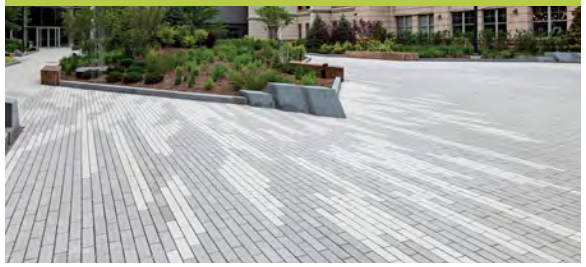
DECIDUOUS TREE PLANTINGS

Location: Marina Park, Entire Corridor
Timing: Year Round

GEOTHERMAL SNOWMELT SYSTEMS

Location: Marina Park, River Street Corridor
Timing: November - March

PAVER SIDEWALKS & STREETS



Location: Marina Park, Entire Corridor
Timing: Year Round

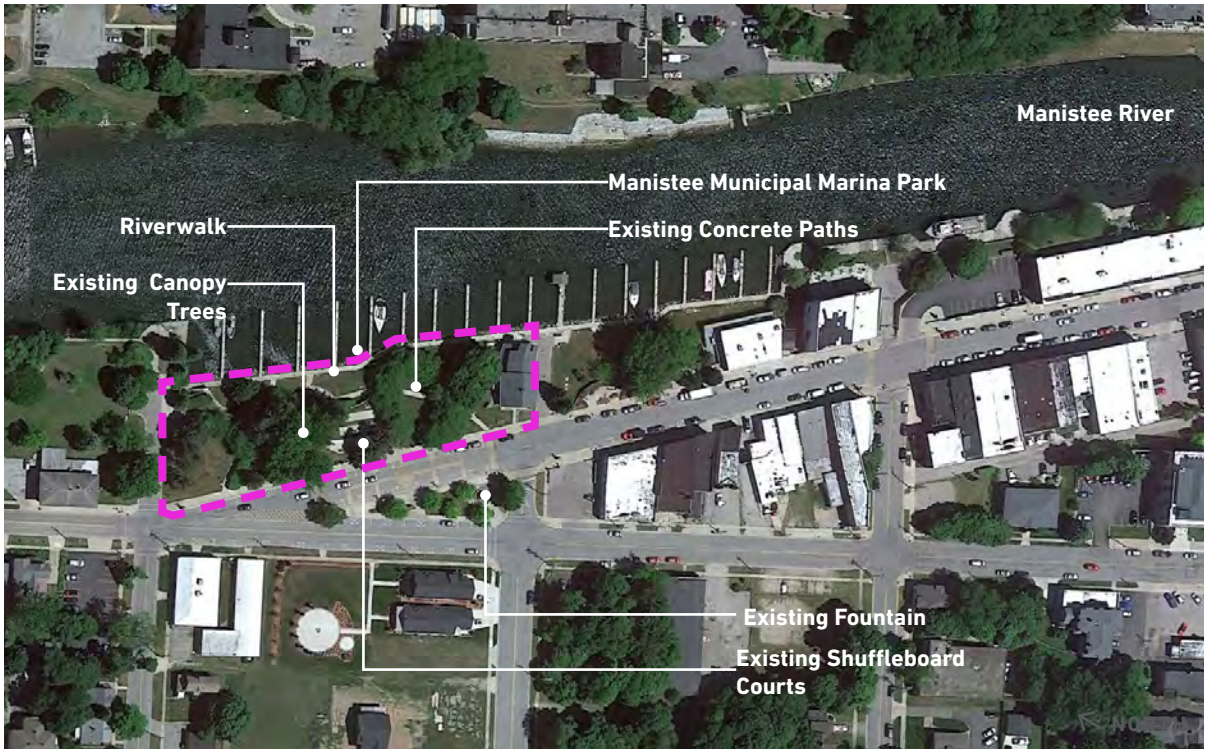
1.0 | RIVERFRONT PARK & PLAZA

EXISTING CONDITIONS

Manistee Marina Park is nestled in between River Street and the Manistee River, an ideal location that could generate a lot of activity due to the desirable location next to the Manistee River and the heart of downtown Manistee. The Park is currently programmed with concrete walking paths, bench seating, pedestrian lighting, shuffleboard courts, large deciduous canopy trees, a spacious, sloped lawn, and the Riverwalk bordering the north edge of the park. There are many areas of the park that are not as accessible as they should be. There are code issues with railings atop retaining walls and there are grade issues. There's an opportunity to use a portion of River Street to extend the park further south (and into town) that could offer more space for future programming and activation for daily use and special events.

Despite both of these pieces of land serving as parks with a fair amount of programming, they lack use and energy around them. There is a relatively steep grade change from River Street to the Riverwalk (~15-20') that perhaps aids in the lack of park use. It may be too difficult for passive recreation outside of sitting on a hill, which is why this park is a prime candidate for redevelopment with an opportunity to focus on better access, programming, and activation.

The consultant team and the client agreed that this would be an excellent spot for a redesign and could serve as a catalyst of future improvements of pocket parks, furnishings, and overall design style for The Corridor moving forward.



Existing Park

1.0 | RIVERFRONT PARK & PLAZA

ILLUSTRATIVE PLANS

The illustrative diagrams on this page depict alternative conceptual strategies to provide improved accessible circulation between the Manistee River and River Street. These initial plan diagrams were shared with the client and the public for input and feedback, providing the design team valuable information on preferences and direction moving forward.

Both options offer recommendations to close the segment of River Street to the west of Pine Street. This approach not only provides more space for the park but also simplifies the vehicular movements and eliminates an acute intersection between River Street and Water Street to reduce conflicts between vehicles and pedestrians.

Based on feedback provided by the public, Option 2 was preferred. This option includes: an open-air market pavilion structure, a paved plaza for flexible seasonal programming, relocates the existing fountain, reconfigures viewing areas for river activity, and improves Riverwalk features.

RIVER STREET CORRIDOR - WATERFRONT PARK REDESIGN

EXISTING SITE PHOTO

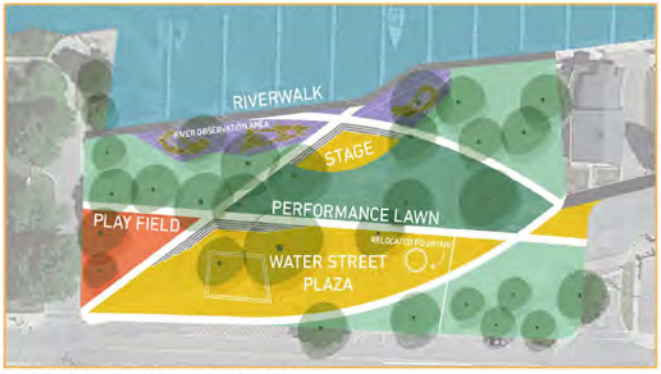
PROJECT GOALS & EMERGING THEMES

PROVIDE AREAS & SPACE FOR PEOPLE TO LINGER DOWNTOWN

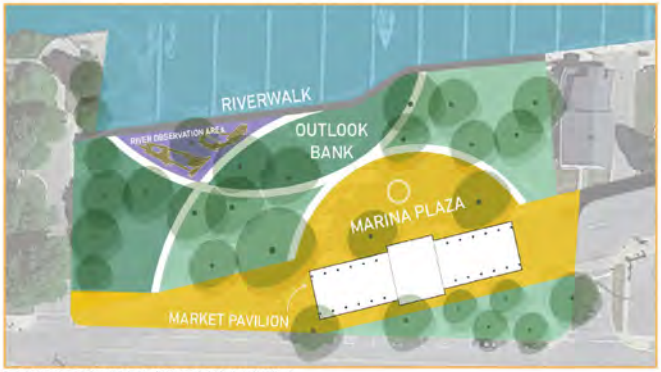
- CREATING A WELCOMING PUBLIC REALM WITH LANDSCAPING AND AMENITIES ALONG THE CORRIDOR & NEW PUBLIC SPACES THAT SUPPORT ADJACENT LAND USES.
- IMPROVE OPPORTUNITIES FOR PEOPLE TO LINGER ALONG RIVERWALK

PROVIDE & IMPROVE ACCESS BETWEEN RIVER STREET, DOWNTOWN, AND MANISTEE RIVER

- PROMOTE LARGER PARK OR PLAZA ADJACENT TO MUNICIPAL MARINA



ILLUSTRATIVE PARK REDESIGN OPTION 1



ILLUSTRATIVE PARK REDESIGN OPTION 2

BEST PRACTICE IMAGERY & DESIGN INSPIRATION

1.0 | RIVERFRONT PARK & PLAZA

OUTCOMES

Based on discussion with the DDA and feedback from the public in engagement session 2, further refinement of the two concepts illustrated two design approaches. The primary difference between the two approaches involved partial and full closure of a segment of River Street between Pine and Water Streets. The refined plans proved additional detail and character, and suggest a variety of improvements to the overall park, promoting extended usage and programming opportunities throughout the seasons. Option 1, shown below on this page, illustrates a flush curb condition allowing for street closures during community events, improving overall accessibility for the park.

OPTION 1: FLUSH CURB ROAD

Note: This triangular piece of property is privately owned by Manistee County Community Foundation (not the City). Any future redevelopment of this area would have to be coordinated with the rightful property owners.

1.0 | RIVERFRONT PARK & PLAZA

OUTCOMES

Option 2 offers a recommendation for full closure of a segment of River Street, allowing this area to be dedicated to park programming and also providing space for a permanent market pavilion intended to host a variety of daily usage and special events programming. Option 2 provides space for outdoor programming with the sloped lawn area as well as the paved plaza located in the vacated River Street segment designed as a flexible area for a variety of activities including food trucks, ice rinks, and holiday tree lighting festivities. Other features include: seating areas inspired by the lumber industry, nature play area, a splash pad, and a relocated and enhanced fountain that serves as a visual terminus traveling west along River Street. This was the preferred option at Engagement Session 3.

OPTION 2: VACATED ROAD (PREFERRED OPTION)

Note: This triangular piece of property is privately owned by Manistee County Community Foundation (not the City). Any future redevelopment of this area would have to be coordinated with the rightful property owners.

2.0 | RIVERWALK CONNECTORS

RECONNECTING RIVER STREET - RIVER WALK

The overall study area for the River Street corridor included studying the connection between the streetscape corridors and the Riverwalk to the north. Enhancing this connection between River Street and the Riverwalk was a primary goal that the City, DDA, and the public expressed throughout the study process. There are a series of eight connectors throughout the River Street Corridor, with the primary connector illustrated in the graphic to the right and indicated in the overall plan diagram. The design recommends a bold gesture that reflects the history of Manistee's shipping industry through materials and graphics. Integrating graphics into the material through perforations or applied techniques, and integrating lighting into the overall experience will promote safer and more visible connections between River Street and the Riverwalk, and express authentic history and future of the community of Manistee.

The image to the right depicts a pocket park redesign on the backside of the Main Connector near the intersection of River Street and Greenbush Street. This is an excellent location for the Main Connector in the heart of downtown and provides a wonderful transition space from River Street to the Riverwalk with an activated park where people can view river activity from the platform overlook. The plaza is also programmed with custom wood benches built into the steps, buffer plantings to enclose the space, canopy tree plantings to provide shade and a vertical element to bring down the scale of the space, and a vertical elevator tower too that not only serves to make the Riverwalk more accessible for all abilities, but also as a landmark along the Riverwalk.

NOTE: THE REDEVELOPMENT OF THIS OBSERVATION PARK SHOWN BETWEEN BACK OF BUILDING AND RIVERWALK INCLUDES SOME PRIVATE PROPERTY. THE RIGHTFUL PROPERTY OWNERS WOULD NEED TO BE CONSULTED BEFORE ANY PROPOSED DESIGN IS IMPLEMENTED.

2.0 | RIVERWALK CONNECTORS

RECONNECTING RIVER STREET TO THE RIVER WALK

ACTIVATING RIVERWALK CONNECTIONS

Reconnecting the Riverwalk

The Riverwalk in Manistee is the #1 attraction for visitors. The public has pointed out that the problem is no one knows how to access it. There is no clear signage or wayfinding and the current gateways are hard to read and don't really stand out in between the buildings. This was one of the main priorities the consultants identified that needed immediate attention in the redesign. The images shown to the right display a corten perforated panel with the Manistee Pier and Lighthouse printed on the metal panel. These would set in between the buildings and would make a bold statement, clearly standing out among the building facades that would lead the user of the site down the river, a very intuitive process that's replicated throughout The Corridor. This would be the main gateway leading from River Street to the Riverwalk (near intersection of Greenbush Street & Main Street) with a pocket park on the backside of the buildings. There would be a series of other corten panels, clearly identifying where to access the Riverwalk, though the other gateways would be slightly smaller than the main gateway.

RIVERWALK CONNECTORS

PRIMARY & SECONDARY GATEWAYS

PRIMARY CONNECTOR (1)

- GREENBUSH ST. & RIVER ST.

SECONDARY CONNECTORS (7)

- OAK ST. & RIVER ST.
- MAPLE ST. & RIVER ST.
- POPLAR ST. & RIVER ST.
- MANISTEE INN & MARINA
- PUBLIC PARKING LOT
- DIVISION ST. & RIVER ST.
- MASON ST.

2.0 | RIVERWALK CONNECTORS - MAIN CONNECTOR

RECONNECTING RIVER STREET TO THE RIVER WALK

Pocket Park Space Activation

The intersection of Greenbush Street and River Street was chosen as the main Gateway for The Corridor. This was an ideal spot being centrally located in the project boundary, proximity to surface lot parking further south, and the back of buildings in this area serving as a great opportunity for placemaking along the Riverwalk. The gap between the two buildings also serves as an opportunity for a more grand, larger gateway entrance compared to other connecting areas in The Corridor.

The existing photo to the right shows an abundant amount of underutilized lawn space between the rear facade and the Riverwalk as well as the challenges that the steep grade change pose between River Street and the Riverwalk. There's an estimated 12-15' of grade change between River Street and the Riverwalk.

Upgrades to the backside of River Street buildings combines improved connectivity to Riverwalk, placemaking, and a destination overlook platform for river viewing activity

2.0 | RIVERWALK CONNECTORS - MAIN CONNECTOR

PHASE 1: SHORT TERM ACTIVATION

The platform overlook is the focal point of the redesigned plaza. It is striking architecturally and provides a unique vantage point looking down on the Manistee River to observe boat traffic

NOTE: THE REDEVELOPMENT OF THIS OBSERVATION PARK SHOWN BETWEEN BACK OF BUILDING AND RIVERWALK INCLUDES SOME PRIVATE PROPERTY. THE RIGHTFUL PROPERTY OWNERS WOULD NEED TO BE CONSULTED BEFORE ANY PROPOSED DESIGN IS IMPLEMENTED.

The irregular terraced landings and steps replicate the flow of the Manistee River as it meanders between Manistee Lake and Lake Michigan.

Custom wood benches are built into steps throughout the plaza for users of the site to relax and take in the nearby body of water. Deciduous canopy trees provide a vertical design element, bringing down the scale of the plaza while also providing shade. Colorful pops of blue are incorporated in tree planters that provide a nice contrast of color the the gray hardscape.

NOTE: THE REDEVELOPMENT OF THIS OBSERVATION PARK SHOWN BETWEEN BACK OF BUILDING AND RIVERWALK INCLUDES SOME PRIVATE PROPERTY. THE RIGHTFUL PROPERTY OWNERS WOULD NEED TO BE CONSULTED BEFORE ANY PROPOSED DESIGN IS IMPLEMENTED.

3.0 | STREETSCAPE RECOMMENDATIONS

OVERALL CORRIDOR PLAN

The plan diagram on this page illustrates the holistic River Street Corridor improvement strategy and recommendations, and the potential for a unified and coordinated River Street Corridor for both vehicular and pedestrian circulation.

Included in the Corridor Recommendations:

- **Streetscape Corridor Re-design,** it is recommended to mill and pave all of River Street within the project boundary. Traffic flow is recommended to stay the same as currently designed. Bumpouts will appear at driveway intersections and road intersections with River Street which allows for traffic calming pinch points, an opportunity for placemaking by increasing the pedestrian and amenity zones, and to provide more greenery with plant beds that can accommodate stormwater runoff. It is recommended the parallel parking spots are demarcated with pavers and abut a curbless amenity zone. The curbless street achieves multiple project goals: access for all users, traffic calming for safety, and provides a uniform and accessible surface condition for outdoor events and festivals that may occur throughout The Corridor.
- **Riverwalk Connectors**– The exhibit on the right shows the six Secondary Riverwalk Connectors and one primary Riverwalk Connector. These connectors are inspired by the Lighthouse Pier support structures as well as the history of the shipping industry in Manistee through both materials and form. The design of these connector features provide a consistent appearance along River Street announcing a connection to the Riverwalk, and have the opportunity for public art and/or educational/interpretive graphics to be etched or applied to the surfaces of these sculpted metal features.
- **Park Improvements -** Two Park designs have been incorporated into The Corridor: Riverfront Park & Plaza on the west end of the project (2 concepts) and the Riverfront pocket park that the Main Riverwalk Connector leads to off of Greenbush Street.

LEGEND

(2) - 11' WIDE TRAVEL LANES - 1 WAY (NOTE GEOMETRY HAS BEEN DESIGNED TO WORK AS 1 OR 2 WAY)

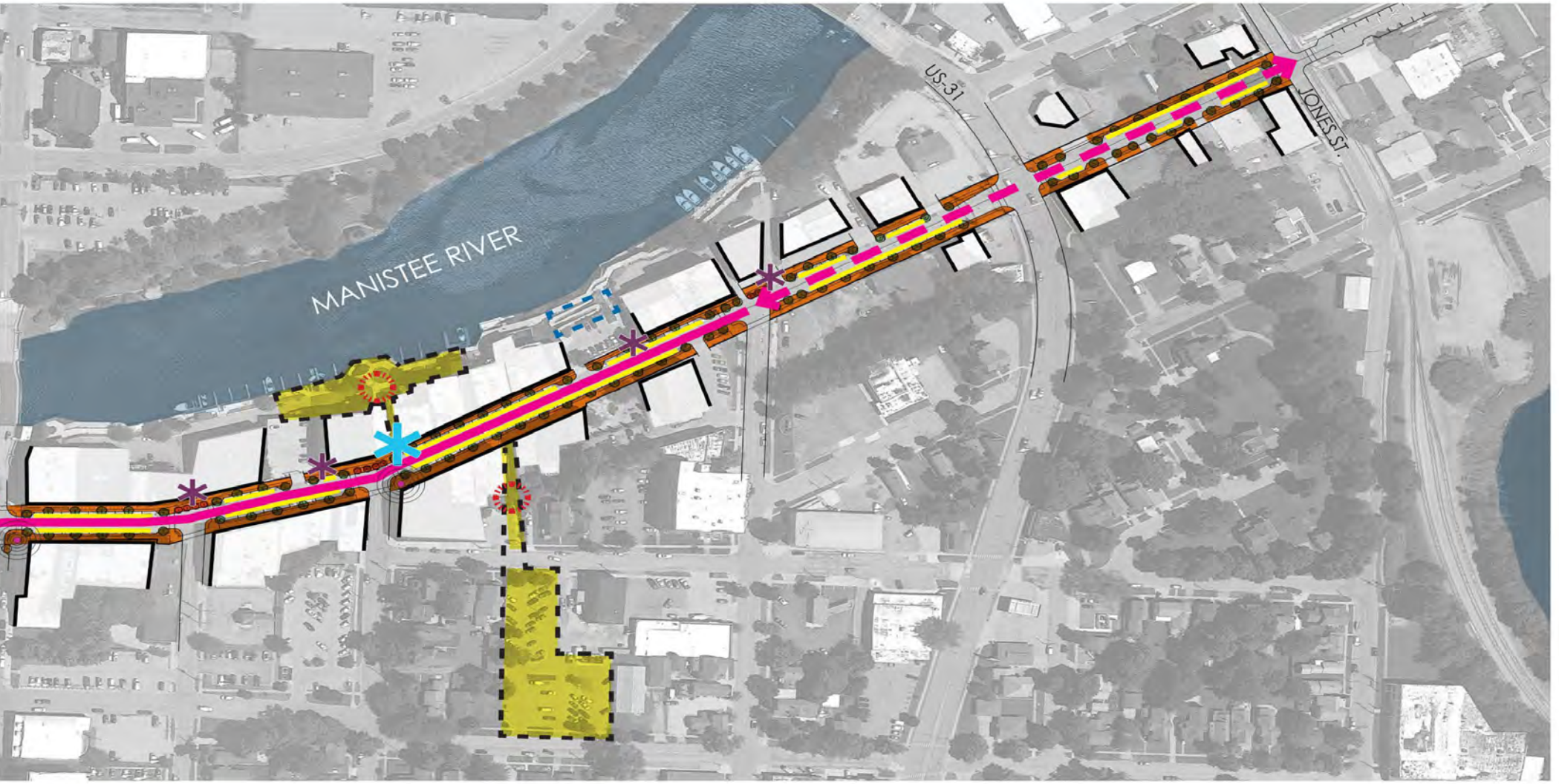
(2) - 11' WIDE TRAVEL LANES - 2 WAY (NOTE GEOMETRY HAS BEEN DESIGNED TO WORK AS 1 OR 2 WAY)

14-22' WIDE AMENITY / PEDESTRIAN ZONE INCLUDING SEATING, PEDESTRIAN LIGHTING, PLANTER BEDS, PERMEABLE PAVERS, TREES, AND SNOWMELT (REFER TO ENLARGEMENT SHEET FOR MORE DETAIL

8' WIDE PERMEABLE PAVER PARALLEL PARKING WITH CURBLESS TRANSITION TO AMENITY / PEDESTRIAN ZONES

ON-STREE PARKING COUNTS:

PROPOSED SPACES WITH VACATED ROAD OPTION: 203
PROPOSED SPACES WITHOUT VACATED ROAD OPTION: 228
EXISTING SPACES: 232



REDESIGNED PARKS

PRIMARY RIVER WALK CONNECTOR

SECONDARY RIVER WALK CONNECTORS

COLUMNAR DECIDUOUS CANOPY TREES

ORNAMENTAL TREES LOCATED AT TERMINATING INTERSECTIONS ALONG RIVER STREET

PROPOSED ELEVATOR LOCATIONS (2)

ALTERNATE ELEVATOR LOCATION

PROPOSED FIRE FEATURE LOCATION

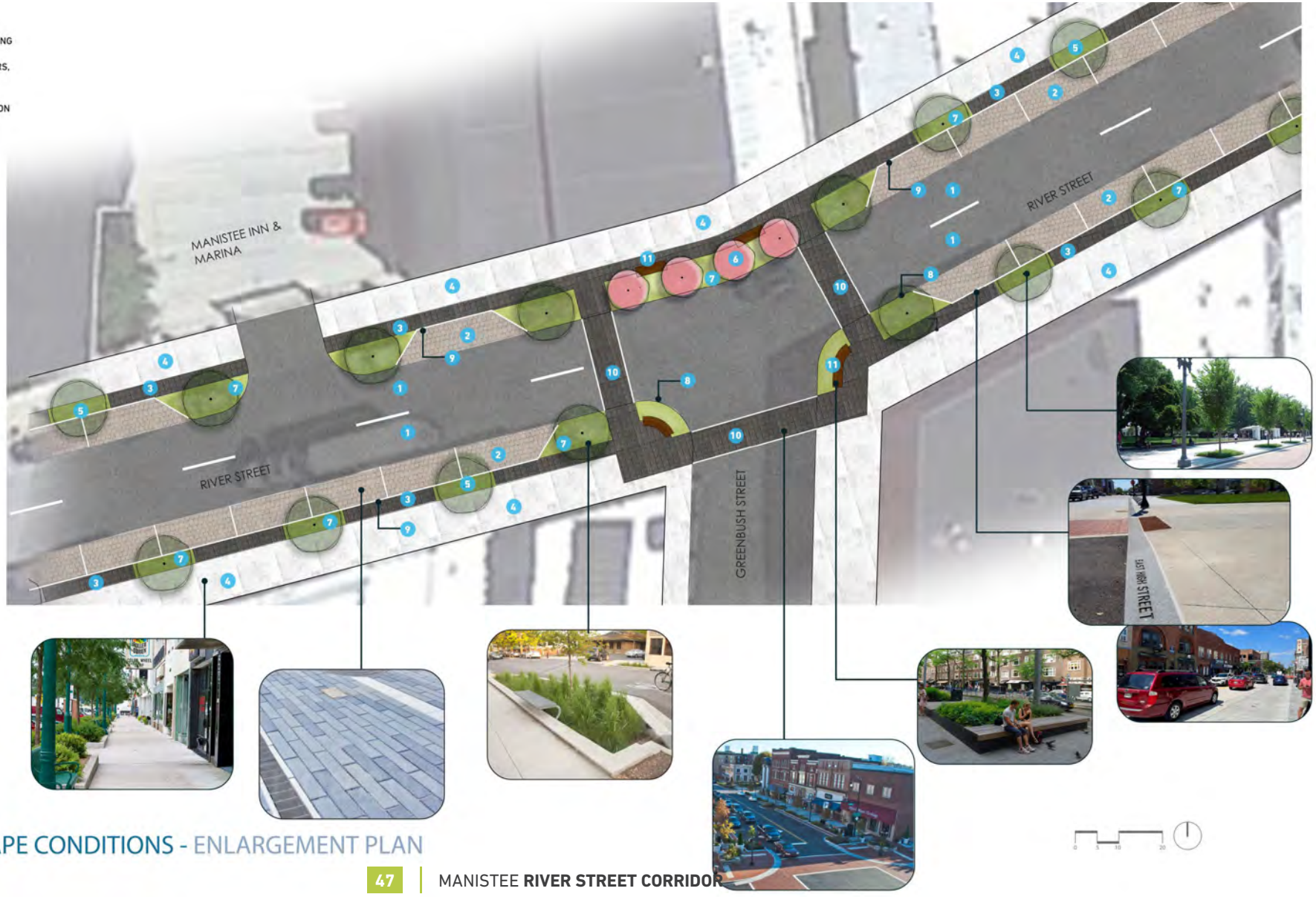
ALTERNATE FIRE FEATURE LOCATIONS (3)

NOTE: THE REDEVELOPMENT OF THE OBSERVATION PARK SHOWN BETWEEN BACK OF BUILDING AND RIVERWALK AND THE TRIANGULAR PIECE OF PROPERTY NEAR MARINA PARK INCLUDES SOME PRIVATE PROPERTY. THE RIGHTFUL PROPERTY OWNERS WOULD NEED TO BE CONSULTED BEFORE ANY PROPOSED DESIGN IS IMPLEMENTED.

STREETSCAPE ENLARGEMENT PLAN

The 2D plan view below gives a more in-depth look at what the redesigned streetscape would look like. The redesign includes vehicular travel lanes, parallel parking on pavers, bumpouts at intersections and driveways, deciduous canopy trees, ornamental trees, concrete pedestrian circulation zones and paver pedestrian amenity zones with seating and plantings.

1. 11' WIDE TRAVEL LANES (1-WAY OR 2-WAY)
2. 8' WIDE PERMEABLE PAVER PARALLEL PARKING
3. 4-13' WIDE AMENITY ZONE INCLUDING: PAVERS, SEATING, PEDESTRIAN LIGHTING, PLANTER BEDS AND SNOWMELT SYSTEMS
4. ~9' WIDE CONCRETE PEDESTRIAN CIRCULATION ZONE WITH SNOWMELT SYSTEMS
5. COLUMNAR DECIDUOUS CANOPY TREES
6. ORNAMENTAL TREES AT STREETS TERMINATING AT RIVER STREET
7. PLANTER BEDS WITH CURB CUTS TO RECEIVE STORMWATER RUNOFF
8. TRAFFIC CALMING BUMPOUTS AT INTERSECTIONS
9. CURBLESS STREETS WHERE PARKING ABUTS SIDEWALK
10. PAVER CROSSWALKS
11. WOOD BENCHES BUILT INTO PLANTERS

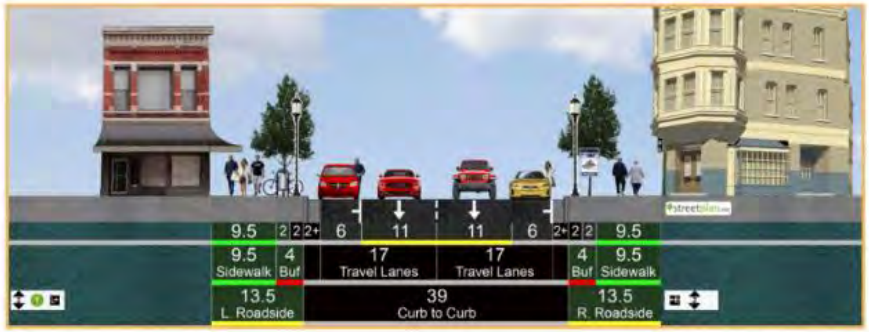


TYPICAL STREETSCAPE CONDITIONS - ENLARGEMENT PLAN

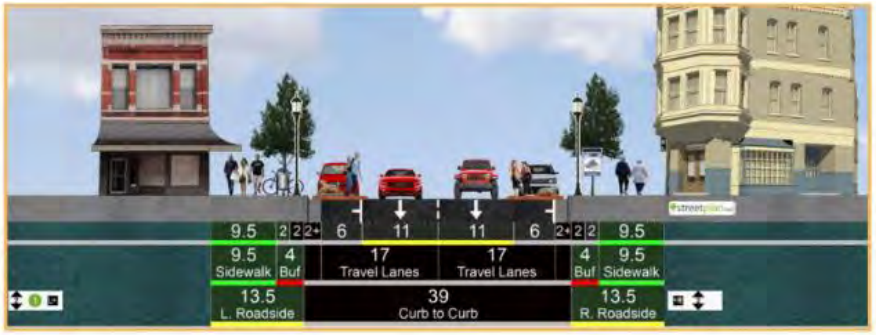
RIVER STREET CORRIDOR - STREETSCAPE SECTION DESIGN SOLUTIONS

EXISTING SITE PHOTO

PREFERRED STREET CROSS-SECTION OPTIONS



OPTION B - TWO LANE, ONE WAY TRAFFIC WITH PARALLEL PARKING BOTH SIDES



OPTION E - TWO LANE, ONE WAY TRAFFIC WITH PARALLEL PARKING BOTH SIDES & BUMPOUTS

PROJECT GOALS & EMERGING THEMES

IMPROVE MOBILITY FOR ALL MODES

- CONNECTING THE CORRIDOR WITH SAFE AND ACCESSIBLE FACILITIES FOR VEHICLES, PEDESTRIANS, AND CYCLISTS

PROVIDE A GREEN STREET CORRIDOR AND RIVERFRONT

- INCREASE TREE CANOPY WHERE APPROPRIATE

PROVIDE AREAS & SPACES FOR PEOPLE TO LINGER DOWNTOWN

- CREATING A WELCOMING PUBLIC REALM WITH LANDSCAPING AND AMENITIES ALONG THE CORRIDOR & NEW PUBLIC SPACES THAT SUPPORT ADJACENT LAND USES

3.1 | STREETSCAPE RECOMMENDATIONS - ACCESSIBILITY

ACCESSIBILITY RECOMMENDATIONS:

Throughout the engagement process, one word kept getting brought up at the three public meetings: accessibility. Given the steep grade change from the Riverwalk to River Street and from River Street to surface parking lots one block south of River Street, this needed to be addressed so the focus areas could be accessed safely by all. This diagram shows two proposed elevator locations and one alternate location. These locations are in the heart of the River Street Corridor near Greenbush and River Street and they help get people navigate from a large surface lot, to the main connector, to the observation platform and finally down to the Riverwalk - pocket park . One of the main signature pieces of the redesign becomes accessible for all through this design solution.

MAIN GATEWAY REDESIGN INSPIRATION

MAIN GATEWAY RECOMMENDATIONS:

A key feature of the River Street Corridor is the existing gateway arch that spans across the street near US-31. This playbook recommends improving this feature and potentially expanding the gateway gesture along River Street. The design board shown on this sheet was presented at engagement session 3 and the precedent image outlined in red was the unanimous favorite. The takeaway from this is that the redesigned gateway should have a lighting component, and it should have a strong contrast between the lettering and other materials so when it's not lit, it is easily legible, which is not the case now. It is also recommended by the consultants that the same materials, theme and style used for the "connectors" should be applied to the gateway for design continuity.

BEST PRACTICE IMAGERY + DESIGN INSPIRATION

BEST PRACTICE IMAGERY + DESIGN INSPIRATION

3.3 | STREETSCAPE RECOMMENDATIONS - FINAL QUESTIONNAIRE

FINAL QUESTIONNAIRE - RESULTS

The consultant team wanted to make sure they didn't miss the mark and needed to ensure the design direction they were heading aligned with previously crafted goals, and the public's vision. In order to do this, a final survey was crafted. In addition to the above, it's important to figure out priorities and phasing of projects being built. This survey will help determine priority from the public's standpoint and what they feel is most important and pressing in the future redesign.

- Aesthetic Improvements and Vehicular Circulation tied for the two most important categories of improvement. Economic Development was voted least important of the three listed categories
- Of the six goals listed, Connect, Stay and Green were voted as the top three. Smart growth and Access also received votes and tied for fourth.
- Of the recommended improvements, the Streetscape Redesign and Riverwalk Connectors were the top two options. The Marina park, Gateway, and Wayfinding all tied for third.
- The consultant's vision statement got rated an average of 7.75 out of a possible 10 for being agreeable as a statement that represent's the project goals and themes well.

Recommendations, Next Steps, and Phasing .....

The following questions will be used to help gauge short term vs. long term needs for the corridor and will help guide the future development and implementation strategies of River Street.

1. Rank these categories of improvements from 1 (highest priority) to 3 (lowest priority)

Aesthetic Improvements
(Planter Beds & Trees,
New Furnishings & Lighting,
Brick Paver Walks & Streets)

Vehicular Circulation
(Reconfiguring Traffic Flow,
Reconfiguring On Street Parking,
Reconfiguring Lane Widths)

Economic Development
Urban Infill,
Increasing Demand for
for New Business,
Infrastructure upgrades

2. Of the 6 goals listed below, what are your top 3 goals that would warrant a Phase 1 implementation, to be addressed first, in a redeveloped River Street Corridor? (Choose your top 3)

-CONNECT – Provide + Improve Access between River Street, Downtown, and Manistee River
-STAY – Provide Areas + spaces for people to linger downtown (extend stay)
-GREEN – Proved a sustainable, green street corridor and Riverfront
-ACCESS – Improve mobility for all modes of transportation
-SMART GROWTH – Guide growth to support livability
-IMPROVE – Existing Infrastructure and recommend utility upgrades

3. Of the recommended improvements, what would you like to see implemented first? (Choose your top 3)

-Streetscape Redesign with traffic calming bumpouts, repaved asphalt street, paver parallel parking stalls, and pedestrian amenity zones
-Marina Park
-Riverwalk Connectors
-Gateway
-Trees and Furnishings
-Wayfinding Signage
-Elevators / Access to Riverwalk
-Snowmelt

4. On a scale of 1-10 (1 least agreeable, 10 being most agreeable) how would you rate the vision statement that's formed out of our project goals and emerging themes. *"The River Street Corridor and Manistee River Riverfront are historic, energetic, and resilient urban assets and destinations located in the heart of Manistee, where smart growth supports an environment for everyone to succeed."*
7.75 Average

01

02

03

04 PROJECT BUDGETS

05

LOOKING AHEAD

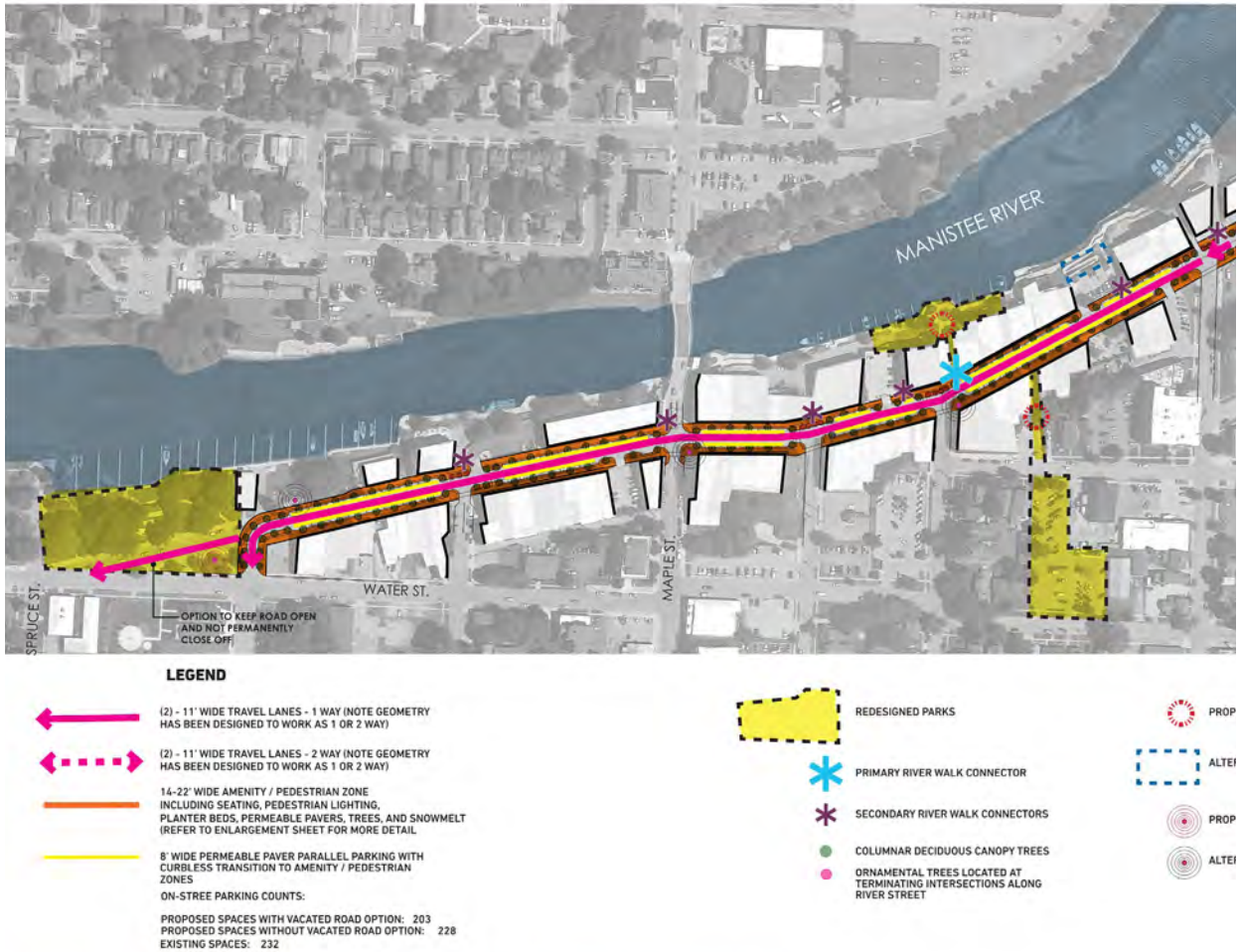
The River Street Corridor studies contain a broad series of recommendations that describe activation events and improvements for the future of the area. These recommendations have resulted from an intensive six-month study process which involved defining short and long-term projects and community issues, the review of planning and design alternatives, design principles and goals, and more detailed project description and definition associated with identified focus areas in the master plan.

The following list of focus areas and phases comprises the Manistee River Street Corridor Enhancements and Future Planning Services Playbook. Implementation of the recommendations included in the playbook will be achievable over time through a series of individual projects. Community needs may change, priorities will be altered, and not all recommendations will be implemented as planned. It is not contingent upon numerous other projects in order to complete a logical planning and development sequence. It is important that the Master Plan provide flexibility in the manner that recommendations and phases are implemented to serve as a viable tool over time.

The following probable costs are based on general planning and design parameters and represent order-of-magnitude costs, in 2023 dollars, that are suitable for general planning purposes. These are not intended to represent total project costs and should not be reflected as such. Actual project costs must be based on a build-up of more detailed design and engineering information.

1.0 STREETSCAPE & CONNECTOR IMPROVEMENTS

OPINION OF PROBABLE CONSTRUCTION COST



OVERALL STREETSCAPE - CORRIDOR PLAN RECOMMENDATIONS

Streetscape

Item	Urban Streetscape and road resurfacing	Total Qty.	Unit	Unit Price ($)		*Total Price*
	Redesign "essentials" (7 blocks, 65' wide)	3,500	LF	$2,300.00	Low	**$8,050,000**
	Redesign "progressive" (7 blocks, 65' wide)	3,500	LF	$3,000.00	High	**$10,500,000**

Connectors

Item	Description	Total Qty.	Unit	Unit Price ($)	*Total Price*
	Primary Riverwalk Connector at Greenbush & River				**$531,000**
	Primary Connector	1	LS	$75,000	$75,000
	Allyway improvements	3,900	SF	$40	$156,000
	Accessory Building with lift	1	LS	$200,000	$200,000
	Elevated walkway	1	LS	$100,000	$100,000
	Secondary Riverwalk Connector				
	Oak Street & River Street				**$120,000**
	Secondary Riverwalk Connector	1	LS	$50,000	$50,000
	Allyway improvements	2,000	SF	$35	$70,000
	Maple Street & River Street				**$120,000**
	Secondary Riverwalk Connector	1	LS	$50,000	$50,000
	Allyway improvements	2,000	SF	$35	$70,000
	Poplar Street & River Street				**$120,000**
	Secondary Riverwalk Connector	1	LS	$50,000	$50,000
	Allyway improvements	2,000	SF	$35	$70,000
	Manistee Inn & Marina				**$120,000**
	Secondary Riverwalk Connector	1	LS	$50,000	$50,000
	Allyway improvements	2,000	SF	$35	$70,000
	Public Parking Lot				**$355,000**
	Secondary Riverwalk Connector	1	LS	$50,000	$50,000
	Allyway improvements	3,000	EA	$35	$105,000
	Accessory Building with lift	1	LS	$200,000	$200,000
	Division Street & River Street				**$120,000**
	Secondary Riverwalk Connector	1	LS	$50,000	$50,000
	Allyway improvements	2,000	SF	$35	$70,000
	Mason Street				**$120,000**
	Secondary Riverwalk Connector	1	LS	$50,000	$50,000
	Allyway improvements	2,000	SF	$35	$70,000
				Connectors	**$1,606,000**

*Note: Unit price values derived from recent bid pricing (2023) and MKSK assumption of work effort required. MKSK has no control over the cost of labor, materials, or the contractors methods of determining bid prices, or over competitive bidding or market conditions. Therefore, MKSK cannot guarantee that bids or construction cost will not vary from any estimates of probable construction cost prepared by them.

1.1 RIVERFRONT PLAZA & PARK & GATEWAY SIGN IMPROVEMENTS

OPINION OF PROBABLE CONSTRUCTION COST

DESIGN - OPTION 2: VACATED ROAD

Manistee Marina Park

Item	Description	Total Qty.	Unit	Unit Price ($)		*Total Price*
	Redesign "essentials" (curbless road)				Low	**$4,125,000**
	Hardscape/softscape	75,000	SF	$35.00		$2,625,000
	Waterfeatures	1	LS	$500,000.00		$500,000
	Pavilion	1	LS	$1,000,000.00		$1,000,000
	Redesign "progressive" (vacated road)				High	**$11,700,000**
	Hardscape/softscape	75,000	SF	$46.00		$3,450,000
	Waterfeatures	1	LS	$750,000.00		$750,000
	Pavilion	1	LS	$1,000,000.00		$1,000,000
	Accessory buildings	10,000	SF	$650.00		$6,500,000

Manistee Gateway Sign

Item	Description	Total Qty.	Unit	Unit Price ($)		*Total Price*
	Demolition & Redesign "essentials"				Low	**$100,000**
	Demolition & Redesign "deluxe"				High	**$200,000**

*Note: Unit price values derived from recent bid pricing (2023) and MKSK assumption of work effort required. MKSK has no control over the cost of labor, materials, or the contractors methods of determining bid prices, or over competitive bidding or market conditions. Therefore, MKSK cannot guarantee that bids or construction cost will not vary from any estimates of probable construction cost prepared by them.

1.2 SNOWMELT SYSTEM - ALTERNATE

OPINION OF PROBABLE CONSTRUCTION COST

City of Manistee

River Street Corridor
Pre-Design Estimate of Probable Costs
Snow melt system

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

MKSK

Project: 861410
Date: 10/26/2023
By: SA/RWS

Item No.	Item Description	Unit	Est. Qnty.	Engineer's Estimate Unit Price	Engineer's Estimate Amount
	River Street				
1	River Street - Cypress to Division Street	Sft	10,500	$40	$420,000
2	River Street - Division Street to Greenbush Street	Sft	14,500	$40	$580,000
3	River Street - Greenbush Street to Poplar Street	Sft	6,000	$40	$240,000
4	River Street - Poplar Street to Maple Street	Sft	6,000	$40	$240,000
5	River Street - Maple Street to Oak Street	Sft	9,500	$40	$380,000
6	River Street - Oak Street to Pine Street	Sft	10,200	$40	$408,000
	Subtotal River Street		56,700		$2,268,000
	Side streets				
7	Division Street - River Street to Lake Street (East Side)	Sft	2,800	$40	$112,000
8	Poplar Street - River Street to Water Street	Sft	4,000	$40	$160,000
9	Greenbush Street- River Street to Clay Street	Sft	5,500	$40	$220,000
10	Maple Street - Bridge to Water Street	Sft	10,800	$40	$432,000
11	Oak Street - River Steet to Water Street (East side)	Sft	1,800	$40	$72,000
	Subtotal - Side streets		24,900		$996,000
	Crosswalks				
12	Cypress Street & River Street Intersection Crosswalks	Sft	2,500	$45	$112,500
13	Division Street & River Street Intersection Crosswalks	Sft	1,700	$45	$76,500
14	Greenbush Street & River Street Intersection Crosswalks	Sft	1,500	$45	$67,500
15	Poplar Street & River Street Intersection Crosswalks	Sft	1,700	$45	$76,500
16	Maple Street & River Street Intersection Crosswalks	Sft	2,500	$45	$112,500
17	Oak Street & River Street Crosswalks	Sft	2,600	$45	$117,000
18	Pine Street & River Street Crosswalks	Sft	1,100	$45	$49,500
	Subtotal - Crosswalks		13,600		$612,000
	Miscellaneous				
19	Marina/River/Water Public Gathering space	Sft	33,000	$40	$1,320,000
	Subtotal Sft - all misc. areas		33,000		$1,320,000

TOTAL ESTIMATED CONSTRUCTION COST (ROUNDED):	$ 5,200,000
Contingency 20%:	$ 1,040,000
Subtotal	$ 6,240,000
MEP Fees - Estimated	$ 440,000
Total	**$ 6,680,000**

SFT cost includes the removal and replacement of the existing sidewalk and installation of snowmelt.
SFT cost for crosswalks includes a thickened concrete cross section.
SFT does not include roadways or on street parking along River Street
SFT are approximate from aerial photo.

Total SFT - All Areas	**128,000**
Average cost Per Sft	**$ 52.00**
Average cost per Sft - Operation	**$ 0.80**

City of Manistee

River Street Corridor
Pre-Design Estimate of Probable Costs
Snow melt system

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

MKSK

Project: 861410
Date: 10/26/2023
By: SA/RWS

Item No.	Item Description	Unit	Est. Qnty.	Engineer's Estimate Unit Price	Engineer's Estimate Amount
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3	River Street - Greenbush Street to Poplar Street	Sft	6,000	$40	$240,000
4	River Street - Poplar Street to Maple Street	Sft	6,000	$40	$240,000
5	River Street - Maple Street to Oak Street	Sft	9,500	$40	$380,000
6	River Street - Oak Street to Pine Street	Sft	10,200	$40	$408,000
	Subtotal River Street		56,700		$2,268,000
	Side streets				
7	Division Street - River Street to Lake Street (East Side)	Sft	2,800	$40	$112,000
8	Poplar Street - River Street to Water Street	Sft	4,000	$40	$160,000
9	Greenbush Street- River Street to Clay Street	Sft	5,500	$40	$220,000
10	Maple Street - Bridge to Water Street	Sft	10,800	$40	$432,000
11	Oak Street - River Steet to Water Street (East side)	Sft	1,800	$40	$72,000
	Subtotal - Side streets		24,900		$996,000
	Crosswalks				
12	Cypress Street & River Street Intersection Crosswalks	Sft	2,500	$45	$112,500
13	Division Street & River Street Intersection Crosswalks	Sft	1,700	$45	$76,500
14	Greenbush Street & River Street Intersection Crosswalks	Sft	1,500	$45	$67,500
15	Poplar Street & River Street Intersection Crosswalks	Sft	1,700	$45	$76,500
16	Maple Street & River Street Intersection Crosswalks	Sft	2,500	$45	$112,500
17	Oak Street & River Street Crosswalks	Sft	2,600	$45	$117,000
18	Pine Street & River Street Crosswalks	Sft	1,100	$45	$49,500
	Subtotal - Crosswalks		13,600		$612,000
	Miscellaneous				
19	Marina/River/Water Public Gathering space	Sft	33,000	$40	$1,320,000
20	On-Street Parking (Assumes Precast Pavers)	Sft	34,200	$60	$2,052,000
21	River Street Travel Lanes	Sft	58,000	$40	$2,320,000
	Subtotal Sft - all misc. areas		125,200		$5,692,000

TOTAL ESTIMATED CONSTRUCTION COST (ROUNDED):	$ 9,570,000
Contingency 20%:	$ 1,910,000
Subtotal	$ 11,480,000
MEP Fees - Estimated	$ 804,000
Total	**$ 12,280,000**

SFT cost includes the removal and replacement of the existing sidewalk and installation of snowmelt.
SFT cost for crosswalks includes a thickened concrete cross section.
SFT are approximate from aerial photo.

Total SFT - All Areas	**220,000**
Average cost Per Sft	**$ 56.00**
Average cost per Sft - Operation	**$ 0.80**

1.3 UTILITY IMPROVEMENTS

OPINION OF PROBABLE CONSTRUCTION COST

City of Manistee

Engineer's Pre-Design Estimate of Project Cost**

River Street Watermain Replacement

FLEIS&VANDENBRINK

Project: 861410
Date: 11/22/2023
By: Ben K

Description of Improvements: Remove & Replace Exsiting 8 inch CIP watermain with new 8 inch watermain on River Street from US-31 to Spruce Street, assumes pavement, sidewalk, curb and gutter is inlcuded in cost of streetscape items.

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	ESTIMATE UNIT PRICE	ESTIMATED AMOUNT
1	General Conditions, Bonds, and Insurances, Max. 5%	LSum	1	$ 48,000	$ 48,000
2	8" Watermain	Lft	3,300	$ 90	$ 297,000
3	Water Service	Lft	2,900	$ 40	$ 116,000
4	Connect to Existing Watermain	Ea	8	$ 5,000	$ 40,000
5	Curb Stop, Corp Stop, & Box	Ea	82	$ 4,000	$ 328,000
6	Reconnect Water Service	Ea	82	$ 500	$ 41,000
7	Hydrant Assembly	Ea	8	$ 9,000	$ 72,000
8	Gate Valve & Box, 8 inch	Ea	16	$ 3,000	$ 48,000
				Subtotal:	$ 990,000
				Undeveloped Design Details & Contingency (~15%):	$ 148,500
				Total Estimated Construction Cost (rounded):	**$ 1,139,000**
				Engineering (~18%):	$ 171,000
				Total Estimated Project Recommended Budget (Rounded):	**$ 1,310,000**

***The Design Professional has no control over costs or the price of labor, equipment or materials, or over the Contractor's method of pricing. Bid prices may vary significantly based on these factors and market conditions at time of bid.*

City of Manistee

Engineer's Pre-Design Estimate of Project Cost**

River Street Sanitary Sewer Rehabilitation

FLEIS&VANDENBRINK

Project: 861410
Date: 11/22/2023
By: Ben K

Description of Improvements: CIPP lining of 6, 12, 18, and 24 inch sanitary sewer and manhole rehabiltation on River Street from US-31 to Spruce Street

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	ESTIMATE UNIT PRICE	ESTIMATED AMOUNT
1	General Conditions, Bonds, and Insurances, Max. 5%	LSum	1	$ 42,000	$ 42,000
2	6" CCTV & CIPP	Ft	500	$ 35	$ 17,500
3	12" CCTV & CIPP	Ft	300	$ 80	$ 24,000
4	18" CCTV & CIPP	Ft	700	$ 105	$ 73,500
5	24" CCTV & CIPP	Ft	3,100	$ 190	$ 589,000
6	Manhole Lining	Ea	16	$ 8,000	$ 128,000
				Subtotal:	$ 874,000
				Undeveloped Design Details & Contingency (~15%):	$ 131,100
				Total Estimated Construction Cost (rounded):	**$ 1,005,000**
				Engineering (~18%):	$ 151,000
				Total Estimated Project Recommended Budget (Rounded):	**$ 1,160,000**

***The Design Professional has no control over costs or the price of labor, equipment or materials, or over the Contractor's method of pricing. Bid prices may vary significantly based on these factors and market conditions at time of bid.*

1.4 COST BREAKOUT DIAGRAM

OPINION OF PROBABLE CONSTRUCTION COST

01

02

03

04

05 PROJECT IMPLEMENTATION

1.0 PROJECT IMPLEMENTATION & COST PHASING MATRIX - NEAR TERM

PLANNING BUDGETS

PROJECT IMPLEMENTATION MATRIX				
TIME RANGE	GOAL	DESCRIPTION	BENEFITS	COST RANGE
NEAR TERM (0-2 YEARS)	ACCESS: 2-WAY TRAFFIC IMPLEMENTATION STRATEGY*	IMPLEMENT 2-WAY TRAFFIC AT RIVER STREET (EAST OF MAPLE), ADD NO LEFT TURN FOR SOUTH BOUND TRAFFIC. NEW TRAFFIC LIGHT NOT REQUIRED. (REFER TO PAGES 16, 45-48, 70-74)	• CONVERSION OF TRAFFIC FLOW INTENDED TO IMPROVE OVERALL CORRIDOR SAFETY, IMPROVE DOWNTOWN VEHICULAR CIRCULATION, AND INCREASE VISIBILITY AND ACCESS TO DOWNTOWN BUSINESSES	**$50,000**
	ACCESS: PARKING	ADDITION OF CONTROLLED PARKING STRATEGY (METERS OR DIGITAL/ONLINE) INTENDED TO PROMOTE AVAILABILITY OF PARKING SPACES NEAR BUSINESSES. ENCOURAGE BUSINESS OWNERS TO UTILIZE FREE SURFACE LOTS WITHIN DOWNTOWN AREA (REFER TO PAGES 18, 45-49, 75-80)	• REVISED PARKING MANAGEMENT STRATEGY INTENDED TO INCREASE PARKING SPACE TURNOVER, PROVIDE MORE PATRON ACCESS TO DOWNTOWN COMMERCE, AND INCREASE PARKING REVENUE	**$300,000-350,000**
	SUSTAINABLE DESIGN: STORMWATER INFILTRATION*	INCORPORATE PLANT BEDS TO RECEIVE STORMWATER RUNOFF AND ALLOW INFILTRATION (INCLUDES TREES, DEEP SOIL MIX, PERENNIALS, MULCH) (REFER TO PAGE 45-47)	• A GREEN STORMWATER STRATEGY WILL REDUCE DEMAND ON BURIED INFRASTRUCTURE AND PROMOTE A GREENER AND MORE RESILIENT DOWNTOWN ENVIRONMENT	**$270,000**
	SAFETY: SIDEWALK REPAIR*	RESET ALL EXISTING PAVERS, REPAIR DAMAGED CONCRETE AREAS (REFER TO PAGE 45-47)	• IMPROVING ACCESSIBILITY THROUGHOUT THE CORRIDOR PROVIDES BETTER CONNECTIVITY AND REDUCES RISKS FOR HEALTH AND SAFETY	**$400,000**
	PUBLIC SPACE ENHANCEMENTS: MARINA PARK	IMPLEMENT TEMPORARY, SYNTHETIC ICE RINK IN PARK (REFER TO PAGE 33-36)	• ACTIVATION AND PROGRAMMING OF DOWNTOWN PUBLIC REALM INCREASES DOWNTOWN VISITATION AND LENGTHENS STAYS	**$150,000**
	PUBLIC SPACE ENHANCEMENT: PLACEMAKING	IMPLEMENT SPEAKERS IN MARINA PARK & MAIN CONNECTOR PARK (REFER TO PAGE 33-36, 41-44)	• ACTIVATION AND PROGRAMMING OF DOWNTOWN PUBLIC REALM INCREASES DOWNTOWN VISITATION AND LENGTHENS STAYS	**$15,000**
	PUBLIC SPACE ENHANCEMENT: PLACEMAKING*	ADD CUSTOM FIRE PITS / FIREPLACES IN DOWNTOWN PUBLIC REALM (3) (REFER TO PAGE 31, 45-46)	• ACTIVATION AND PROGRAMMING OF DOWNTOWN PUBLIC REALM INCREASES DOWNTOWN VISITATION AND LENGTHENS STAYS	**$150,000**
	PUBLIC SPACE ENHANCEMENT: PLACEMAKING	RETROFIT EXISTING STREETLIGHTS WITH LED BULBS (REFER TO PAGE 29)	• INCREASED LIGHTING FOR SAFETY AND REDUCTION OF MAINTENANCE COSTS	**$31,000**
	PUBLIC SPACE ENHANCEMENT: PLACEMAKING	IMPLEMENT / ENHANCE WIFI IN AMENITY AREAS DOWNTOWN ($50K a year, 5 years)	• ACTIVATION AND PROGRAMMING OF DOWNTOWN PUBLIC REALM INCREASES DOWNTOWN VISITATION AND LENGTHENS STAYS	**$250,000**
	PUBLIC SPACE ENHANCEMENT: PLACEMAKING*	UPDATE GATEWAY FEATURES AND SIGNAGE TO IMPROVE IDENTITY AND LEGIBILITY (REFER TO PAGE 50)	• GATEWAY SIGNAGE IMPROVEMENTS ENHANCES OVERALL EXPERIENCE AND PROMOTES DOWNTOWN BRAND	**$25,000**

*Goal may require prerequisites such as planning or engineering documentation submittal and review / approval before implementing.

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1.1 PROJECT IMPLEMENTATION & COST PHASING MATRIX - MID & LONG TERM

PLANNING BUDGETS

*Note: Unit price values derived from recent bid pricing (2023) and MKSK assumption of work effort required. MKSK has no control over the cost of labor, materials, or the contractors methods of determining bid prices, or over competitive bidding or market conditions. Therefore, MKSK cannot guarantee that bids or construction cost will not vary from any estimates of probable construction cost prepared by them.

PROJECT IMPLEMENTATION MATRIX

TIME RANGE	GOAL	DESCRIPTION	BENEFITS	COST RANGE
MID TERM (2-5 YEARS)	ACCESS: CURBLESS STREET*	INCORPORATE FLUSH CURBING AND BUMPOUTS THROUGHOUT RIVER STREET CORRIDOR - $676/LF (REFER TO PAGES 45-46)	• FLUSH CURBING INSTALLATION PROVIDES A MORE ACCESSIBLE DOWNTOWN EXPERIENCE FOR ALL USERS, AND SUPPORT FUTURE PROGRAMMING AND ACTIVATION THROUGHOUT THE DOWNTOWN CORRIDOR	**$2,100,000**
	ACCESS: PARKING*	CONSTRUCT OUTDOOR ELEVATOR STRUCTURES (2) IN AREAS INDICATED IN REPORT TO IMPROVE OVERALL ACCESSIBILITY (REFER TO PAGES 18, 45-49, 75-80)	• ADDITION OF OUTDOOR ELEVATORS WILL PROVIDE NEEDED CONNECTIVITY BETWEEN DOWNTOWN AND THE RIVERWALK, IMPROVING ACCESSIBILITY FOR ALL USERS	**$400,000**
	PUBLIC SPACE ENHANCEMENTS: MARINA PARK	IMPLEMENT TEMPORARY /SEASONAL ICE RINK IN MARINA PARK (REFER TO PAGES 33-36)	• ACTIVATION AND PROGRAMMING OF DOWNTOWN PUBLIC REALM INCREASES DOWNTOWN VISITATION AND LENGTHENS STAYS	**$430,000**
	SAFETY: SIDEWALK REPAIR*	REMOVE AND REPLACE ALL SIDEWALKS, CROSSWALKS IN CORRIDOR WITH A MIX OF NEW CONCRETE AND NEW PAVERS (60% CONCRETE/40% PAVERS) (REFER TO PAGES 45-47)	• IMPROVING ACCESSIBILITY THROUGHOUT THE CORRIDOR PROVIDES BETTER CONNECTIVITY AND REDUCES RISKS FOR HEALTH AND SAFETY	**$700,000-950,000**
	SAFETY: SIDEWALK REPAIR*	REMOVE AND REPLACE ALL SIDEWALKS, CROSSWALKS IN CORRIDOR WITH ALL NEW PAVERS ((REFER TO PAGES 45-47)	• MPROVING ACCESSIBILITY THROUGHOUT THE CORRIDOR PROVIDES BETTER CONNECTIVITY AND REDUCES RISKS FOR HEALTH AND SAFETY	**$800,000-1,4000,000**
	PUBLIC SPACE ENHANCEMENT: PLACEMAKING*	INCORPORATE NEW WAYFINDING SIGNAGE THROUGHOUT RIVER STREET CORRIDOR (REFER TO PAGES 27-28)	• GATEWAY SIGNAGE IMPROVEMENTS ENHANCES OVERALL EXPERIENCE, NAVIGATION, AND PROMOTES DOWNTOWN BRAND	**$100,000**
	PUBLIC SPACE ENHANCEMENT: PLACEMAKING	IMPROVE ALL STREET LIGHTS WITH LED BULBS, POLE REFURBISHING AND FIXTURE UPGRADE (REFER TO PAGES 17, 29)	• INCREASED LIGHTING FOR SAFETY AND REDUCTION OF MAINTENANCE COSTS	**$360,000**
LONG TERM (5+ YEARS)	ACCESS: 2-WAY TRAFFIC IMPLEMENTATION STRATEGY*	2-WAY TRAFFIC THROUGHOUT ENTIRE CORRIDOR WITH NEW SIGNAL AT MAPLE INTERSECTION (REFER TO PAGES 16, 45-48, 70-74)	• CONVERSION OF TRAFFIC FLOW INTENDED TO IMPROVE OVERALL CORRIDOR SAFETY, IMPROVE DOWNTOWN VEHICULAR CIRCULATION, AND INCREASE VISIBILITY AND ACCESS TO DOWNTOWN BUSINESSES	**$250,000-300,000**
	SUSTAINABLE DESIGN: SNOWMELT SYSTEM*	IMPLEMENT SNOWMELT SYSTEM IN SIDEWALK & CROSSWALKS (REFER TO PAGES 45-47, 56)	• IMPROVING ACCESSIBILITY THROUGHOUT THE CORRIDOR PROVIDES BETTER CONNECTIVITY AND REDUCES RISKS FOR HEALTH AND SAFETY	**$6,700,000**
	SUSTAINABLE DESIGN: SNOWMELT SYSTEM*	IMPLEMENT SNOWMELT SYSTEM IN SIDEWALKS & ROAD THROUGHOUT CORRIDOR (REFER TO PAGES 45-47, 56)	• IMPROVING ACCESSIBILITY THROUGHOUT THE CORRIDOR PROVIDES BETTER CONNECTIVITY AND REDUCES RISKS FOR HEALTH AND SAFETY	**$12,300,000**
	PUBLIC SPACE ENHANCEMENTS: MARINA PARK	PERMANENT INTERACTIVE WATER FEATURE (REFER TO PAGES 33-36)	• ACTIVATION AND PROGRAMMING OF DOWNTOWN PUBLIC REALM INCREASES DOWNTOWN VISITATION AND LENGTHENS STAYS	**$175,000-290,000**
	PUBLIC SPACE ENHANCEMENTS: POCKET PARKS	IMPLEMENT MAIN CONNECTORS, SECONDARY CONNECTORS & ASSOCIATED PARKS AS RECOMMENDED IN STUDY (REFER TO PAGES 37-44, 54)	• IMPROVING ACCESSIBILITY THROUGHOUT THE CORRIDOR PROVIDES BETTER CONNECTIVITY AND REDUCES RISKS FOR HEALTH AND SAFETY	**$1,200,000**

*Goal may require prerequisites such as planning or engineering documentation submittal and review / approval before implementing.


A
PROJECT APPENDIX
SMITH
The MUSIC AULT
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HAIR
GOODY'S
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APPENDIX **CONTENTS**

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CONNECTOR AND OBSERVATION PARK ALTERNATES

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TRAFFIC & PARKING STUDY

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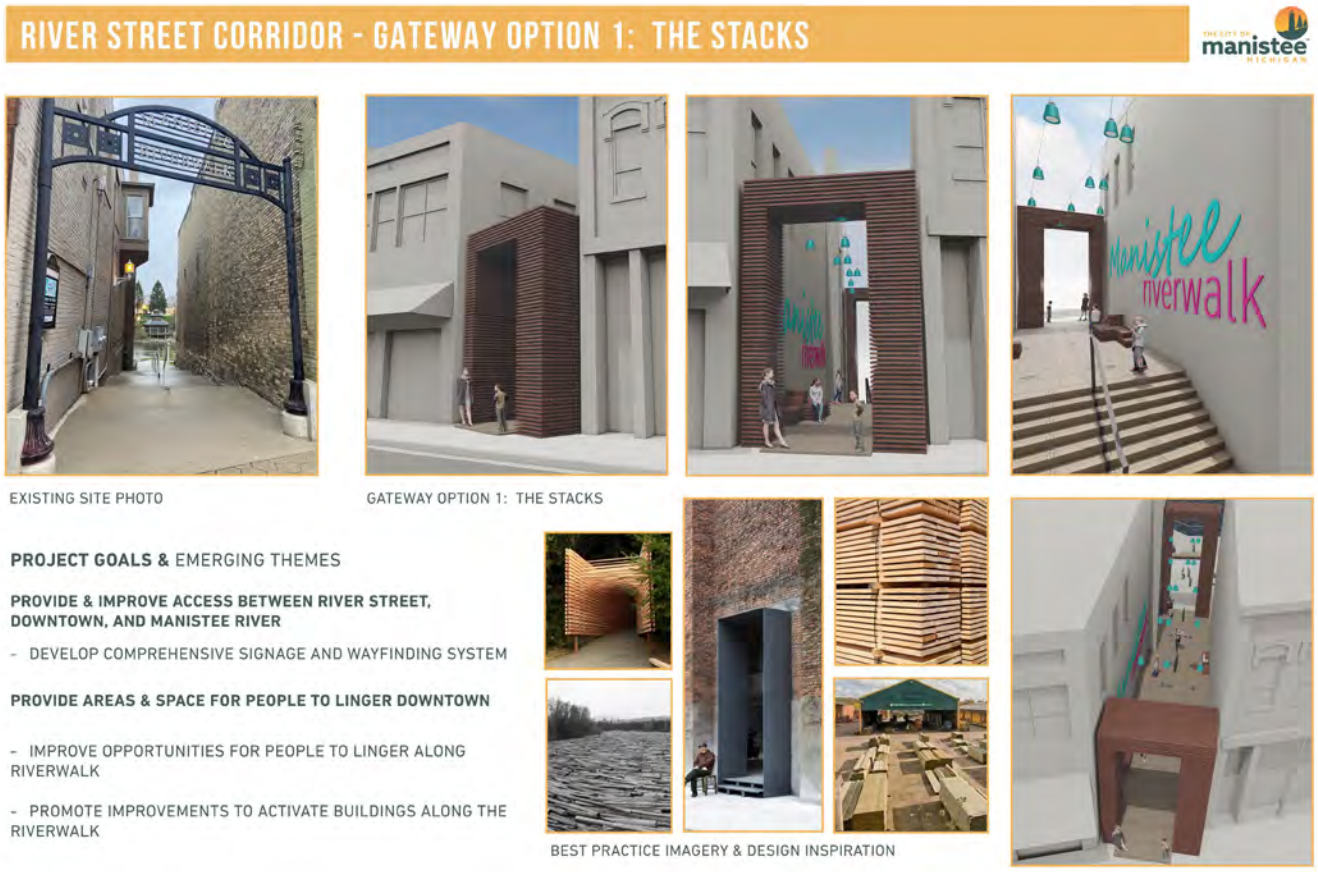
A3

UTILITY IMPROVEMENT RECOMMENDATIONS

PAGE 81

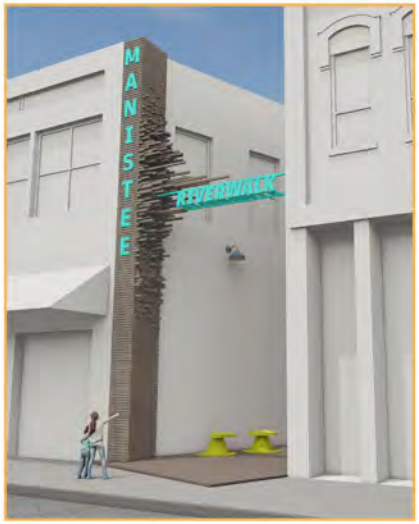
A1 CONNECTOR ALTERNATE CONCEPTS - THE STACKS

Prior to Engagement Session 2, MKSK came up with three different "Connector" concepts that helped identify and re-brand connections between River Street and the Riverwalk. On the backside of the "Main Connector" (near Greenbush Street), three different observation area park concepts were created that corresponded to each of the three "Connector" options. Ultimately, "The Pier" Connector concept and "The Wharf" observation area park were chosen as the preferred favorites by the public. The following pages show the other Connector and Observation Park areas designs chosen.



RIVER STREET CORRIDOR - GATEWAY OPTION 2: THE CHARGE

EXISTING SITE PHOTO



GATEWAY OPTION 2: THE CHARGE

PROJECT GOALS & EMERGING THEMES

PROVIDE & IMPROVE ACCESS BETWEEN RIVER STREET, DOWNTOWN, AND MANISTEE RIVER

- DEVELOP COMPREHENSIVE SIGNAGE AND WAYFINDING SYSTEM

PROVIDE AREAS & SPACE FOR PEOPLE TO LINGER DOWNTOWN

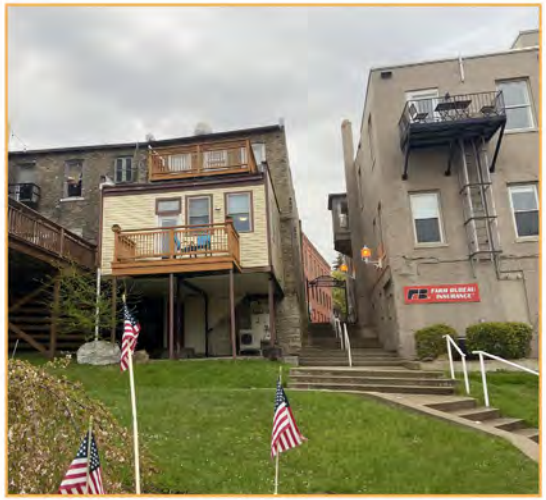
- IMPROVE OPPORTUNITIES FOR PEOPLE TO LINGER ALONG RIVERWALK

- PROMOTE IMPROVEMENTS TO ACTIVATE BUILDINGS ALONG THE RIVERWALK

BEST PRACTICE IMAGERY & DESIGN INSPIRATION

A1 OBSERVATION AREA ALTERNATE CONCEPTS - THE LANDING

RIVERWALK REDESIGN - OBSERVATION AREA 1: THE LANDING



EXISTING SITE PHOTO

PROJECT GOALS & EMERGING THEMES

GUIDE TO GROWTH TO SUPPORT LIVABILITY

- ACTIVATING THE CORRIDOR THROUGH INFILL WITHIN UNDERUTILIZED SPACES

PROVIDE AREAS & SPACE FOR PEOPLE TO LINGER DOWNTOWN

- CREATING A WELCOMING PUBLIC REALM WITH LANDSCAPING AND AMENITIES ALONG THE CORRIDOR & NEW PUBLIC SPACES THAT SUPPORT ADJACENT LAND USES.

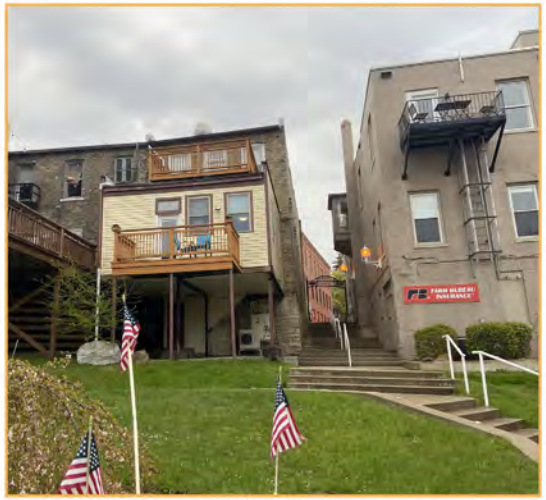
- IMPROVE OPPORTUNITIES FOR PEOPLE TO LINGER ALONG RIVERWALK

OBSERVATION AREA 1: THE LANDING

BEST PRACTICE IMAGERY & DESIGN INSPIRATION

OBSERVATION AREA ALTERNATE CONCEPTS - THE BANKS

RIVERWALK REDESIGN - OBSERVATION AREA 2: THE BANKS



EXISTING SITE PHOTO

OBSERVATION AREA 2: THE BANKS

PROJECT GOALS & EMERGING THEMES

GUIDE TO GROWTH TO SUPPORT LIVABILITY

- ACTIVATING THE CORRIDOR THROUGH INFILL WITHIN UNDERUTILIZED SPACES

PROVIDE AREAS & SPACE FOR PEOPLE TO LINGER DOWNTOWN

- CREATING A WELCOMING PUBLIC REALM WITH LANDSCAPING AND AMENITIES ALONG THE CORRIDOR & NEW PUBLIC SPACES THAT SUPPORT ADJACENT LAND USES.

- IMPROVE OPPORTUNITIES FOR PEOPLE TO LINGER ALONG RIVERWALK

BEST PRACTICE IMAGERY & DESIGN INSPIRATION

A1 OBSERVATION AREA - ALTERNATE ELEVATOR CONCEPTS

OBSERVATION AREA - ALTERNATE ELEVATOR CONCEPTS

A2 PARKING & TRAFFIC IMPACT STUDY - SUMMARY

The results of the existing conditions analysis indicates that all approaches and movements at the study intersections currently operate acceptably, at Level of Service C (driver speeds are near the FFS, and maneuvering requires driver focus and care) or better during the weekday and Saturday peak hours.

No additional mitigations are recommended to accommodate the Gateway Project by the Little River Holdings on River Street or Cypress Street.

River Street will operate well with either one-way or two-way operations. Existing geometry with two lanes of travel and parallel parking on each side of roadway would work for either option.

Temporary or long-term closure of River Street from Pine Street to Spruce Street with no negative impact to the level of service for traffic in the area of the marina.

The Study section of River Street can be considered for conversion from one-way to two-way operations. the conversion of the roadway to two-way would include the following intersection and roadway improvements:

- Upgrade the signalized intersection at River Street and Maple Street to accommodate two-way traffic volumes on River Street in the event two-way traffic is ever implemented.

- Update the pavement markings and signage to reflect two-way operations in the event two-way traffic is ever implemented.

The following pages are the parking & traffic impact summary. Refer to “Traffic Study Final” PDF for full 240 page report.

PARKING & TRAFFIC IMPACT STUDY - SUMMARY

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

MEMO

To:	**City of Manistee** **City of Manistee Downtown Development Authority**
From:	**Traffic Services Group** **Fleis & VandenBrink**
Date:	**November 22, 2023**
Re:	**River Street** **Manistee, Michigan** **Parking Study & Traffic Impact Study – Executive Summary**

1 INTRODUCTION

This memorandum presents the results of the parking evaluation performed by Fleis and VandenBrink (F&V) for the City of Manistee, Michigan. The parking study was performed as part of the Downtown Development Authority (DDA) project to develop an enhanced downtown streetscape.

1.1 EXECUTIVE SUMMARY

1.1.1 Parking study

The parking study was performed to evaluate existing parking demands and determine if additional parking capacity is necessary to accommodate future parking demands. Study limits are shown on **Figure 1**.

FIGURE 1: STUDY LOCATION

603 Bay Street, First Floor
Traverse City, MI 49684
P: 231.932.8600
F: 231.932.8700
www.fveng.com

A2 PARKING & TRAFFIC IMPACT STUDY - SUMMARY

1.1.2 Parking Analysis

A parking analysis is a two-step process:

- Calculate the parking *demand* based on existing parking volumes and projected parking generated by existing land uses.
- Determine if the parking supply (existing and/or proposed) is adequate to accommodate parking demand.
    - If parking supply is deficient, provide recommendations to accommodate parking demand.

A parking lot is typically designed to accommodate 85-95% occupancy, as vehicles search for open spaces, providing a buffer between supply and demand allows for easier turnover and less congestion. The entirety of downtown Manistee was evaluated using a recommended peak utilization of 85%.

Fleis & VandenBrink staff collected parking occupancy via manual counts on Saturday, June 17, 2023, between 11:00 AM to 3:00 PM. This was determined to be the peak hours for parking demand as identified by the DDA. The counts collected both on-street and off-street (public lots) parking volumes. The collected volumes were then compared to total available parking supply during each of the hours collected.

$$Parking\ Demand\ (\%) = \frac{Spaces\ Occupied}{Total\ Spaces}$$

1.1.3 Results and Key Findings

1.1.3.1 On-Street Parking Summary

- Highest hour for parking demand occurs between 1:00 PM and 2:00 PM.
- Highest on-street parking occupancy occurred on Greenbush Street (85 %) and River Street (83%).
- Lowest on-street parking occupancy occurred on Pine Street (0%) and 1st Steet (4%).

1.1.3.2 Off-Street Parking Summary

- Highest hour for parking demand occurs between 1:00 PM and 2:00 PM.
- Highest off-street parking occupancy occurred in the two parking lots adjacent to the River Street & Division Street intersection, with 85% and 100% occupancy.
- Lowest off-street parking occupancy occurred in the Water Street & Maple Street lot located in the southwest corner, at 19%.

Table 1: Existing Parking Utilization Summary

Analysis Factor	On-Street Parking	Off-Street Parking	Total Parking
Peak Parking Occupancy	209 spaces	162 spaces	371 spaces
Parking Supply	586 spaces	425 spaces	1,011 spaces
Peak Period Utilization	36%	38%	37%
Available Parking Spaces	377 spaces	263 spaces	640 spaces

Results of the analysis show the projected peak parking demands (on- & off-street) can be accommodated within the study area. The utilization rates are well below the recommended 85% maximum utilization rate. The proposed River Street Streetscape will have minimal impact on the overall parking supply.

PARKING & TRAFFIC IMPACT STUDY - SUMMARY

1.1.4 Recommendations

Recommendations of this study are as follows:

- The City should consider implementing paid parking along River Street and the adjacent downtown parking lots.
    - Paid parking can be managed through parking apps and pay stations. Paid parking would reduce the use of parking spaces by downtown employees and provide more spaces for visitors.
    - Paid on-street parking on River Street could only serve as a parking management tool, encouraging vehicles to park in the under-utilized public off-street parking lots for free.
    - Paid parking would provide additional revenue generation for the DDA for future enhancement projects.
    - The parking management system would allow the City to determine when paid parking is required. Therefore, allowing parking generation to occur during the peak season (April-October) and eliminate paid parking during the off-season.
- Additional wayfinding throughout the downtown is recommended to direct vehicles to the available off-street parking facilities.
    - Vehicles headed to River Street will look first for parking in the vicinity of their destination, when parking is not found, they will start searching for other available parking on the adjacent roadways.
    - Wayfinding will help direct visitors to the downtown to available parking areas outside of River Street.

1.2 TRAFFIC IMPACT STUDY

The traffic study was performed to evaluate the existing and future traffic operations along River Street, from Cypress Street (US-31) to Water Street. This section of River Street is proposed to be converted from one-way westbound to a two-way section. Additionally, the section of River Street between Pine Street and Water Street is proposed to become a pedestrian only facility. The study was performed to determine if any mitigation measures were required to accommodate these transitions. Study limits are shown on **Figure 1**

1.2.1 Traffic Analysis

Traffic analysis was completed under four conditions, existing one-way, existing two-way, future one-way and future two-way. In order to develop the eastbound traffic for the two-way conditions, the westbound traffic along Water Street at Spruce Street was mirrored and then carried throughout the study area. Additionally, the existing turning volumes onto westbound River Street were mirrored to represent vehicles turning onto the proposed eastbound River Street. The future conditions analysis was completed by growing the existing traffic volumes by 0.5% per year to the year 2030 and adding in the expected trips generated from the proposed Gateway PUD development. The 0.5% growth rate was selected by obtaining historic traffic counts in the study area and determining what the average annual growth was for those volumes. The *Highway Capacity Manual, 6th Edition* (HCM) provides descriptions of Level of Service (LOS) which indicate how well the overall intersection and individual movements operate, these range from LOS “A” to “F”. Typically, LOS D is considered acceptable, with LOS A representing minimal delay and LOS F indicating failing conditions.

1.2.2 Results and Key Findings

1.2.2.1 Existing Conditions (2023):

- The observed corridor peak periods used in the analysis occurred from 1:30 PM to 2:30 PM during the weekday and 12:30 PM to 1:30 PM on Saturday.
- The results of the Existing one-way conditions analysis indicates that all approaches and movements at the study intersections currently operate acceptably, at LOS C or better during the weekday and Saturday peak hours.

A2 PARKING & TRAFFIC IMPACT STUDY - SUMMARY

- The conversion of River Street to two-way operations with the Existing traffic volumes is expected to continue operating acceptably, at LOS C or better during the weekday and Saturday peak hours.

1.2.2.2 Background Conditions (2030):

- A conservative 0.5% annual background growth rate was utilized in order to project the existing traffic volumes to the buildout year of 2030.
- The proposed trip generation associated with the proposed Gateway PUD development was also considered in the background traffic growth through within the study network.

1.2.2.3 Future Conditions (2030):

- The existing traffic volumes were grown to 2030 for both the one-way and two-way River Street roadway conditions. Additionally, the trips generated by the proposed Gateway PUD were also added to the network and analysis for both roadway geometry conditions. This Future traffic volume was used to evaluate the Future Conditions analysis for both the one-way and two-way options on River Street.
- The results of the Future one-way conditions analysis indicates that all approaches and movements at the study intersections currently operate acceptably, at LOS C or better during the weekday and Saturday peak hours.
- The conversion River Street to two-way operations with the Future traffic volumes is expected to continue operating acceptably, at LOS C or better during the weekday and Saturday peak hours.
- The expected traffic volumes under two-way conditions would be able to accommodate occasional double-parked vehicles for loading and unloading. Additionally, parking spaces could be designated as short-term loading to help off-set any concerns.

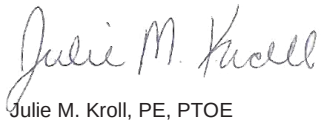
1.2.3 Recommendations

The recommendations of this Traffic Impact Study to evaluate the one-way to two-way conversion of River Street are as follows:

- The study section of River Street can be considered for conversion from one-way to two-way operations. The conversion of the roadway to two-way would include the following intersection and roadway improvements:
    - Upgrade the signalized intersection at River Street and Maple Street to accommodate two-way traffic volumes on River Street.
    - Update the pavement markings and signage to reflect two-way operations.
    - Convert the section of River Street between Water Street and Pine Street to a pedestrian only facility.
    - Consider designating existing parking spaces along River Street as short-term loading to help off-set concerns with occasional double-parked vehicles.

Any questions related to this memorandum, study, analysis, and results should be addressed to Fleis & VandenBrink.

Sincerely,
FLEIS & VANDENBRINK



Julie M. Kroll, PE, PTOE
Traffic Engineering, Group Manager, Associate

PARKING STUDY - SUMMARY

River Street on street parking - 85% of capacity for peak times with an emphasis on weekend vacation peaks. Surface parking is at approximately 38% capacity during same peak time window. Overall, on street parking for areas other than River Street are in similar ~38% capacity range. The combined surplus of downtown on and off street parking is in excess of 640 vehicles at peak times.

The proposed 'Gateway' hotel and condominium development will include a parking garage with 230+ parking spaces. The parking generation associated with this development is anticipated to be accommodated within the site, however, there is adequate parking capacity within the downtown to address latent or increased downtown parking demand associated with the proposed use(s).

The City should consider implementing paid parking along River Street and adjacent downtown parking lots.

- Paid parking can be managed through parking apps and pay stations. Paid parking would reduce the use of parking spaces by downtown employees and provide more spaces for visitors.
- Paid on-street parking on River Street could also serve as a parking management tool, encouraging vehicles to park in the under utilized public, off-street parking lots for free. Paid parking would provide additional revenue generation for the DDA for future enhancement projects.
- The parking management system would allow the City to determine when paid parking is required. Therefore, allowing parking generation to occur during peak season (April-October) and eliminate paid parking during the off-season.

Additional wayfinding throughout the downtown is recommended to direct vehicles to the available off-street parking facilities.

- Vehicles headed to River Street will look first for parking in the vicinity of their destination, when parking is not found, they will start searching for other available parking on the adjacent roadways.
- Wayfinding will help direct visitors to the downtown, to available parking areas outside of River Street.

The following pages are the parking summary. Refer to "Traffic Study Final" PDF for full 240 page report.

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

MEMO

To:	**City of Manistee** **City of Manistee Downtown Development Authority**
From:	**Traffic Services Group** **Fleis & VandenBrink**
Date:	**November 22, 2023**
Re:	**Downtown Parking Study** **City of Manistee**

1 INTRODUCTION

This memorandum presents the results of the parking evaluation performed by Fleis and VandenBrink (F&V) for the City of Manistee, Michigan. The parking study was performed as part of the Downtown Development Authority (DDA) project to develop an enhanced downtown streetscape. The parking study was performed to evaluate the existing parking demands and determine if additional parking capacity is necessary to accommodate future parking demands.

Study limits of the project included all of the on-street and off-street public parking within the Downtown Development Authority (DDA) and Maple Street public parking lot north of the Manistee River.
Study limits are shown on **Figure 1**.

Figure 1: Project Location Map

PARKING STUDY - SUMMARY

2 PARKING ANALYSIS

A parking analysis is a two-step process to determine the parking needs for a project. The first step is to calculate the projected parking *demand*. Parking demand calculations determine how much parking is generated by the existing land uses. Step two in the parking analysis process is to determine if the proposed parking supply is adequate to accommodate the parking demand; and if the parking supply is not adequate, provide recommendations to accommodate the parking demand.

A parking lot is typically designed to accommodate 85-95% occupancy, depending on several factors including land use(s), layout, parking management (self-parking, valet, etc.). parking lot design (surface lot vs. structure) and snow removal process. As vehicles search for open spaces or wait for vehicles to exit parking spaces, providing a buffer between supply and demand allows for easier turnover in the parking lot and less congestion. For parking facilities with a higher turnover (retail and restaurant), parking occupancy percentage should be lower, and for parking facilities with less turnover (office buildings and residential) the parking occupancy percentage can be higher. The entirety of the downtown was evaluated using a recommended peak utilization of **85%**.

F&V collected parking occupancy data during the following days/times in order to capture the peak parking occupancy throughout the study network.

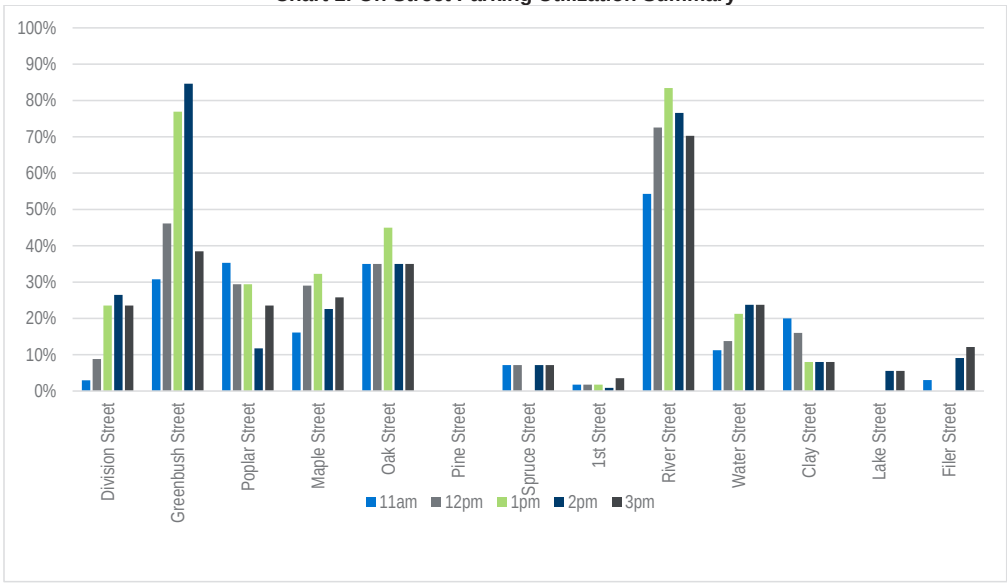
Day of Week	Date	Time
Saturday	June 17, 2023	11:00 AM to 3:00 PM

The parking data collection included the existing parking supply and the existing parking occupancy for both the on-street and off-street parking. Key findings of the parking occupancy analysis are summarized below.

2.1 ON-STREET PARKING SUMMARY

- Highest hour for parking demand occurs between 1:00 PM and 2:00 PM.
- The highest on-street parking occupancy occurred on Greenbush Street (85 %) and River Street (83%).
- The lowest on-street parking occupancy occurred on Pine Street (0%) and 1st Steet (4%).

Chart 1: On Street Parking Utilization Summary

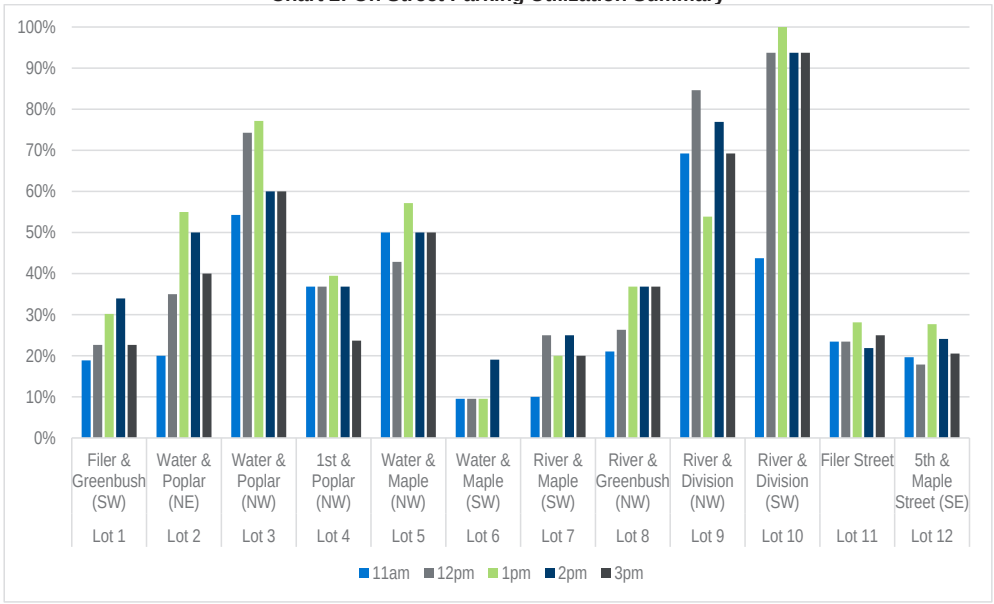


A2 PARKING STUDY - SUMMARY

2.2 Off-Street Parking Summary

- Highest hour for parking demand occurs between 1:00 PM and 2:00 PM.
- The highest off-street parking occupancy occurred in the two parking lots adjacent to the River Street & Division Street intersection, with 85% and 100% occupancy.
- The lowest off-street parking occupancy occurred in the Water Street & Maple Street lot located in the southwest corner, at 19%.

Chart 2: On Street Parking Utilization Summary



2.3 Total Downtown Parking Occupancy Summary

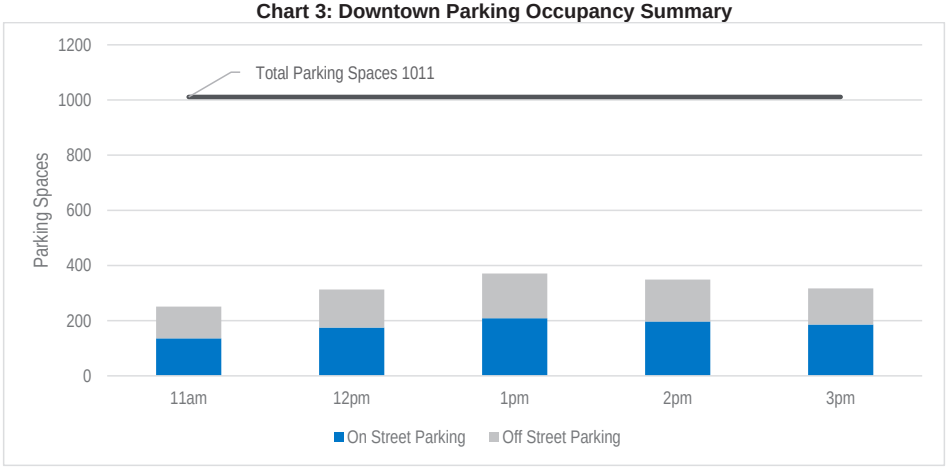
- The highest parking demand is on-street parking spaces.
- The highest demand for parking is in the vicinity of the River Street intersections with Division Street and Greenbush Street.
- The lowest demand for parking is south and west of the Water Steet and Maple Street intersection.
- The proposed 'Gateway" hotel and condominium development will include a parking garage with 230+ parking spaces. The parking generation associated with this development is anticipated to be accommodated within the site, however there is adequate parking capacity within the downtown to address latent or increased downtown parking demand associated with the proposed use(s).
- The proposed River Street Streetscape will have minimal impact on the overall parking supply and can be accommodated within the existing on-street and off-street parking supply within the downtown area.

Table 1: Existing Parking Utilization Summary

	On-Street Parking	Off-Street Parking	Total Parking
Peak Parking Occupancy	209 spaces	162 spaces	371 spaces
Parking Supply	586 spaces	425 spaces	1,011 spaces
Peak Period Utilization	36%	38%	37%
Available Parking Spaces	377 spaces	263 spaces	640 spaces

PARKING STUDY - SUMMARY

Chart 3: Downtown Parking Occupancy Summary



3 RECOMMENDATIONS

The highest on-street and off-street parking demand occurred on River Street. The further removed from River Street the parking demand decreased. The data showed that there is adequate parking in the downtown area, and the following recommendations include strategies to increase vehicle turnover on River Street and increase utilization of additional downtown parking areas.

- **The City should consider implementing paid parking along River Street and the adjacent downtown parking lots.**
  - Paid parking can be managed through parking apps and pay stations. Paid parking would reduce the use of parking spaces by downtown employees and provide more spaces for visitors.
  - Paid on-street parking on River Street could only serve as a parking management tool, encouraging vehicles to park in the under-utilized public off-street parking lots for free.
  - Paid parking would provide additional revenue generation for the DDA for future enhancement projects.
  - The parking management system would allow the City to determine when paid parking is required. Therefore, allowing parking generation to occur during the peak season (April-October) and eliminate paid parking during the off-season.
- **Additional wayfinding throughout the downtown is recommended to direct vehicles to the available off-street parking facilities.**
  - Vehicles headed to River Street will look first for parking in the vicinity of their destination, when parking is not found, they will start searching for other available parking on the adjacent roadways.
  - Wayfinding will help direct visitors to the downtown to available parking areas outside of River Street.

Any questions related to this memorandum, study, analyses, and results should be addressed to Fleis & VandenBrink.

Attached: Parking Data Summaries

SEA:GEH:jmk

A2 PARKING STUDY - SUMMARY

On-Street Parking North-South Streets	Parking Supply (Spaces)	Occupied Spaces per Hour 11am	12pm	1pm	2pm	3pm	Peak Occupancy (%)
Division Street	34	1	3	8	9	8	26%
Greenbush Street	13	4	6	10	11	5	85%
Poplar Street	17	6	5	5	2	4	35%
Maple Street	31	5	9	10	7	8	32%
Oak Street	20	7	7	9	7	7	45%
Pine Street	13	0	0	0	0	0	0%
Spruce Street	14	1	1	0	1	1	7%
Total	**142**	**24**	**31**	**42**	**37**	**33**	

On-Street Parking East-West Streets	Parking Supply (Spaces)	Occupied Spaces per Hour 11am	12pm	1pm	2pm	3pm	Peak Occupancy (%)
First Street	113	2	2	2	1	4	4%
River Street	175	95	127	146	134	123	83%
Water Street	80	9	11	17	19	19	24%
Clay Street	25	5	4	2	2	2	20%
Lake Street	18	0	0	0	1	1	6%
Filer Street	33	1	0	0	3	4	12%
Total	**444**	**112**	**144**	**167**	**160**	**153**	

Off-Street Parking Location	Parking Supply (Spaces)	Occupied Spaces per Hour 11am	12pm	1pm	2pm	3pm	Peak Occupancy (%)
Filer & Greenbush (SW)	53	10	12	16	18	12	34%
Water & Poplar (NE)	20	4	7	11	10	8	55%
Water & Poplar (NW)	35	19	26	27	21	21	77%
1st & Poplar (NW)	38	14	14	15	14	9	39%
Water & Maple (NW)	14	7	6	8	7	7	57%
Water & Maple (SW)	21	2	2	2	4	0	19%
River & Maple (SW)	20	2	5	4	5	4	25%
River & Greenbush (NW)	19	4	5	7	7	7	37%
River & Division (NW)	13	9	11	7	10	9	85%
River & Division (SW)	16	7	15	16	15	15	100%
Filer Street	64	15	15	18	14	16	28%
5th & Maple Street (SE)	112	22	20	31	27	23	28%
Total	**425**	**115**	**138**	**162**	**152**	**131**	

A3 UTILITY IMPROVEMENT RECOMMENDATIONS

Infrastructure Evaluation

As a part of the streetscape study, a cursory review of existing infrastructure within the study area was completed. At the time of the study, the City was completing a water system master plan to evaluate capital improvements for the water distribution system. The City previously completed a Sanitary, Asset Management, and Stormwater (SAW) project with Spicer Engineering, however detailed SAW reports were not available for review. SAW GIS mapping provided to F&V included pdf CCTV reports completed in 2016.

Recommended sanitary, water distribution, and stormwater improvements are summarized below, which are based on comments from Manistee staff and SAW GIS mapping.

Sanitary Sewer

Sanitary sewer within the study area consists of a 24-inch sanitary trunkline from US-31 to Spruce Street and parallel 6, 12, and 18-inch sanitary sewer from Poplar Street east to US-31. The SAW GIS indicates the sewer is VCP, however the CCTV reports state the sewer is non-reinforced concrete pipe. The City indicated that after separation of the storm and sanitary sewer was completed, the existing 24-inch sanitary sewer has adequate capacity to accommodate sewer flows.

The SAW GIS indicated several deficiencies with the 24-inch sanitary sewer including consistent debris and plugging along the entire length from US-31 to Spruce Street. In addition, there were indications of surface spalling, infiltration drippers, infiltration runners, and deposits and encrustation. Due to the age and pipe material and potential for continued pipe depredation, cleaning and lining the existing pipe is recommended. Because the City indicates that capacity is not a concern and there are no significant structural defects or sags, full replacement or pipe bursting would not be necessary.

CCTV reports for the existing 6, 12, and 18-inch sanitary sewer indicate the pipe was full of debris and several blockages were encountered resulting in abandoned CCTV survey. There were also numerous and frequent cracks along the entire length of 12 and 18-inch pipe, indicating the existing pipe is in poor condition. Assuming the 12 and 18-inch pipe also does not have capacity concerns, lining the sewer is recommended.

At the time sewer is lined, lining of existing manholes is also recommended to extend the useful life of the structures.

Estimated Cost, Sanitary Sewer Rehabilitation: $1,160,000

Note: Includes Engineering and 15% Contingency and Undeveloped Details

A3 UTILITY IMPROVEMENT RECOMMENDATIONS

Water Distribution

Similar to sanitary sewer, the City indicated that there are no known capacity concerns with the existing 8-inch watermain along River between US-31 and Spruce Street. However, due to the age of the existing 8-inch cast iron pipe, removing and replacing the water main and replacing existing water services, hydrants, and valves in advance or in parallel with streetscape construction is recommended. Replacing the pipe with ductile iron or PVC pipe and installing new water services would extend the useful life of the water main and reduce the risk of repairs which would require removal and replacement of newly installed streetscape features.

Estimated Cost, Watermain Rehabilitation: $1,310,000

Note: Includes Engineering and 15% Contingency and Undeveloped Details and assumes pavement, sidewalk, and curb removal and restoration is included in streetscape items

Storm Sewer

The City indicates that storm sewer was replaced with the prior streetscape and is in good condition. The only area of known flooding is located at Maple Street, which according to the City may be due to an undersized outfall. Further investigation and evaluation of the outfall is recommended and if required, replacement to accommodate stormwater from the Maple/River Street intersection. Due to the unknowns of the outfall, a cost is not included for improvements at this time.