



JEFFERSON QUARRY

Redevelopment Plan

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An aerial photograph of an industrial or commercial area, overlaid with a blue tint. The image shows a large, irregularly shaped cleared plot of land in the center, surrounded by various industrial buildings, parking lots, and roads. The text "INTRODUCTION" is prominently displayed in white, bold, uppercase letters across the middle of the image.

INTRODUCTION



WHY THIS PLAN?

In 2017, the City of Mankato was awarded a \$300,000 United States Environmental Protection Agency (EPA) Brownfield Community-Wide Assessment Grant to support inventory, assessment and planning activities for revitalization of brownfield sites throughout the city. Consistent with the objectives of the Brownfield CWA Grant, the City of Mankato (City) was approved to conduct an area-wide planning study, or small area plan, for a portion of the city with an identified brownfield site. The purpose of a small area plan is to conduct redevelopment planning for areas with brownfield sites that may be more difficult to develop than traditional greenfield development opportunities.

Jefferson Quarry is this study's area of focus. It is located east of the Minnesota River adjacent to the Germania Park neighborhood. The Quarry has reached the end of its useful life and the property was purchased by a private ownership group, Pentagon Materials, who intend to redevelop the property. The property is currently zoned and guided industrial, consistent with the prior use of the property. The City of Mankato and the property owner are supporting this small area planning process in order to understand the needs and desires of the surrounding neighborhood and broader community, and to begin the process of re-envisioning the future of the site.

Redevelopment of the Jefferson Quarry offers a unique and exciting opportunity for the City of Mankato to repurpose a large 54-acre site with riverfront access. While the property is privately owned, it nevertheless offers the opportunity to accomplish many city goals including increased river access and views, public open space, and more housing options. It offers the opportunity to compliment development happening in downtown with a unique well-designed riverfront neighborhood. The property owners and the City are aligned in the goal of creating a development that the City can be proud of and are partnering to achieve the highest and best use for the property.

What are Brownfields?

Brownfields are defined by the Environmental Protection Agency (EPA) as “a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.” Not only is the quarry a brownfield site, it is also challenged by the natural elements of topography and flooding, which has an impact on its redevelopment, as is further explored in the development concepts.

STUDY AREA



The study area includes the boundaries of the Jefferson Quarry that have been actively mined, as well as several remnant parcels owned by the property ownership group, as shown in red in Figure 1. The Jefferson Quarry dates back to the 1860s. In 1865, Adam Jefferson quarried rock for his new home which was constructed near what is now known as 8th Avenue, between Cleveland Street and Harper Street (house was removed in late 1970s when quarry expanded). Jefferson opened Jefferson Quarry in 1868 which he operated until his son took over around 1920.

The Jefferson Quarry was previously mined for dimension stone, construction aggregates and silica sand, but has not been active since 2017 when the City instructed the prior owner to cease all mining activities after a blast impacted the adjacent neighborhood. The study area does not include another quarry property to the southeast of Jefferson Quarry, referred to as the Mankato Quarry or MK-1, which is under separate private ownership.

Figure 1. Study Area



Project Boundary
Jefferson Quarry Redevelopment Plan

 Project Boundary
 Pentagon-Owned Parcels



Previous Studies

A previous visioning effort was conducted for the quarry property under the prior owner and community input gathered as a part of that effort. This updated redevelopment plan was meant to solicit new community input, and to ground redevelopment plans in current market realities.

The site has been the subject of several other studies for the purpose of understanding site conditions including:

- Phase I Environmental Site Assessment
- ALTA Survey
- Elevation Survey
- Ongoing traffic study on nearby Third Avenue

PUBLIC ENGAGEMENT

The City and the project team engaged with the community and key stakeholders to understand the perspectives and desires of the neighborhood and broader community relative to redevelopment of the site. This was done through three in-person public meetings and supplemented with engagement on the City's website during each phase of in-person engagement. Key considerations and issues about the site and surrounding area were discussed, and redevelopment concepts were developed and vetted through this phased approach. Each of the open houses were well attended with between 20-55 attendees each time, and several residents attending all three open houses. The project team also had robust engagement online, with hundreds of residents visiting the website and many comments offered during each phase of engagement.

Open House 1 & Online Engagement

The first open house was held at Grace Baptist Church in May 2022 with focused outreach to residents of the Germania Park Neighborhood. It was important to the City to hear the needs and desires of the neighborhood most impacted by the Jefferson Quarry and its redevelopment. This meeting consisted of a project overview presentation with information about the project context and rationale, Jefferson Quarry site and area conditions, and the market context that influences the opportunity for redevelopment. The project team asked residents to give their input on the strengths, weaknesses, opportunities and threats of redevelopment of the Quarry property. Residents were also asked to describe their vision for the future of the Jefferson Quarry, and specifically the neighborhood needs and broader community-wide needs that could be accommodated by redevelopment of the property. Online engagement mirrored the information given and questions asked at the in-person engagement event.



What we heard

Residents identified many inherent strengths of the property including its location adjacent to the river and its scenic potential, proximity to Highway 14, and the adjacent quiet neighborhood with no traffic after 6pm and lots of wildlife. Residents noted weaknesses of the property including limited access to the quarry site, lack of existing utilities, lack of connection between the Germania Park neighborhood and the Minnesota River bike trail, and the flooding potential of the property. Residents identified opportunities associated with development of the site, including adding a second access for the existing neighborhood, raising home values, access to the bike trail and more neighborhood retail. Identified redevelopment opportunities included a mountain bike trail system, wildlife preserve, small businesses, parks and open space, tourist destination and housing. Threats related to the new development included increased property taxes for existing residents, additional traffic through the neighborhood, flooding of the site, and the potential to alter the character of the neighborhood.



The project team also discussed neighborhood and community needs with residents. Residents identified the need for a safe railroad crossing or second access for the existing neighborhood south of the Quarry. Neighbors also were interested in a lookout area towards the Minnesota River, and a pedestrian connection to west and across the Minnesota River. Generally, neighbors would like their neighborhood to retain its character and affordability even if the Quarry property redevelops to new housing. Other community amenities of interest included access to the river, small restaurants or businesses with patio space, a public plaza or open space, mountain bike paths, trails and a place to attract tourists to Mankato.

Open House 2 & Online Engagement

The second open house invitees included members of the wider Mankato community in addition to Germania Park Neighborhood residents. The open house was held in late June 2022 outside at Columbia Park, which is located in the Germania Park Neighborhood and near the entrance to the Quarry property. The format of the meeting was open-house style with visual boards and staff at different stations to discuss issues and opportunities related to redevelopment. There was also a brief group discussion of preliminary redevelopment concepts and the project team addressed questions and concerns from residents. Stations included two preliminary redevelopment concepts, public and open space ideas, a large 3D-model of the site to facilitate discussion, and a board showing input from previous engagement opportunities both online and in-person. Online opportunities to give input were available on the City's website and the project and concepts were highlighted in the local news during this phase of engagement.



What we heard

Concern was expressed about the effect redevelopment of the Quarry could have on the existing neighborhood, including the impact of increased traffic on local roads and nearby county roads (3rd Ave), including intersections, increased property taxes, type of housing and people that would live in the Quarry. There was also excitement about the opportunities that redevelopment could offer including open space near the river, opportunity for mountain bike trails, affordable housing, and spaces for local businesses. A full summary of the phase 2 engagement can be found in the appendix.

Open House 3 & Online Engagement

The third open house was held in October 2022 at the Kato Ballroom and was open to the wider Mankato community, as well as residents in Germania Park Neighborhood. The third engagement opportunity was open-house style and exhibited boards with the redevelopment concepts presented at the previous meeting, as well as an updated more generalized land-use concept for the property. Additional boards showed a) how the concepts evolved based on input from the community, b) next steps and ways for the community to get involved in the redevelopment process, and c) potential opportunities for open space and water features, and a diagram and ideas for a plaza space near the river. The evolution of the concepts is discussed more thoroughly in subsequent sections of this study document.

What we heard

Generally, feedback was positive for the direction of redevelopment, although concerns about traffic and environmental degradation persisted. It was clarified at the engagement event that next steps would involve further study of these aspects, as well as more defined development concepts. A full summary of phase 3 engagement can be found in the appendix.

An aerial photograph of an industrial or commercial area, overlaid with a semi-transparent red filter. The image shows a large, irregularly shaped cleared plot of land in the center-left, surrounded by various industrial buildings, parking lots, and roads. A prominent road or highway runs diagonally across the middle of the image. The word "INVESTIGATION" is written in large, white, bold, sans-serif capital letters across the center of the image, partially obscuring the cleared land and the road below it.

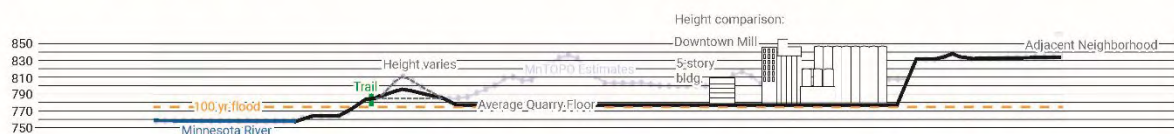
INVESTIGATION

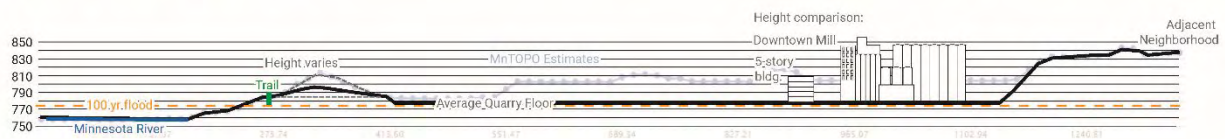
SITE AND AREA CONDITIONS

The Jefferson Quarry has complex site and area conditions which complicate redevelopment considerations related to access, utilities, foundations, flooding, environmental protection, etc. This section summarizes the site and area conditions investigated for this high-level study. Further due diligence and site condition analysis will be required prior to and as part of redevelopment projects. This analysis supports a high level understanding of the development context sufficient to support an area plan that reflects real world conditions.

Natural Features and Topography

There is varied topography across the site, including the high walls that surround the north and east edges of the quarry. The west edge of the site is bordered by the Minnesota River, which experiences a great deal of variation in water levels throughout the year. The topographical conditions are both an opportunity and a challenge. For example, the high walls offer great views, but efforts must also be taken to protect development both below and above from instability and falling rock. The topography of the site is illustrated in the cross section diagrams below. The project team also created a 3D model of the site to facilitate discussions with residents.





Flood Protection

Flooding is a potential challenge for the site. Much of the site is currently within the FEMA designated 100-year floodplain, which is located at about 774 to 776 MSL (mean sea level) in this part of the Minnesota River. The lowest floor of a structure is required to be 1 foot above this high-water level and may benefit from further flood protection given the increased frequency and severity of flood events. There are two ways to protect the site from flooding:

1. The existing bike trail, which is located between the site and the Minnesota River at about 781 to 785 MSL, could be improved to serve as a certified levy. That would protect the quarry floor, which could remain below the 100-foot flood level. Creating the certified levee may entail enhancing, adding to or replacing parts of the existing embankment so that it includes a layer of clay soils (clay core), ensuring that the existing embankment does not exceed a 3:1 grade, and situating the top of the levy at least five feet above the 100-year flood level. Once built, a certified levee needs ongoing inspection and maintenance by a certified engineer in perpetuity. Development that is built behind a certified levee, at an elevation that is lower than the 100-foot flood level, would require flood insurance—which would represent an ongoing cost to the property owners. Additionally, the clay material to construct the levy is costly, and may be cost prohibitive for new development.

2. The development area, between the bike trail and the limestone walls, can be elevated through the addition of new soils to an elevation higher than the 100-foot flood level. If the land is elevated above the 100-year flood level, no improvements would need to be made to the existing river embankment and bike path. The site currently is between 761 MSL at its lowest point, which is below the level of groundwater on the site. Most of the site above groundwater level is between 773 and 783 MSL, only slightly below where it needs to be. This flood protection is much simpler, and it reduces the development challenge in several ways. It decreases the elevation difference between the top of the limestone walls and the bottom of the quarry, improving the ease of road access. It reduces the need for a sanitary sewer lift station. And it eliminate ongoing expenses related to levee inspections and flood insurance.

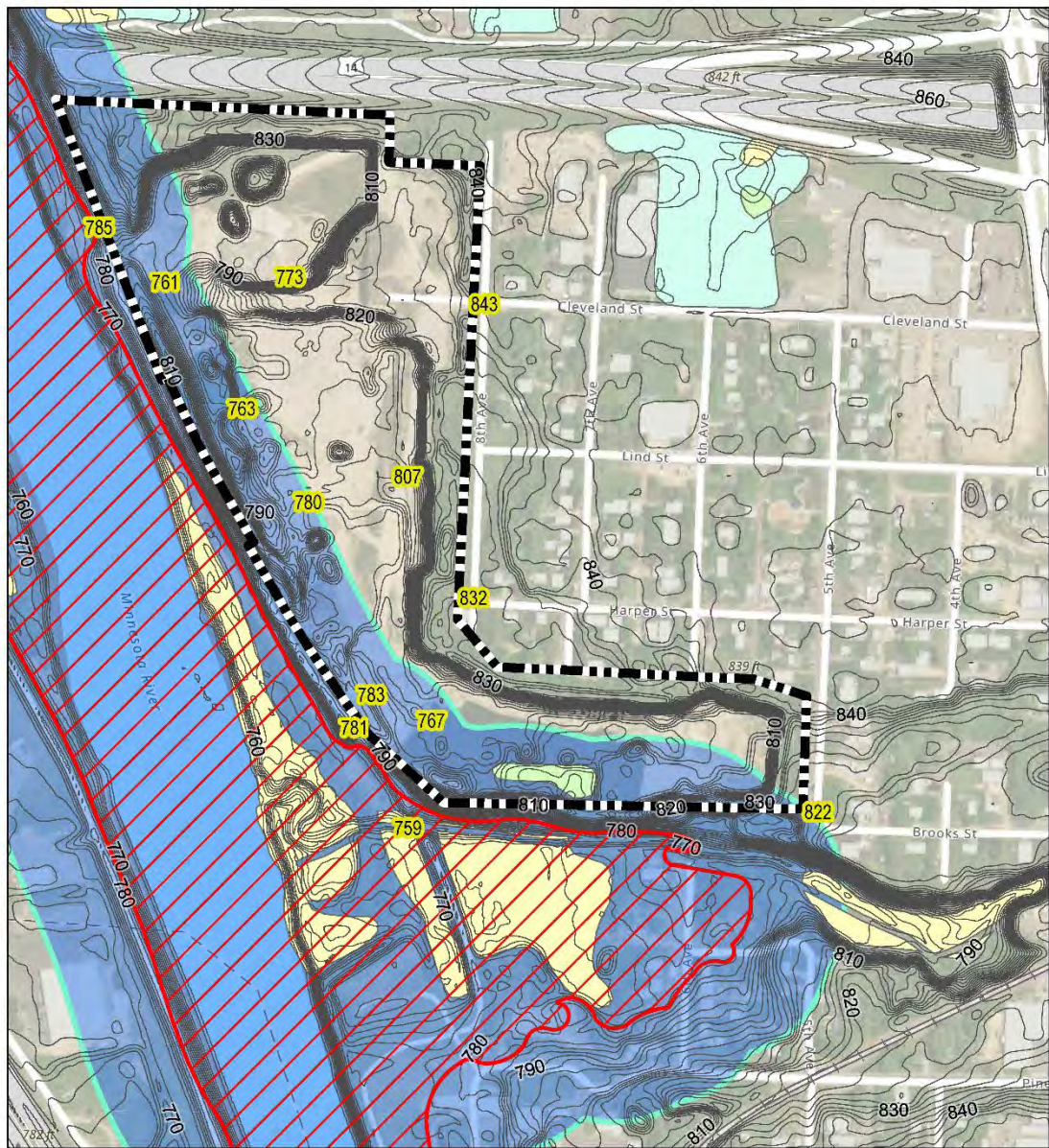
The City and the property owner agree that the second option is preferable.

Water Features on Site

The groundwater that flows below the site presents an opportunity for additional water features. Because the groundwater is located below the floodplain, and the site will be filled to a higher elevation, the location of water features throughout the site is flexible. There is an NWI wetland in the southern lobe of the site and a public water that flows south of the site, as shown in Figure 2, which will require additional regulatory processes and protection.



Figure 2. Water Features



Topography & Water-Related Features

Jefferson Quarry Redevelopment Plan

Project Boundary

Elevation Shot (December 2021)

Estimated 100yr Flood Zone (Elevation 775)

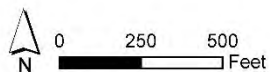
Shoreland Overlay

Wetland Classification

Palustrine emergent wetland

Palustrine forested wetland

Palustrine scrub-shrub wetland

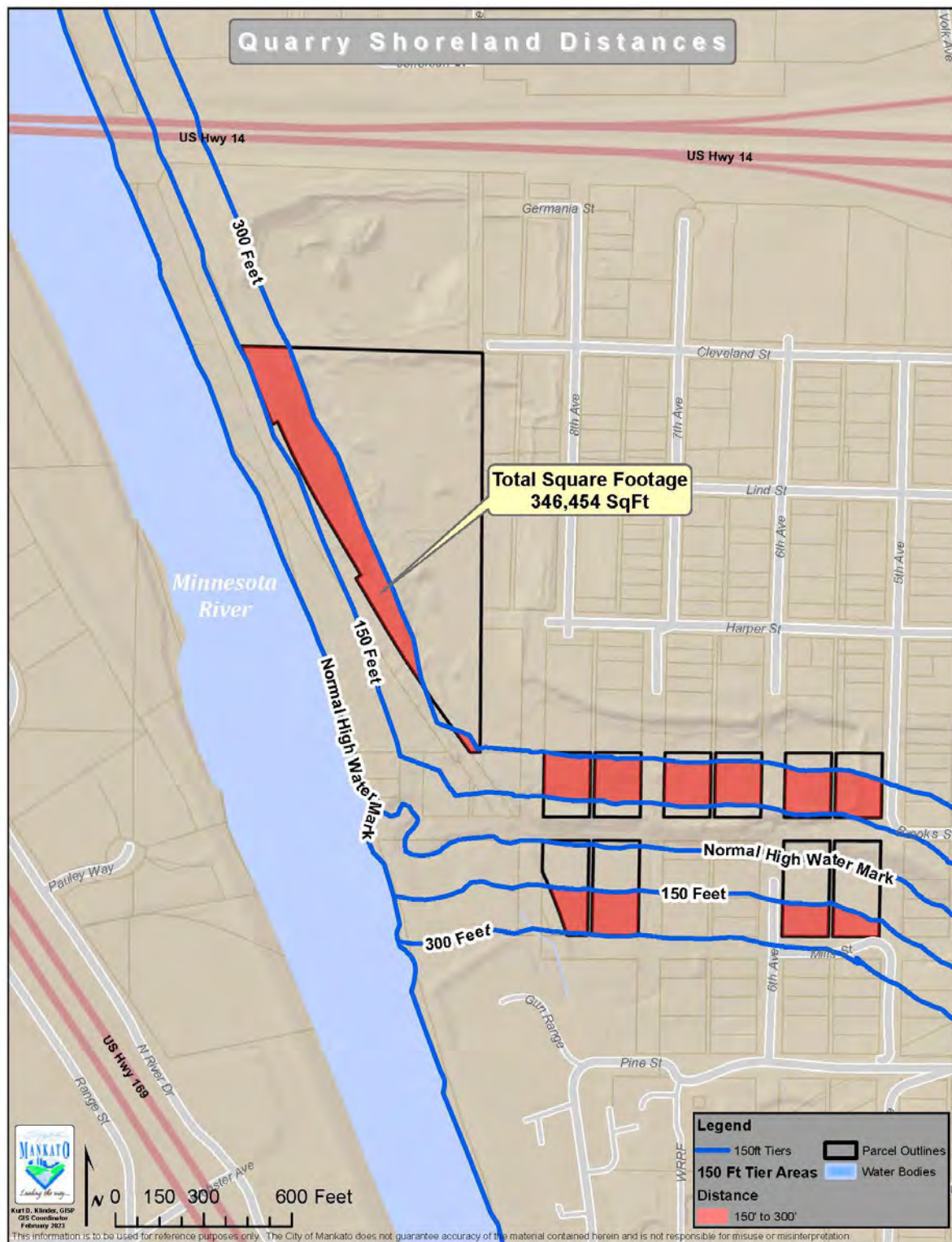


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Figure 3 shows the area of the Quarry property within the Shoreland District. The map shows that roughly 350,000 square feet of the area within the parcel boundaries is within the shoreland overlay and will be regulated further by the City and the MnDNR.

Figure 3. Jefferson Quarry Shoreland Distances





Geotech/Fill

As noted above, raising the site elevation meets the dual purposes of flood prevention and allowing for sanitary sewer service to the site without a lift station. Some additional fill may be desired to allow for the whole site to be graded gradually toward the river.

The fill does not need to be select grading material, but also cannot be organic material. With proper selection of fill materials, the property owner can provide adequate structural support to new development. The site will need additional geotechnical investigation to determine bedrock level and structural integrity of the site. From a cost perspective, it likely makes sense to fill the site in stages, as cost-effective fill materials become available, likely beginning north to south from the primary access point.

Site Access

The Jefferson Quarry site is currently accessible via Cleveland St, as shown in Figure 4. Cleveland Avenue carries truck traffic to the site as well as serving the single family neighborhood and the industrial properties adjacent to US Highway 14. No roads provide access to the Quarry floor. Access is provided via dirt driveways built by the property owners for purposes of removing quarry materials.


Highway 14 borders the site to the north and is elevated above the high walls on that side of the site. The nearest exit from Highway 14 is on Third Avenue. Access to the site from Highway 14 is challenged by elevation as well as the relatively short distance to the Third Avenue exit. Access to Highway 14 from the site would not be allowed due to MnDOT access management standards.

There is an existing high quality bike trail along the Minnesota River that borders the site. The bike trail is designated by the MnDNR as regionally significant and may be the future corridor of a state trail.

Considerations for permanent site access encompass bike and pedestrian access in addition to vehicle access. New development in the Jefferson Quarry will require two points of access.

Considerations for each access include:

- Cleveland Avenue. Access to the new development from Cleveland Avenue will add a significant amount of traffic to Cleveland Avenue, relative to the limited traffic it experiences currently. It will also put additional pressure on the existing intersection at Cleveland and Third Avenue. Third Avenue is a divided road at this point, with left and right turn lanes on Cleveland allowing all turning movements. Access from east-bound Cleveland onto 3rd Ave is controlled by a stop sign. Average traffic volumes of 6,100 ADT were counted on this stretch of 3rd Ave in 2018.
 - There are concerns about intersection capacity in its current format, especially given its proximity to the freeway interchange. This should be studied in the ongoing Third Avenue study.
 - A signalized intersection would not be allowed under current intersection spacing rules. One might be able to make the case for an exception, given that the first cross street that is far enough from the highway interchange is a single-family residential street.
 - A roundabout might be supported by MNDOT and the County and could be a good solution for retaining Cleveland as the primary access to the businesses along the highway, as well as the new development.

- 
- A second road access to the Jefferson Quarry development site could be provided on Sixth Avenue or Brooks Street, as shown in the development concepts. A third option is possible via Madison Avenue through the MK1 Quarry. This is shown as an illustrative roadway connection in the development concepts, but was not thoroughly explored in this study.
 - A connection from 6th Ave access would also improve current conditions for the existing neighborhood to the south of the Quarry, which is challenged by train backups, effectively cutting off the neighborhood from emergency vehicles when trains are present. Road access from 6th Ave would come into the development site at a similar level to the desired development elevation. 6th Ave connects back to 3rd Ave via Pine Street. The intersection at Pine Street and 3rd Ave is currently controlled by a two way stop sign configuration and traffic does not stop on 3rd Avenue. Potential intersection improvements at Pine Street and 3rd Ave would be explored in this scenario. Pine Street is a preferred option because it is less residential due to the Water Resource Recovery Facility (WRRF).
 - Brooks St is appropriately spaced from Highway 14 to support a signalized intersection, but site access via Brooks Street would impact existing single-family homes. Brooks St is not sufficient in capacity to support a major shift in traffic. It would require an improvement to the street, which was just reconstructed 2 years ago and has some significant construction challenges. This option is not supported by the City due to long-term operational issues.

The existing streets serving the Germania Park neighborhood are known to need improvement. Brooks Street was recently reconstructed, and other improvements are planned in the coming years.

The Germania Park neighborhood currently lacks pedestrian or bicycle access to the Minnesota River, or the bicycle trail along the river, despite how close it is situated to the river. This study prioritizes potential trail or sidewalk access to the trail from existing neighborhoods.

Figure 4. Site Access



Site Access

Jefferson Quarry Redevelopment Plan

- Project Boundary
- Roads
- Railroad
- Trails
- Sidewalks



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Utilities

As shown in Figure 5, utilities will need to be extended to serve the property. While further analysis will be needed by both the property owner and the city, some initial considerations were compiled for this study to ensure feasibility.

Sanitary Sewer

The sanitary main at the south end of the Mankato water facility is at about 758 feet deep. The required slope of a sanitary sewer pipe is gradual - 0.4% for an 8" pipe and 0.28% for a 10 inch pipe. Given the roughly 3,000-foot distance from the treatment facility to the north end of the site, these parameters support sanitary sewer flow to the entire site at the proposed grades. At the south end of the site the sewer pipes would need to be routed under a ridge and Thompson Creek to reach the sanitary main.

Stormwater

The site has unique opportunities for stormwater management due to its nature and historical uses. Stormwater retention features would need to account for potential flooding, and would be explored and confirmed during environmental review.

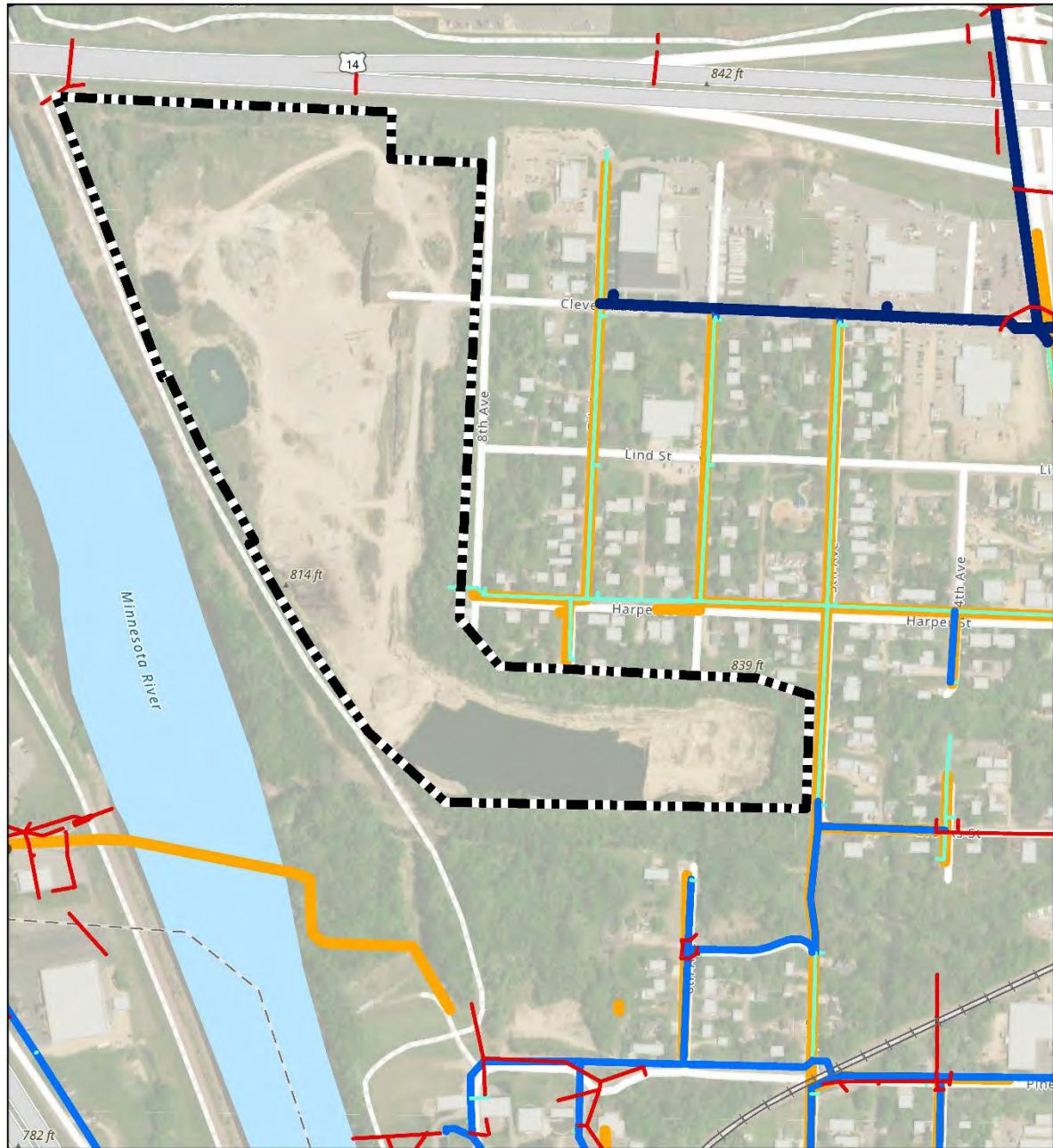
Water Service

The site will need a loop water service system to meet fire flows for the planned higher density housing. This may require a larger improvement to the system and potentially a connection under Highway 14 from 9th Ave to the north.

Other Utilities

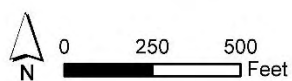
The provision of utility infrastructure is a costly element of developing in a previously undeveloped area. It will be the subject of negotiation around future development proposals, and the focus of future City of Mankato budget decisions. With that said, City staff have not identified additional impediments to providing water, electrical and other utility infrastructure to the site.

Figure 5. Utilities



Utilities

Jefferson Quarry Redevelopment Plan



Project Boundary

Watermain

Pipe Diameter (inches)

6

8

10

12

Storm Main

Sanitary Main

Pipe Diameter (inches)

6

8

10

12

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Land Use/Zoning

This study is intended to provide a basis for updating the Future Land Use of the site, which provides high-level guidance for how a site can be developed. Currently the Jefferson Quarry site is guided a combination of heavy industrial, light industrial and medium density residential, as shown in Figure 6. Development concepts later in this plan offer future land uses for consideration.

Zoning of the site will also need to be updated, based on updated Future Land Use guidance. This may be initiated by the property owner or developers after the future land use map has been formally adopted by the Mankato City Council. The existing zoning of the site reflects current and past uses of heavy and planned industrial, as shown in Figure 7.

Figure 6. Future Land Use (City of Mankato Land Use Plan)

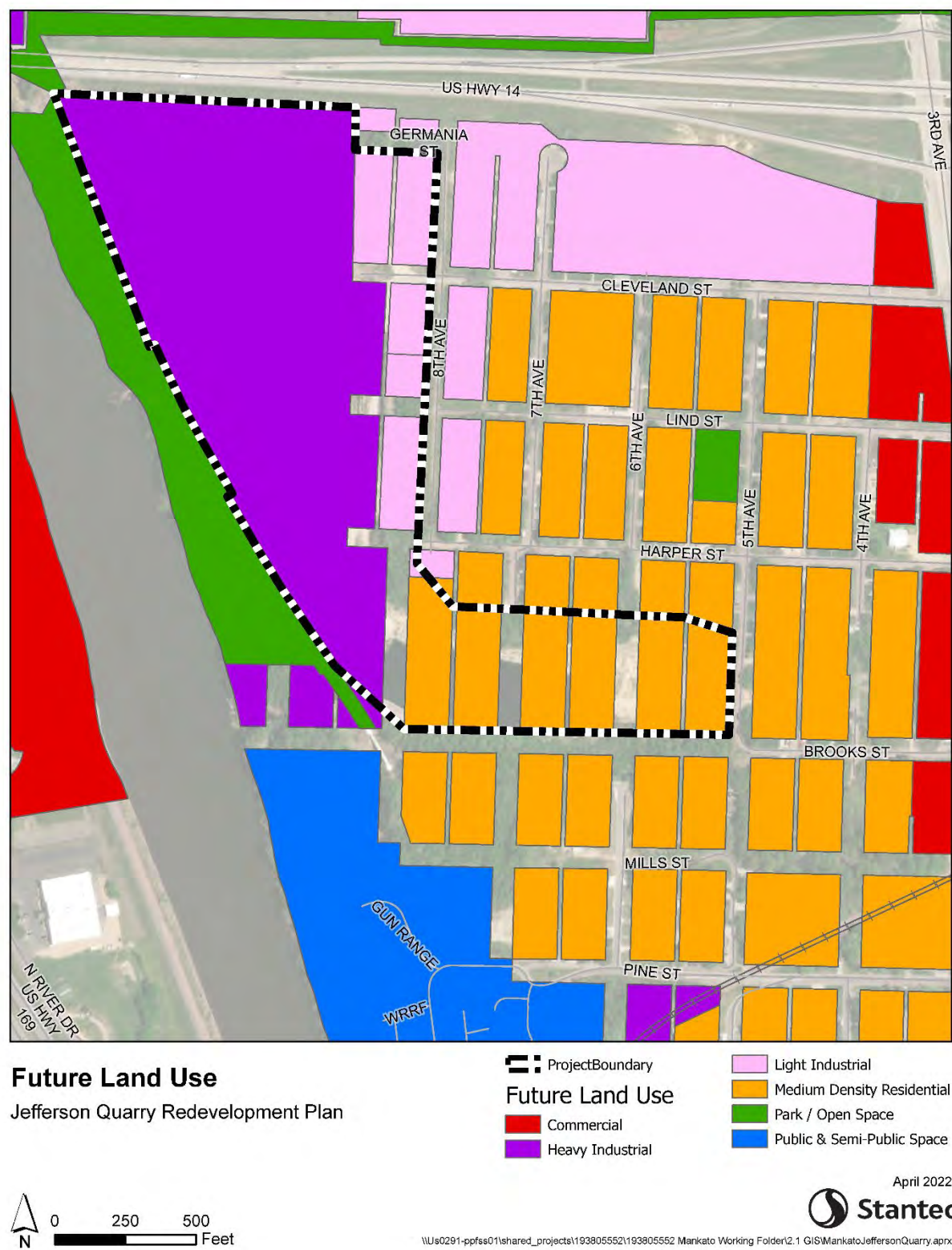
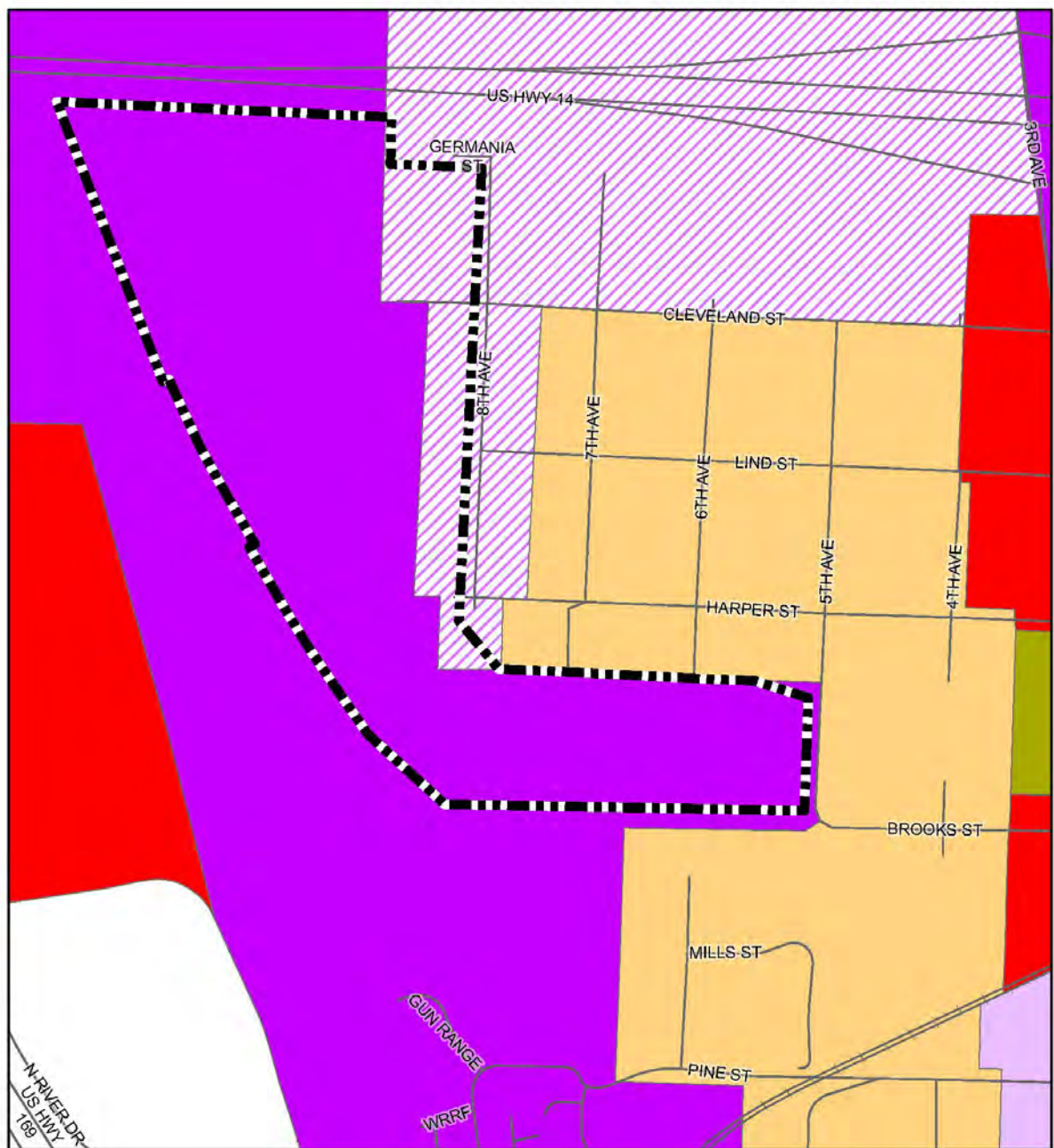


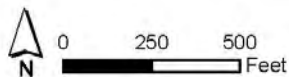
Figure 7. Zoning



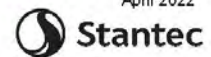
Zoning

Jefferson Quarry Redevelopment Plan

Project Boundary	R-3 Limited Multiple Dwelling	B-1 Community Business District
Zoning	R-4 Multiple Dwelling	B-2 General Business District
Transition District	R-T Residential Transition	B-3 Highway Business District
R-1 One-Family Dwelling	OR Office Residential / O Office	PI Planned Industrial
R-2 One & Two Family Dwelling	CBD-C Central Business District Core	M-1 Light Industrial
	CBD-F Central Business District Fringe	M-2 Heavy Industrial



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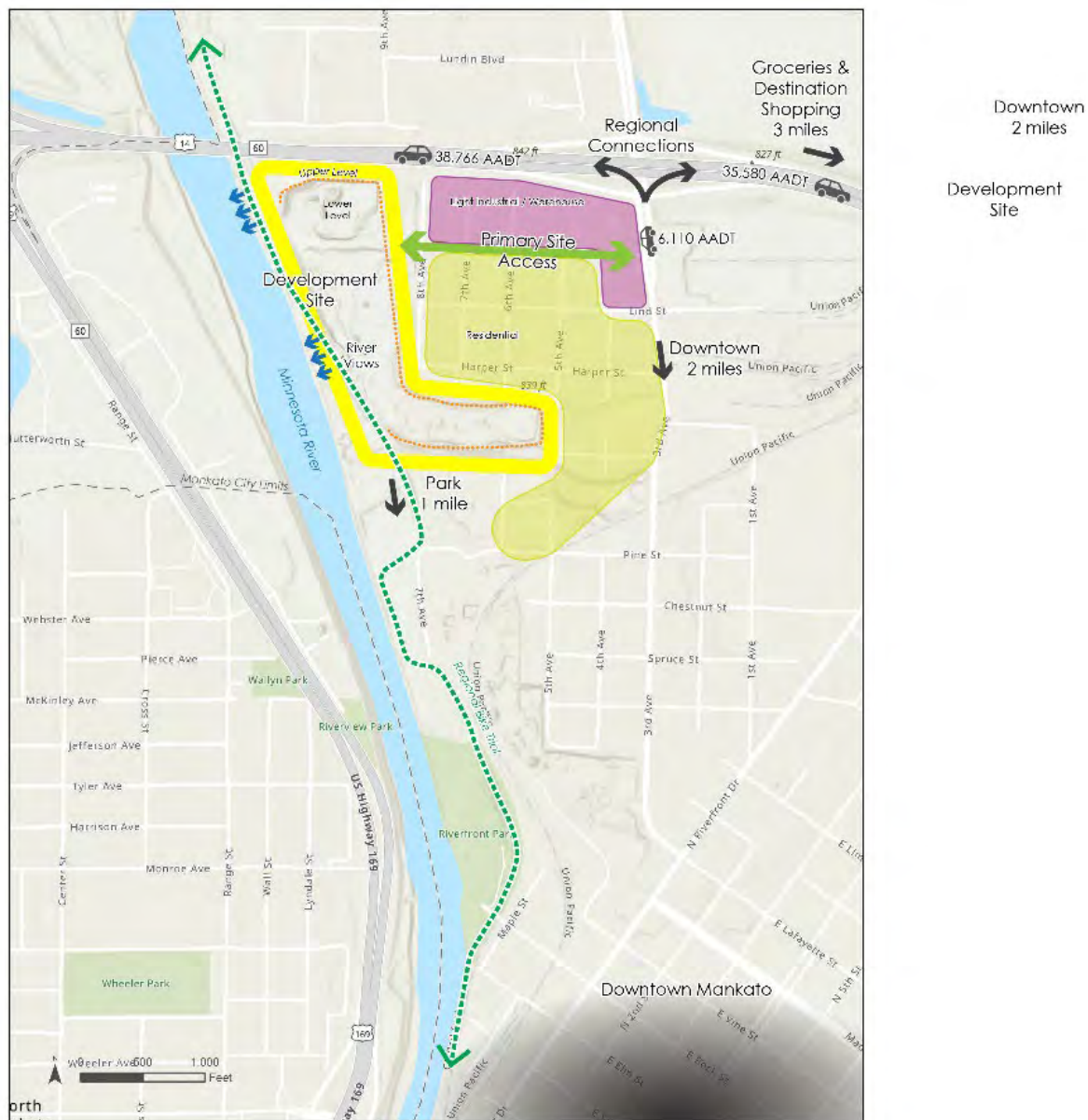


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MARKET CONTEXT

The Jefferson Quarry site has many attractive characteristics for development. Exhibit 1 is a map of the site and surrounding areas. It includes many of the attributes that would be attractive to developers—its river frontage, the regional bike trail, its proximity to the regional transportation network. It is out the way for conventional retail stores, but that isolation may be attractive to the residents of the new neighborhood—who would also appreciate the dramatic cliff faces.

Exhibit 1. Market Context Map

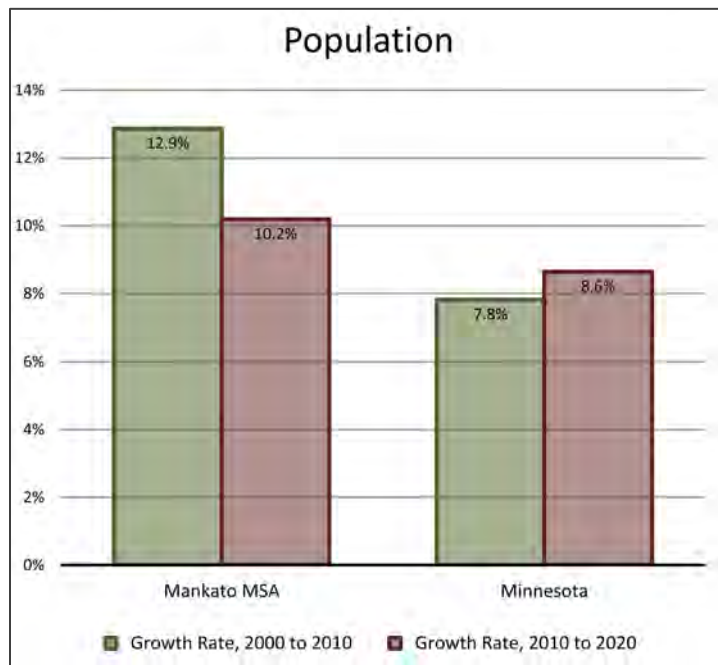


Source: Stantec

Growth Drivers

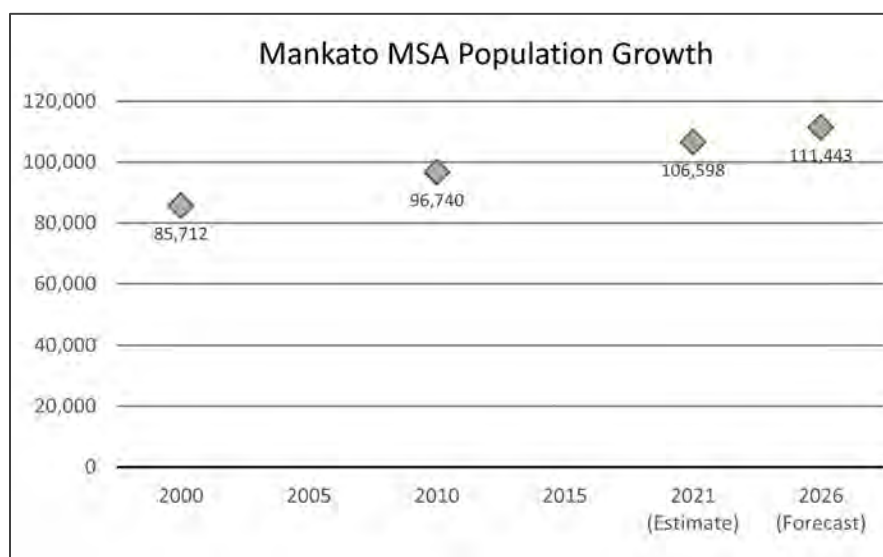
Population and employment growth drive demand for new development. Exhibits 2 and 3 show Mankato's continued strong growth over the past two decades.

Exhibit 2 Population Growth by Decade – Mankato MSA and State of Minnesota



Source: ESRI Business Analyst

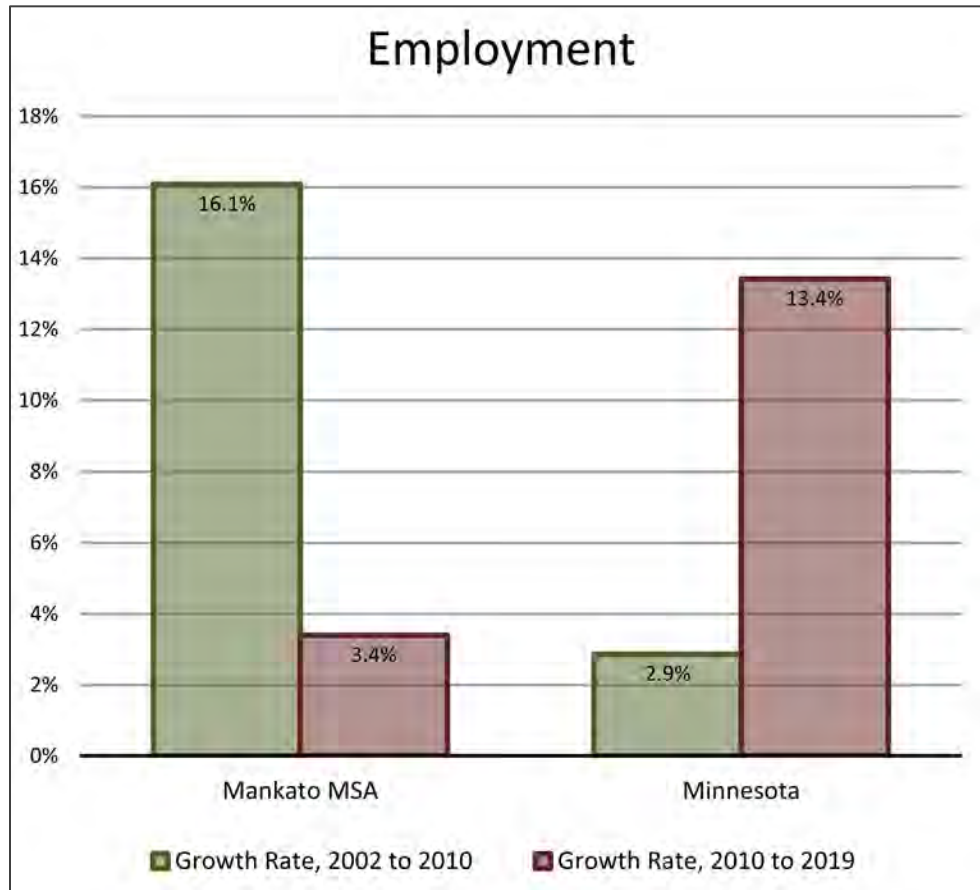
Exhibit 3 Mankato MSA Population Growth and Forecast



Source: ESRI Business Analyst

Exhibit 4 shows the rate of job growth over the past two decades.

Exhibit 4 Employment Growth by Decade – Mankato MSA and State of Minnesota

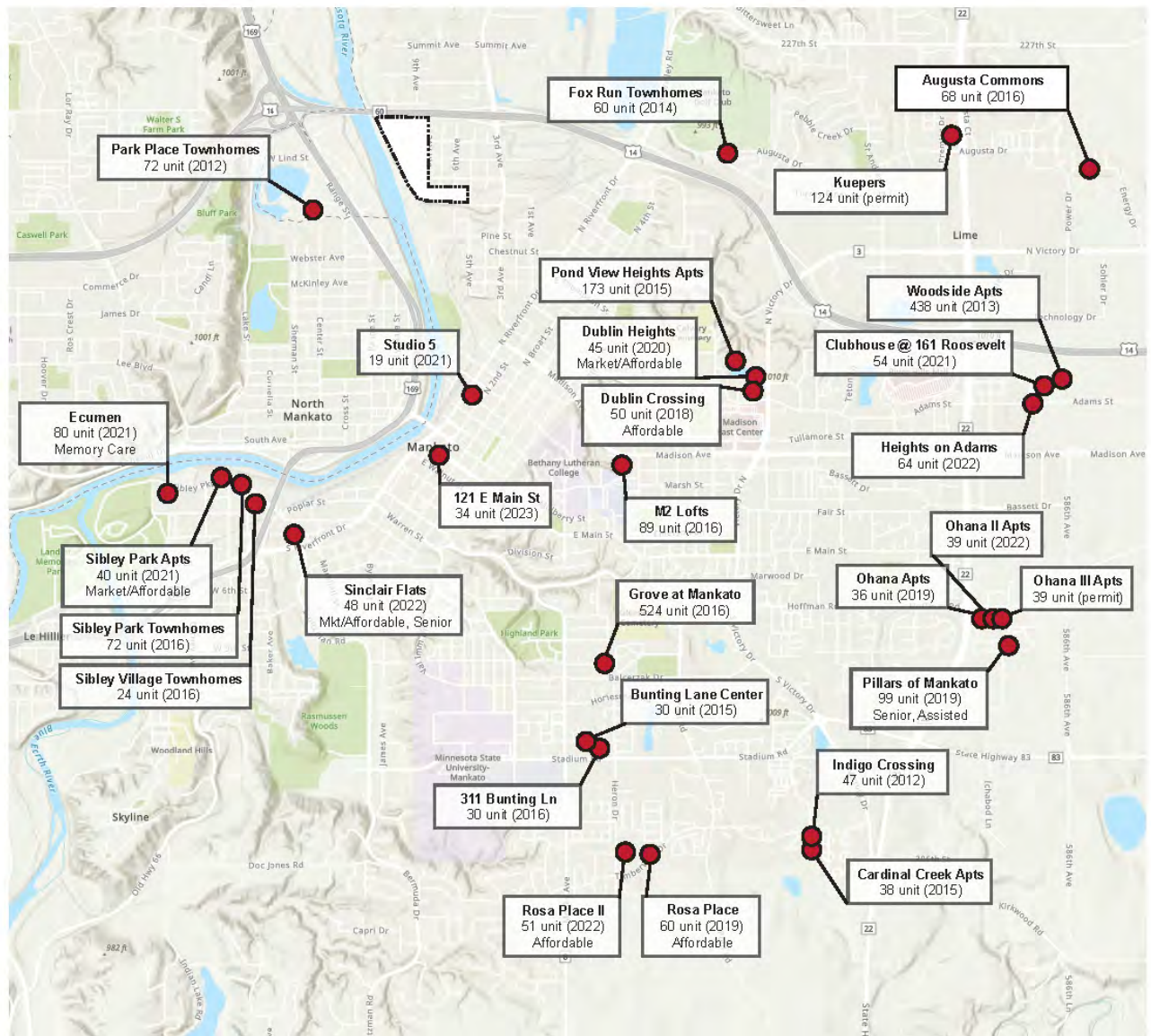


Source: ESRI Business Analyst

Housing Development Context

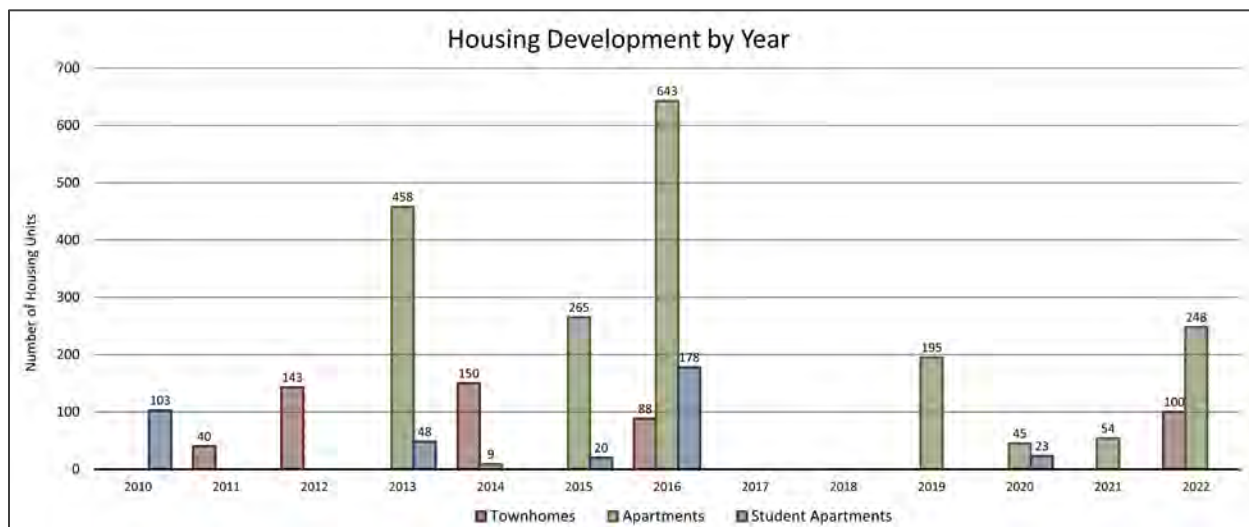
Mankato has seen robust housing growth in recent years. Exhibit 5 is a map of the many housing developments that have occurred in Mankato and North Mankato since 2010. Exhibit 6 shows the cumulative number of new housing units by year.

Exhibit 5. Multifamily Housing Developed Since 2010



Source: Costar

Exhibit 6. Multifamily Housing Units Developed Since 2010, by Year



Source: Costar

Almost all of the new multifamily housing developments are being built in one of three formats—apartment buildings with structured parking, apartment buildings with surface parking, or townhomes with garage parking.

Key findings. Because of the strength of the housing market and the attractive characteristics of the site for housing, the strongest demand for the site is expected to be for housing development. The site is suitable for the entire range of housing types that are being built in Mankato presently, including luxury apartments, workforce housing, and age-restricted senior housing. In terms of scale, housing formats ranging from townhomes and smaller apartment buildings to higher midrise buildings would be viable.

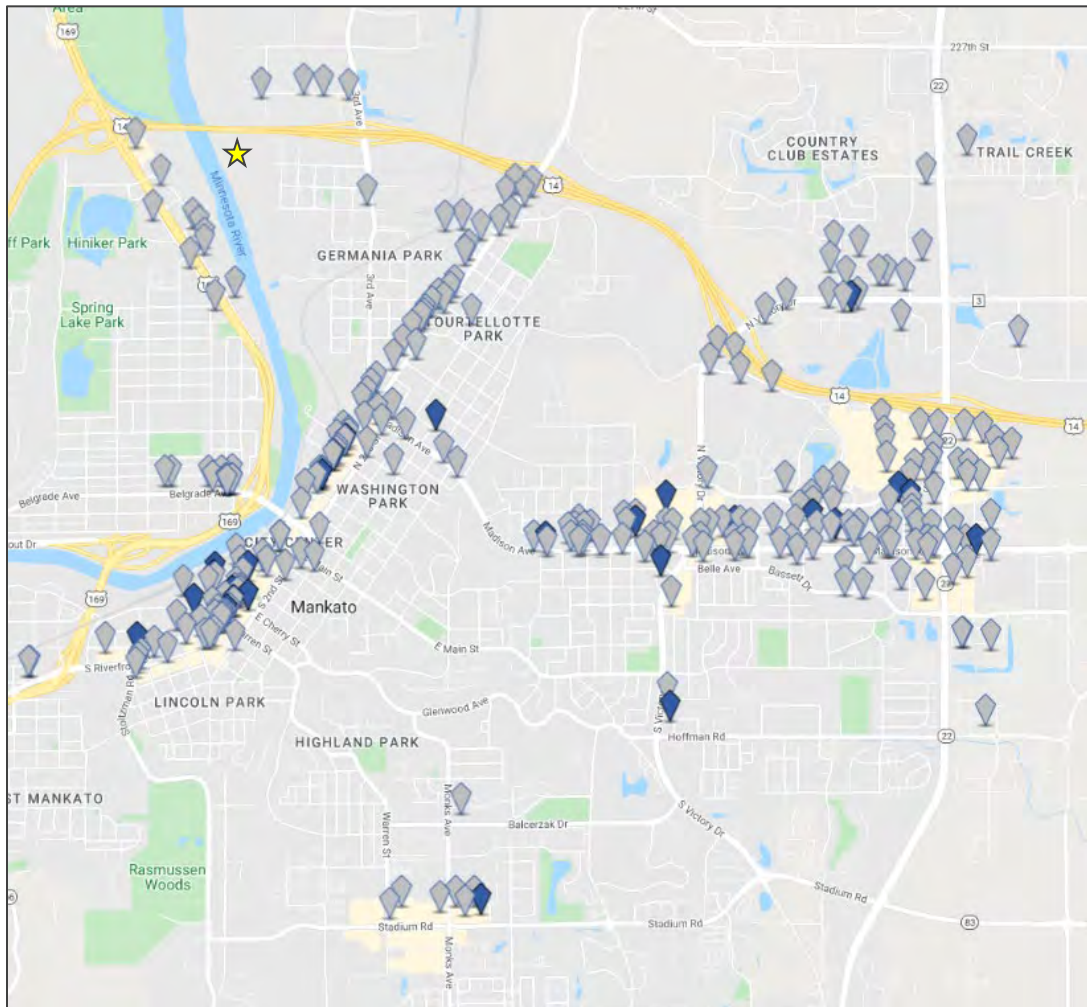
Retail Development Context

Existing retail properties in Mankato are illustrated in Exhibit 7. The Jefferson Quarry site is marked with a star. The concentrations of retail development in Mankato are easy to see. They are primarily at and around the mall site, downtown, and along Riverfront Drive. There is little retail offered near the Jefferson Quarry site, even as close as 3rd Avenue.

Conventional retail stores seek out visible locations along well traveled corridors. Retail establishments that are situated in the Jefferson Quarry site would have some customer traffic from those who live in the nearby new housing, but the vast majority of customers would be from outside the quarry site and would be making a single purpose trip to that establishment. Some special businesses can generate the level of excitement that is needed to be viable in a destination location of this kind. But they are limited.

“Experience” retail establishments like restaurants or brewpubs are most likely to be successful in a destination have the greatest chance of success in a destination location, because people are more likely to go out of their way for an experience than for a routine shopping trip. The success of a small experience retail district in the Jefferson Quarry site can be enhanced by the creation of a complementary high quality public space that can be part of the attraction. Patio seating overlooking the river, for example, would be a rare and desirable commodity in Mankato.

Exhibit 7. Existing Retail Properties in Mankato and North Mankato



Source: Costar

An aerial photograph of a suburban area, overlaid with a purple tint. The image shows a grid of streets, residential houses, and commercial buildings. A large, irregularly shaped lot in the center is highlighted, showing signs of recent clearing or construction, with some trees and a dirt path visible. The text "DEVELOPMENT CONCEPTS" is superimposed in white, bold, sans-serif capital letters across the middle of the image.

DEVELOPMENT CONCEPTS



PRELIMINARY CONCEPTS

Preliminary redevelopment concepts were compiled by the project team based on initial market and site investigation and input from residents during the first phase of engagement. These concepts can be seen on the following page and illustrate a variety of access options for the site, housing types, and public, open space and water features. These redevelopment concepts were vetted with the public during the second phase of engagement, and refined further based on input from residents, city staff and the property owner. A description of the different elements of the preliminary development concepts is included below.

Access

Cleveland Street is the local road that currently provides access to the Jefferson Quarry. The road is constructed to handle truck traffic from the industrial businesses adjacent to Highway 14, as well as the trucks from the Quarry. In both redevelopment concepts, the project team determined that Cleveland would remain the primary access to the site. The traffic capacity of the Cleveland and Third Avenue intersection is a concern which needs to be addressed through further study of traffic flow and impacts. There is an ongoing study of Third Avenue, which will consider the potential redevelopment of the Quarry.

The second access points that are illustrated in the redevelopment concepts are Brooks St and 6th Ave, providing a connection to the neighborhood to the south. Each alternative offers pros and cons including increased traffic through a residential neighborhood and conflicts with existing train traffic.

The redevelopment concepts also illustrate alternative internal road patterns for consideration. The first concept shows a ramp south from Cleveland Street and development closer to the river, as well as access options to both 6th Avenue and Brooks St. The second concept shows a ramp coming down from Cleveland Street, providing views of the river and a road adjacent to the river separating the public space near the river from the private development.

Public/Open Space

Public and open space is an element of site design that the public and the city can influence in a private development. For this reason, each concept included different elements of public and open space to test ideas and get input from the public. Each concept includes water features including a stormwater pond, as well as a water feature along the high wall to serve as a natural feature and protection from potential falling rock. Both concepts indicate that there could be a public plaza near the river, which would be accessible from the new development as well as the existing bike trail. Each concept shows open space on the property, which could be kept natural or be more programmed like a park.

Housing Development

The concepts show alternative housing options, including different mixes of apartments and townhomes. The housing type will be heavily dependent on the market and potentially also on incentives from the city. The housing development could include both affordable and market-rate housing. High-quality design will be prioritized in this location, as well as understanding the limitations of development near the river.



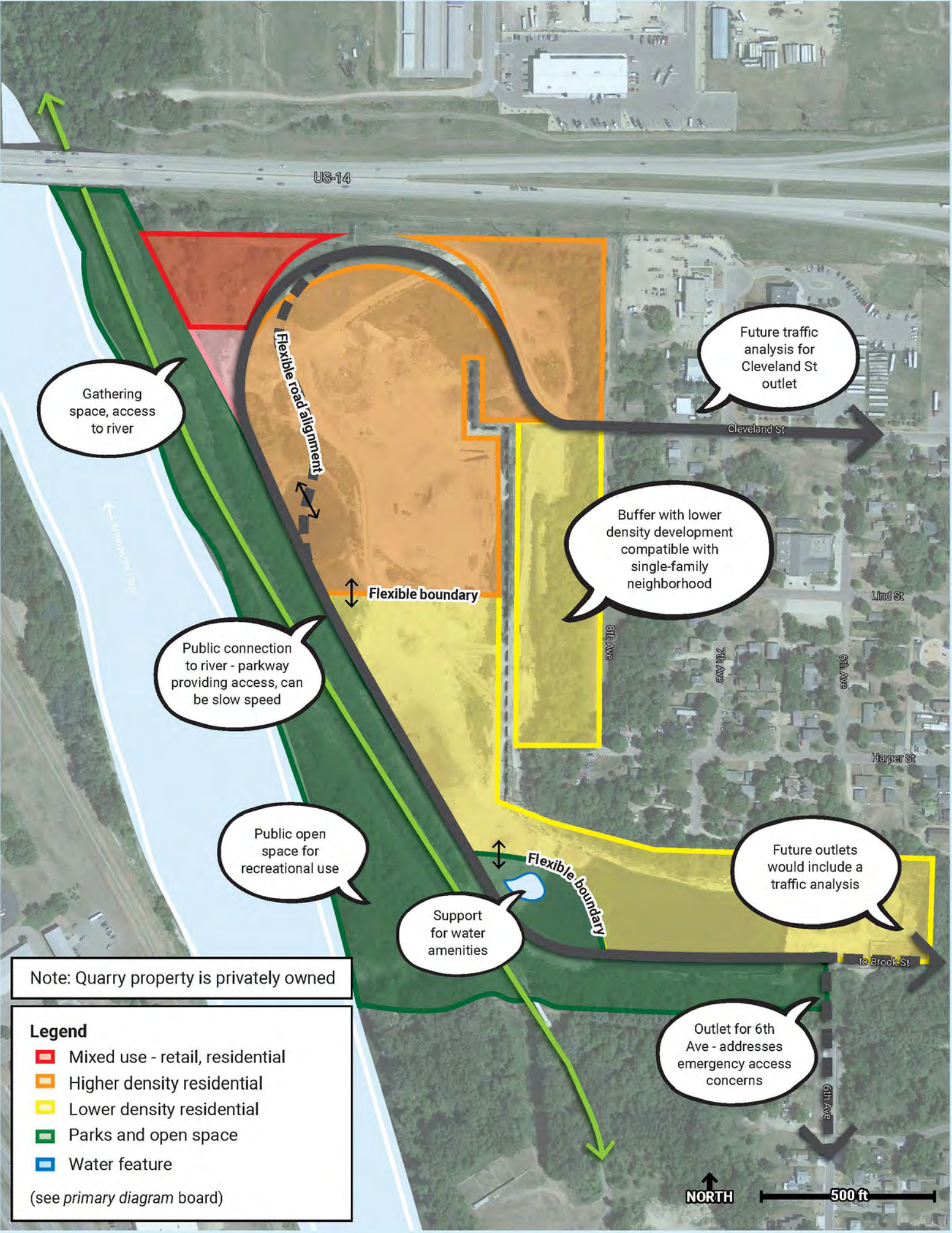


REFINED CONCEPT

Based on input on the preliminary development concepts, the project team refined the concept and made it more generalized, as illustrated in the Primary Conceptual Diagram below. Because the immediate outcome of this study will be a future land use amendment, and there are many more steps and decisions in the redevelopment process, a more general concept was more consistent with this phase of master planning.

Callouts in the Primary Conceptual Diagram reflect aspects of the development concept that were shaped by public input. For example, the public expressed a strong desire for outdoor recreation space and a connection to the river, both of which are incorporated into the final concept. It includes a buffer of low-density development between the neighborhood and the Quarry to be responsive to community concerns.

Other features reflect the importance of ongoing analysis. For example, the final concept is flexible on road alignment and type of housing development, recognizing that future traffic analysis will be necessary before road infrastructure is finalized, and the future mix of housing types will be based on specific developer proposals reflecting future market conditions.



Gathering space, access to river

Future traffic analysis for Cleveland St outlet

Buffer with lower density development compatible with single-family neighborhood

Public connection to river - parkway providing access, can be slow speed

Public open space for recreational use

Support for water amenities

Future outlets would include a traffic analysis

Outlet for 6th Ave - addresses emergency access concerns

Note: Quarry property is privately owned

Legend

- Mixed use - retail, residential
- Higher density residential
- Lower density residential
- Parks and open space
- Water feature

(see primary diagram board)



PRIMARY CONCEPTUAL DIAGRAM

The primary conceptual diagram is the culmination of input from the public, city and property owner and is meant to inform the Future Land Use for the Quarry property. Further description of each element is included in the sections below.

Land Uses

The future land use for the site was informed by market demand and input from the public. Future land uses were determined to be a mix of higher density residential, lower density residential, and mixed-use retail/residential development—as well as a mix of public open spaces including parks, plaza and water features. The project team included a flexible boundary for each type of housing, indicating that decisions about the appropriate housing density for the property have yet to be determined and will be influenced by other factors such as environmental review, future market conditions, financing and incentives. The mixed-use retail and residential land use adjacent to the river on the north side of the property is envisioned to include a sort of small footprint of retail shops and/or restaurants that could take advantage of the river views and relatively quick access from Cleveland Street and the bike trail. The retail footprint aligns with the level of demand that was determined from the market analysis, but it can be enlarged if interested retail tenants emerge or future developers determine a greater level of retail demand.

The land dedicated to parking will be dependent on the future mix of residential and commercial development, as well as the mix of housing formats that are built.

Access and Road Alignment

The primary conceptual diagram shows several access options that were studied through this process. These include the access from Cleveland Street, and potential access at the south end of the site to Brooks St or 6th Ave. The 6th Ave access would help address existing issues with emergency vehicle access to the adjacent neighborhood to the south. Brooks St would be a more direct access, but it may cause traffic concerns through a residential neighborhood. Each access will need further study to understand future traffic volumes and the need for intersection improvements on 3rd Ave. The road alignment through the site is also shown as flexible. Aligning the road near the river would provide a separation between the public and the private space, and allow for a parkway feel. Aligning the road behind development near the river would provide scenic river views for new development, but the proximity of development to the river embankment would require evaluation for consistency with shoreland regulations. Included in the development concepts is an illustrative potential future roadway connection to the south through the MK1 Quarry.

Open and Public Space

The public voiced a strong desire for parks and open space in any redevelopment scenario. The Primary Conceptual Diagram concept shows natural open space near the river and a variety of water features complementing that open space. The Diagram also shows a public plaza near the river, associated with the retail area and trail, which could serve as an activated community gathering space. The diagram notes the importance of including trail access to the existing neighborhood.



US-14

Cleveland St

Lind St

Harper St

6th Ave

7th Ave

8th Ave

to Brook St

6th Ave

Legend

- Mixed use - retail, residential
- Higher density residential
- Lower density residential
- Plaza / gathering space
- Parks and open space
- Water feature
- Trail
- - Vertical limestone edge
- ➔ Primary roadway access
- ➡➡ Alternative access outlets

Flexible boundary

Flexible road alignment

Flexible boundary

NORTH

500 ft

OPEN SPACE AND WATER FEATURES

The project team created diagrams showing a variety of open space and water features that were popular among members of the public. The diagram shows where public space and water features could be located on the site and the photos provide a variety of ideas for how that public space could be utilized.



PLAZA/GATHERING SPACE NEAR RIVER

Members of the community also indicated that a plaza or gathering space near the river would be desired. That feature would take advantage of the existing trail and potentially include a closer connection to the river when river levels allow¹. The diagram shows where the plaza would potentially be located, as well as photos showing ideas supported by public engagement.



¹ The terraced river connection would be a multimillion dollar project and there may be funding constraints. There may also be constraints with environmental impacts.

NEXT STEPS INVOLVING PUBLIC INPUT

The adoption of this plan will be followed by subsequent steps that will allow the redevelopment of the property to be further influenced by public input. These are discussed in the following section of this plan.



An aerial photograph of an industrial or commercial area, featuring various buildings, parking lots, and a multi-lane highway. The entire image is covered with a semi-transparent green filter. The word "IMPLEMENTATION" is centered in the middle of the image in a bold, white, sans-serif font.

IMPLEMENTATION



The redevelopment of the Jefferson Quarry site will be a complex process that will occur over a long period of time. It will require additional analysis related to several issues, and a number of public review processes.

The scale of the 54-acre site means that multiple development projects will be required for its complete buildout, and in many cases the previous development phase will need to be at or near full occupancy before the next phase can get underway. Because the site currently lacks road and utility infrastructure, development of the site will also require close collaboration with the City of Mankato.

PUBLIC INFRASTRUCTURE

A challenging aspect of a development of this type and scale is that the public sector needs to invest in a great deal of public infrastructure before any private development can be built. In the Jefferson Quarry, the entire primary spine of the road system may need to be constructed, from the northern access point to the southern, and utility services brought to and through the site. Proactively building that road and utility infrastructure will require several preparatory steps.

- Traffic and intersection studies will explore the pros, cons, and impacts of the alternative access points
- The feasibility and implications of utility provision will be studied further
- New roads and utility systems need to be fully designed and permitted
- The land will require platting, which dedicates road right of way and new public lands such as parks, and establishes the property boundaries for developable property.
- The financial mechanisms for making these public investments will need to be determined


As these steps are taken, a collaborative conversation and negotiation will occur between the City of Mankato and the property owner to determine the property owner's role in infrastructure funding.

PRIVATE DEVELOPMENT

The Jefferson Quarry property ownership group will lead the private development processes. They will finance and develop successive phases of development, and/or seek out development partners that will do the same. The involvement of several developers that focus on different types or formats of development is likely in the process of full site buildout.

The recommended phasing of the development is from north to south, so that the amenity commercial node and public space is built early on, and that amenity builds the attractiveness of the site for future phases. The higher density residential buildings that are proposed near the amenity commercial node are intended to provide a customer base for those businesses and contribute to their viability.

The ownership group will work in consultation with the City of Mankato to refine the vision in this plan into a more concrete master plan that has established road alignments and development blocks or parcels that are realistically sized for future development phases. The master plan could be completed in parallel with plans for the first development phase, demonstrating that the initial phase(s) of development is compatible with full site buildout. The master plan is subject to further modification over time as market conditions change or new development partners emerge.



Each phase of development will require its own set of tasks that involve further due diligence and predevelopment actions, including:

- Geotechnical analysis (to understand foundation structural requirements)
- Market analysis specific to the proposed development type and format
- Assembling the design and construction team
- Creating the development proforma (financial plan)

If public financial support is needed or requested, negotiations to that end would occur. Consideration of granting public financial support would entail a public review process.

Development applications to the City of Mankato will be required of any development phase, as noted in the following section, before building permits are issued.

REGULATION AND REVIEW PROCESSES

The vision in this plan document is a departure from the existing Future Land Use policy in the City of Mankato's comprehensive plan. Upon adoption of this plan, a Future Land Use amendment will be processed by the City Council to bring the envisioned land use in line with this plan vision. That will be a public process, allowing for input from stakeholders and community members.

Other review processes will be required for each individual development project in the project area, including:

- Subdivision. All land must be platted before development can begin. Platting property will require a subdivision application. The platted land may require further subdivision to create parcels suitable for each development project.
- Rezoning. The existing industrial zoning of the Jefferson Quarry site will need to be modified to support residential or retail development. The rezoning of property will require a development application in each phase of development and will entail a public hearing process.
- Shoreland and environmental reviews. For projects in close proximity to the Minnesota River, a shoreland and environmental review will be conducted, which will require consultation with state agencies. The Environmental Review will consist of an Environmental Assessment Worksheet under MN rules. The process allows for members of the public to comment on the proposed development. It will also involve examining public infrastructure and traffic mentioned above.
- Other development review processes may be required depending on the specifics of development proposals.

Appendix – Engagement Summary

Open and Public Space:

- Boat dock
- Marina
- Bridge to old town (+2)
- Can existing water feature remain
- Canoe launch
- Increase retail and restaurants
- More traffic control in the area
- Specialty type of restaurant
- Convenience store
- No more luxury apartments
- Focus on river access and possibilities for connections for activities
- Rose garden
- Possible trails
- Water trails (+1)
- Kayak activity or site in specific designated areas
- Bike and or hiking single track trails (+1)
- More low income housing bike trails
- Connection with river (+1)
- Bridge connection on Minnesota River...Mankato/North Mankato Highway 14 (+1)
- Public mountain bike trail/bike park – self funded! (+11)
- Public open space is great. I'm worried about over populating this area creating lots of traffic – also over pricing our current residents.

Photo Voting

- Small Restaurant – 1
- Gazebo – 5
- Gravel trail – 7
- Ivy covered path – 8
- Quarry lake – 15
- Plaza with seating and fountain – 13
- Open park – 2
- Structured plaza with planters – 1
- Dock – 6
- Amphitheater – 4
- Skating – 2

Jefferson Quarry Scenario 1:

- Compaction
- Consider keeping some of the water for possible park or recreation. That would be a benefit for housing built there. Waterpark and charge! Prefer park idea.
- Mountain bike trails
- Boat dock
- Connection across the river. By highway 14 or pedestrian/bike trail
- Mountain biking trails – will bring outside people to spend money in Mankato and can be used by walkers/runners and families
- I prefer this proposal – more access roads and town homes

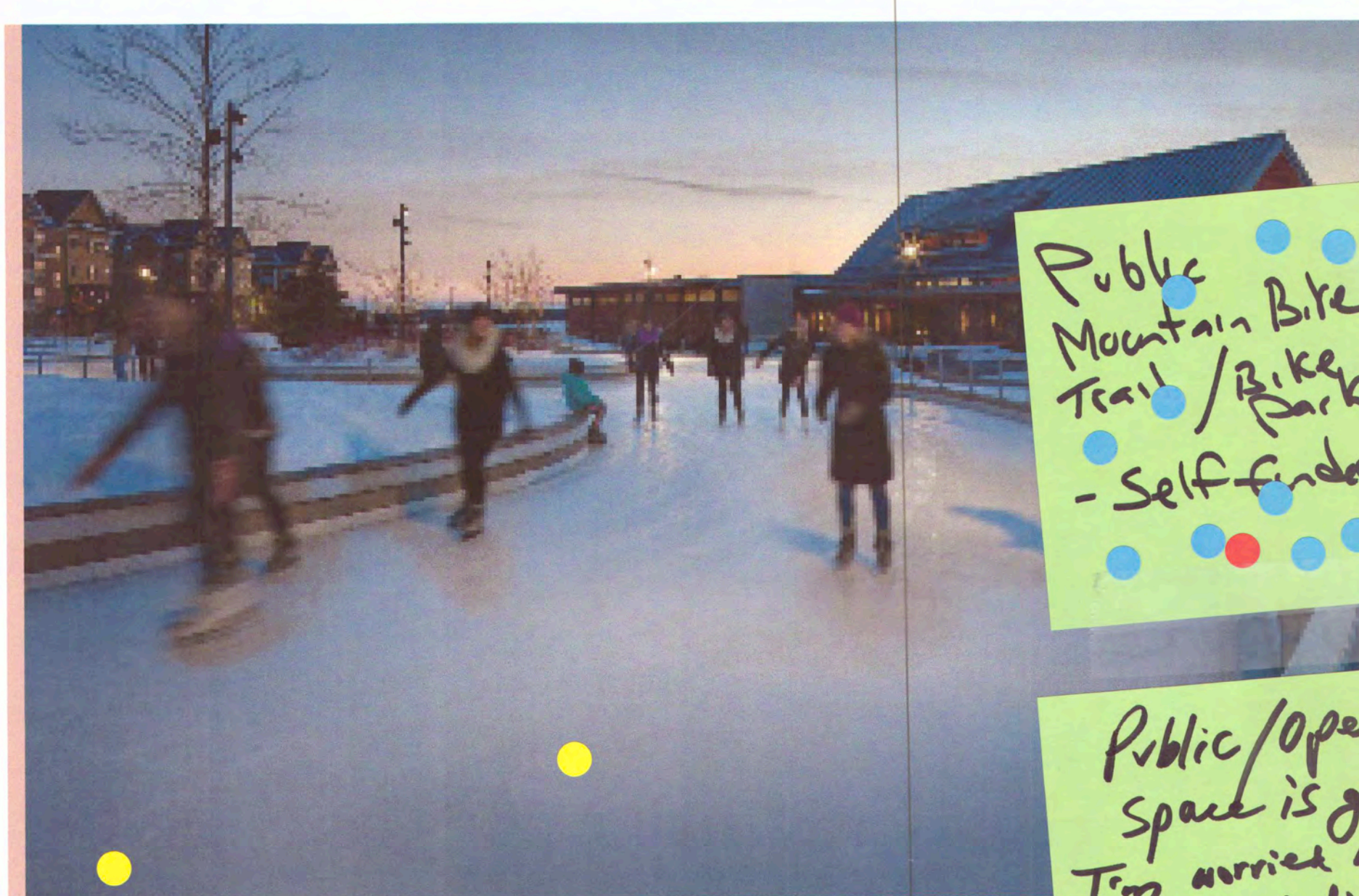
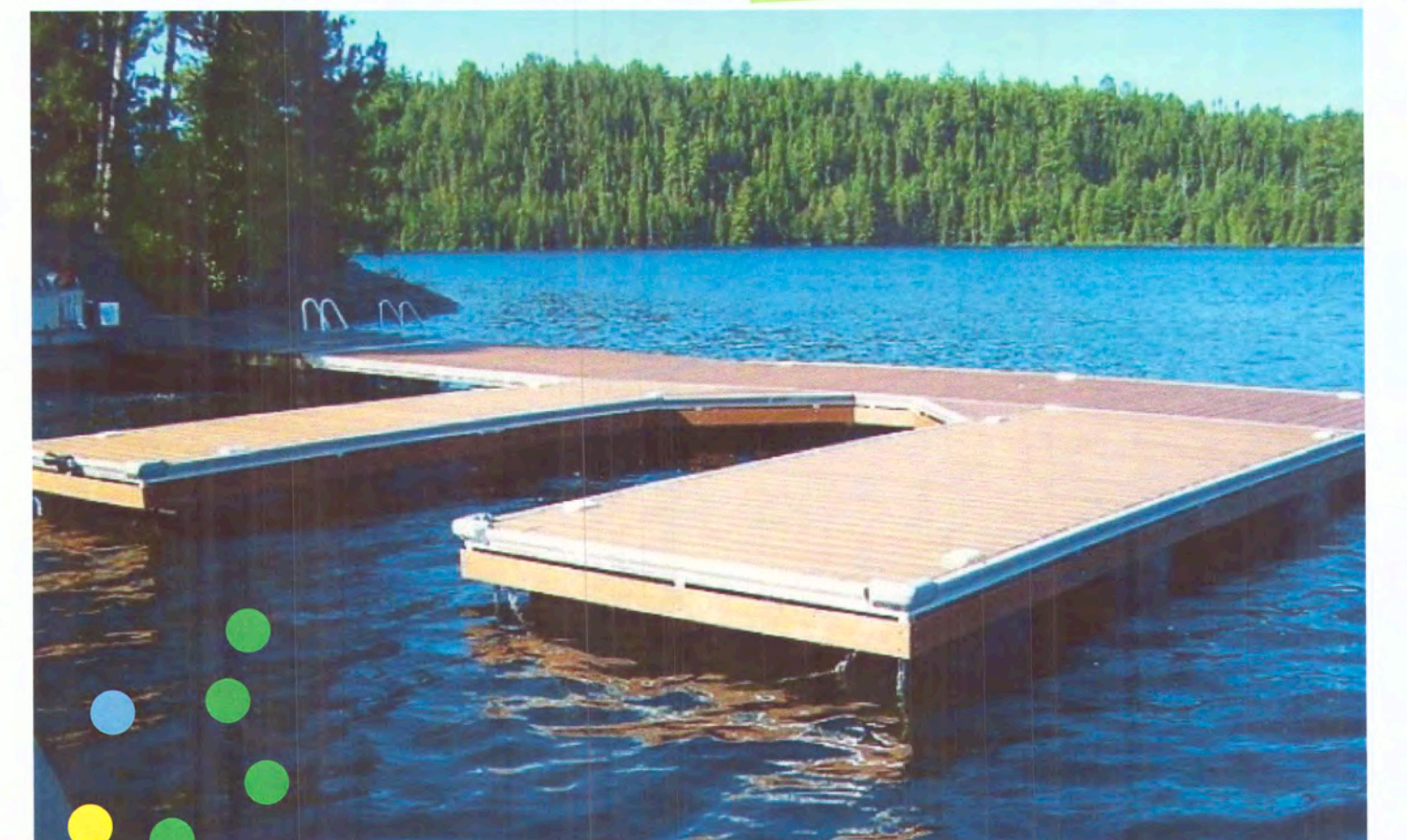
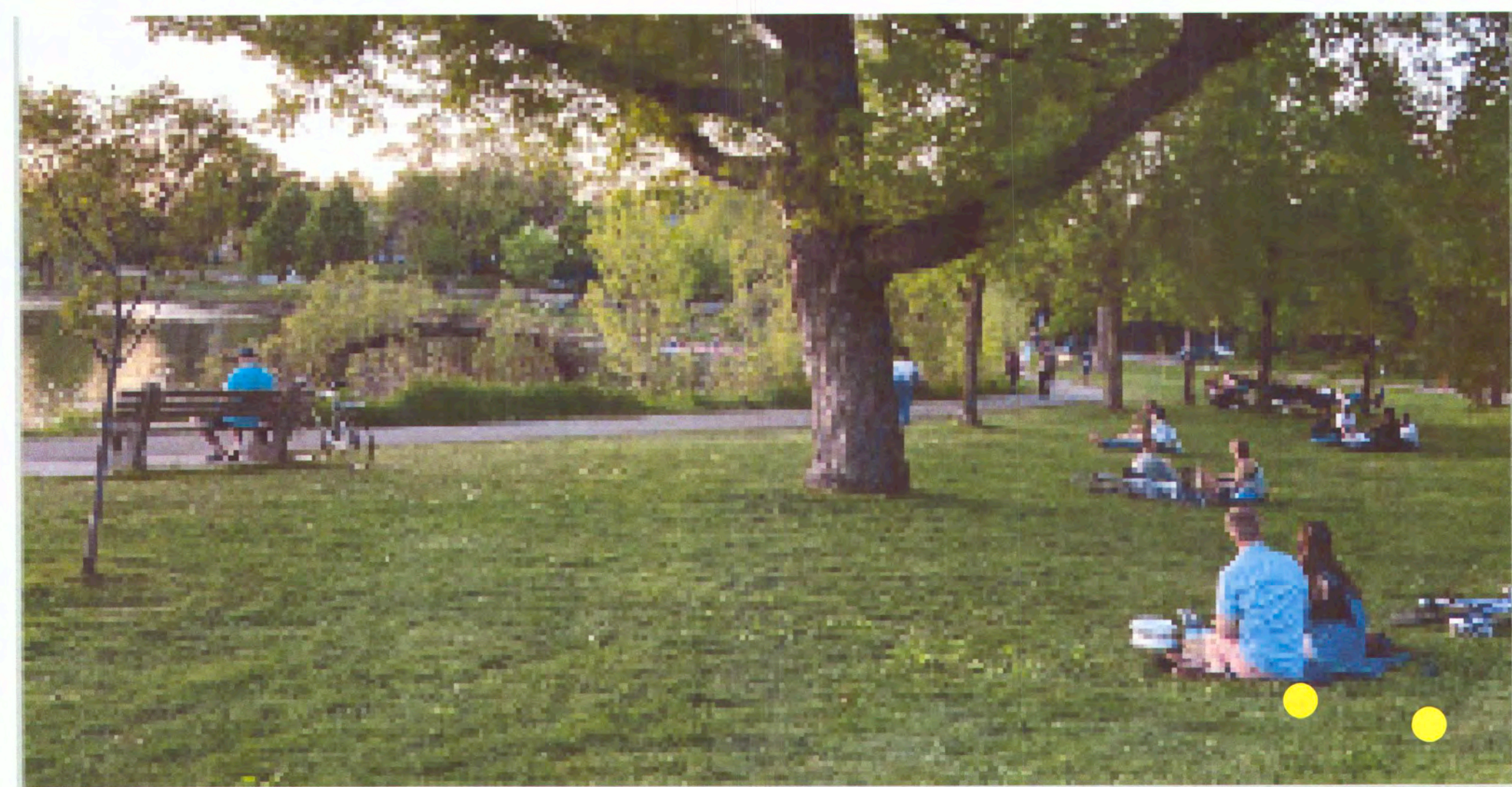
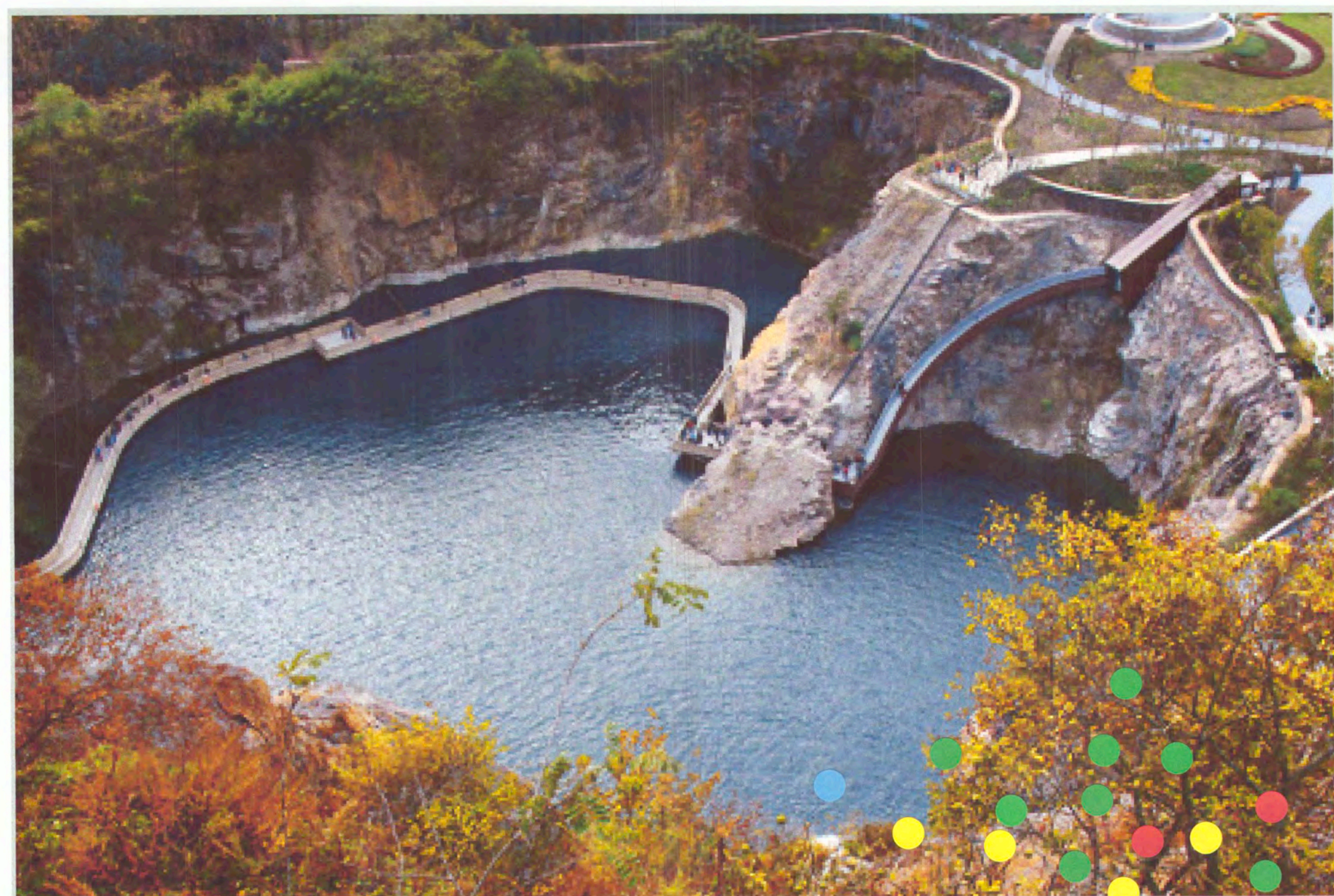
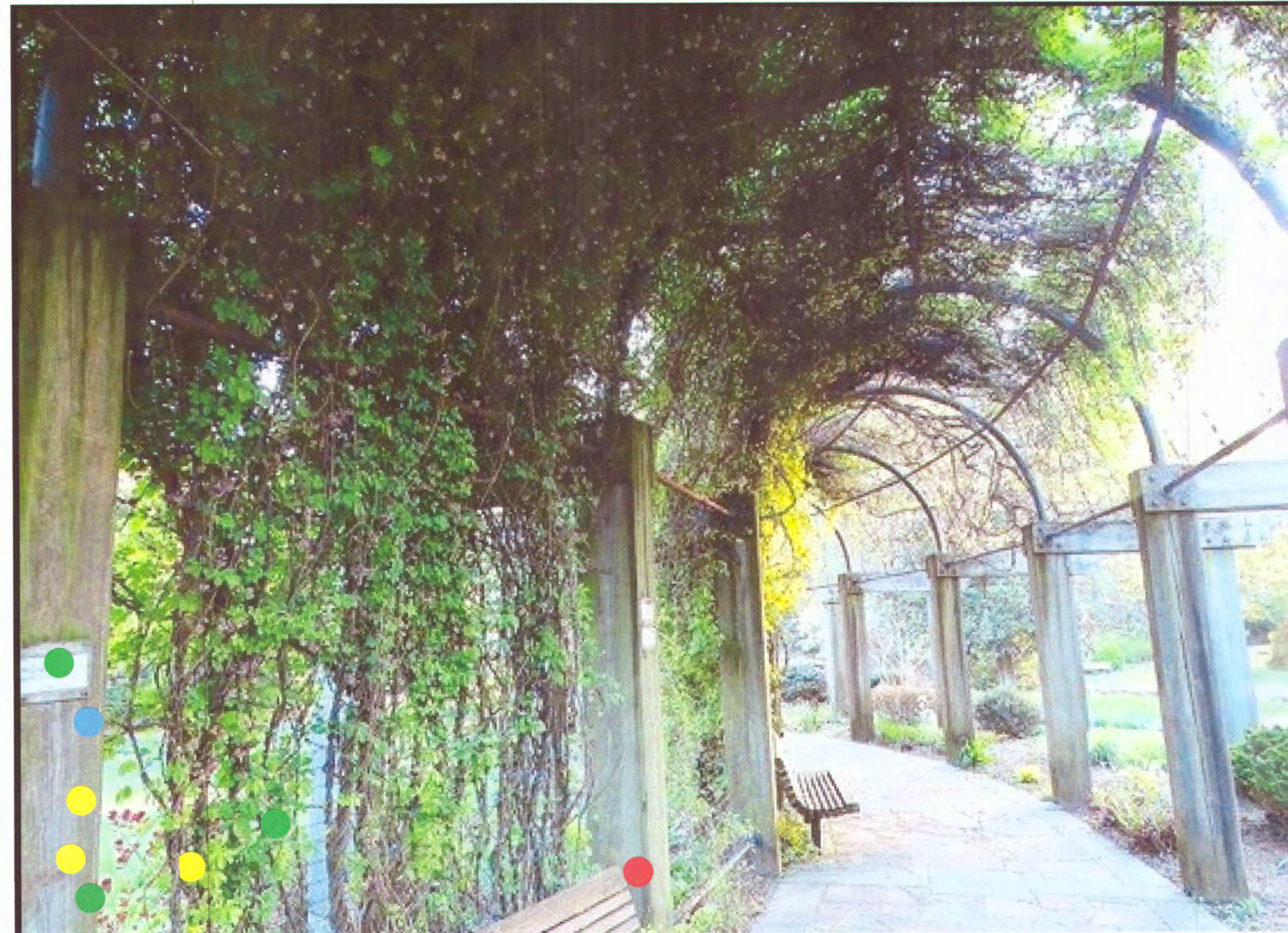
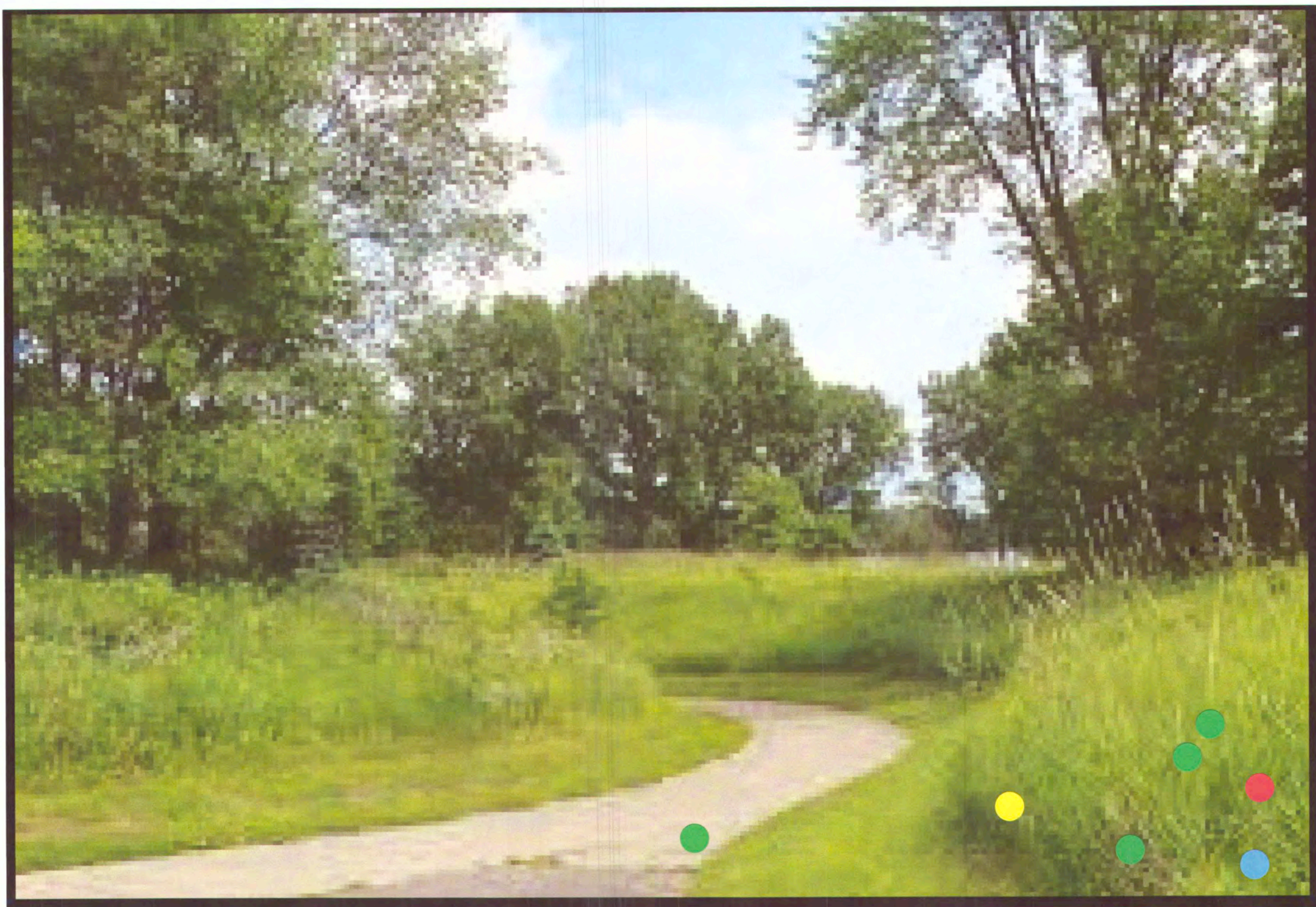
- Affordable housing – not all market rate. Accessible housing for people with disabilities
- Riverside park – canoe landing, trails, bike walk, parking for the park use
- Top floor event space – ½ indoor/half outdoor
- Keep traffic off Brooks street if commercial building
- Trails/river access/parks/public use benefits everyone without raising taxes
- Who is paying for road redevelopment – property owners?
- Mountain bike trails and/or green space
- Keep lake for a park area
- Keep the riverbank untouched and wild – yes!
- Ground level parking would be great for housing, covered parking so it is safe and vehicles protected in inclement weather
- Thank you for caring for our input
- Please keep height of apartments below height of existing neighborhood
- Water pollution – protect pond is inter to ground water all the way to Wisconsin
- 50 and over houses
- Bicycle pump track
- Has a target value for entire development been identified? \$500M...
- Good property management company
- What about the gun range?
- Mankato needs low income housing, not affordable housing as low-income folks cannot afford it and quite a bit of it already.
- Glad you're considering potential flooding
- Arboretum – yes!
- Rock climbing

Jefferson Quarry Scenario 2:

- Bridge to old town
- Parking?
- Neighborhood retail
- Protective safety fence – 60' drop off
- Single family on top
- Mountain biking/native area/trails
- Regardless of plan, traffic control is needed – Lind and Harper
- Might this area be over-developed – traffic, taxes, etc.
- Please keep height of apartments below the height of existing neighborhood
- Affordability
- Boat dock
- Keep the riverbank untouched and wild
- Pump track for bikes
- Keep lake for a park area
- Traffic control
- Can the current neighborhood be a gated community?
- Please find a way to connect 6th Ave neighborhood with this development so they have a second outlet in case of train on tracks

Public and Open Space Ideas

Place a dot next to the the public or open space areas that you would most like to see in the Jefferson Quarry redevelopment



- Increase Retail and Restaurants.
- More traffic control in the area.
- Specialty type of restaurants (wine).
- Convenience store.
- More low income housing.
- Bike trails.
- Connection with river.
- Kayak activity or site in specific designated areas.
- No more luxury apartments.
- Focus on river access and possibilities for connections for activities.
- Rose Garden Possible Trails Water Trails

Public Mountain Bike Trail/Bike Park - Self funded!

Public/open space is great I'm worried about over populating this area creating lots of traffic - also over pricing our residents

Bridge Connection from Minnesota River - Mankato/North Mankato 14 Highway.

Biking for hiking single track trails

Jefferson Curry
could you take
Tues. June 28
5-7:30
July 1st 12. Date 50

compaction

Consider keeping
some of the
water for possible
park or recreation
that would be a
benefit for housing
built there.
We are park of charge?
Prefer park ideas!

Mountain Bike
Trails

Boat dock

Connection across
the River.
By Hwy 14 or
Pedestrian/Bike
trail.

I PREFER THIS
PROPOSAL -
MORE ACCESS
ROADS & TOWN
NAMES

Affordable
housing - not
all market
rate.
Accessible housing
for people with
disabilities.

trails / river access
parks / public use
benefits everyone
who raising
taxes.

Keep TRAFFIC
OFF Brooks
STREET if
it commercial
Building

Who is
paying for
Road Rede-
velopment?
Property
owners?

KEEP THE
RIVERBANK
UNTOUCHED
& WILD!
yes!

MTN
Bike trails
4/or
Green space

KEEP LAKE
FOR A PARK
AREA

Bicycle
pump
track

HAS A Target
Value For
entire development
been identified?
\$500M...

50 and
over houses

Good property
management
company

ground level parking
would be great for
housing, covered
parking, so safe &
vehicles protected in
inclement weather!
Thank you for
caring for our
input!

PLEASE KEEP
HEIGHT OF
APARTMENTS
BELOW THE
HEIGHT OF THE
EXISTING
NEIGHBORHOOD

Water
pollution
Protect
Pond is
Inter to
Ground water
the way
to Wisconsin

Rock
CLIMBING

Markets needs low
income housing, not
"Affordable housing",
as low-income folks
cannot afford it, &
quite a bit off it
already.
Glad you're considering
potential flooding.
Arbrejohn! Yes!

What about
the
gun range?

LEGEND

- Retail/restaurant space on first floor
- 4-story apartment (with structured parking)
- 3-story apartment (with surface parking)
- Townhouses
- Roadway
- Bike/ped Trail
- Sidewalk (purple)

Bridge to
old Town
connectivity

PARKING?

Neighborhood
Retail

Protective
Safety fence
60' drop
off

Single family
on top

Mountain
biking /
nature area /
trails

Regardless
of plan
- traffic control
needed - Lind
+ Harper

might this
area be over-
developed.
Traffic, taxes,
etc

Boat dock

KEEP THE
RIVERBANK
UNTOUCHED
& WILD

Pump track
for bikes

KEEP LAKE
FOR A PARK
AREA

PLEASE FIND A
WAY TO CONNECT
NEIGHBORHOOD
6TH AVE. WITH
THIS DEVELOPMENT
SO THEY HAVE A
2ND OUTLET IN CASE
OF TRAIN ON TRACKS

Wastewater
treatment
plant

LEGEND

- Retail/restaurant space on first floor
- 4-story apartment (with structured parking)
- 3-story apartment (with surface parking)
- Townhouses
- Roadway
- Bike/ped Trail
- Sidewalk (purple)

TRAFFIC
CONTROL

PLEASE KEEP
HEIGHT OF
APARTMENTS
BELOW THE
HEIGHT OF
EXISTING
NEIGHBORHOOD

Affordability

Can The
Current Neighborhood
be a gated community



Mankato Engagement Summary – October, 2022

Scenarios Discussed at Last Community Meeting on June 28th

- Ped/bike bridge across river
- Bridge to 169
- Positive to see development happen
- Harper St another access
- Check into Federal \$\$ in transportation
- 6th Ave – 5th Ave 2nd access to area
- Train causes many issues – need limits for train stops
- Adjust road to rise over train tracks



Community Input from Previous Open House

- Want housing ready to move – next to recreation space
- Make clear trail connection to neighborhood
- Not down Brooks x 3



Primary Conceptual Diagram

- Corner Harper and 8th Ave – improve drainage for existing residents
- Care w/environment and tree removal, vegetation
- Highway 14 connection to site
- Care w/impacts and neighborhood
- Concerns w/mountain biking through general area



Plaza/Gathering Space Near River

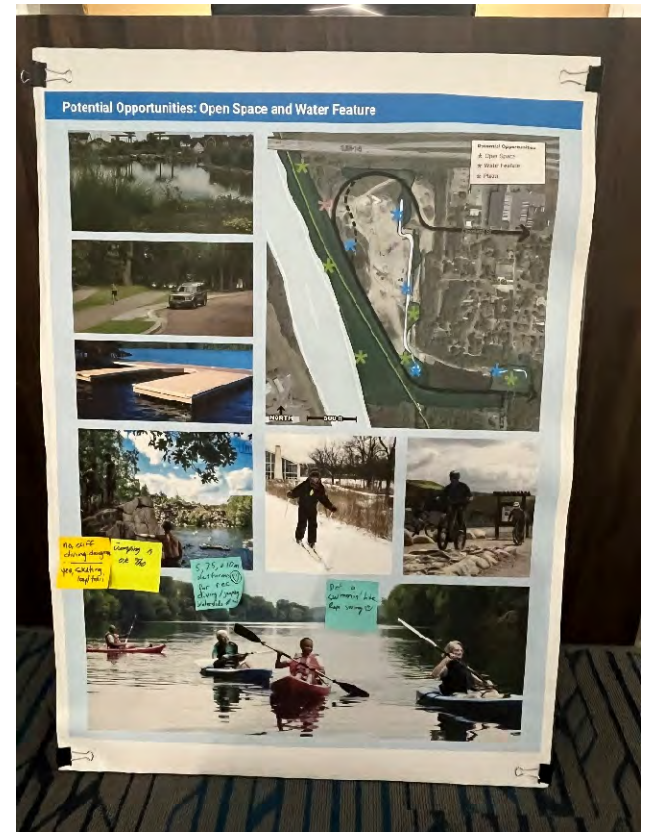
- Leave it all wild, we like it the way it is!
- I like this (floodable stairs)
- Like (water feature plaza)
- Safety concerns with kids by water
- I like that concept - if it will attract renters. Pickleball would be great if there is space for that. I don't think this is the place for skating or a splash pad. Lots of maintenance for little or no use. This isn't an area where you'll attract people from across the community, and I don't think people in Germainia park want the additional traffic.
- Retail - Restaurant - I can see a coffee shop and fitness center (if one isn't available in the apartment units. But there just won't be enough traffic or an attraction to draw people into this place. Possibly if there were a real outstanding brewery or up-scale restaurant, but likely not enough here to make a profit.



Potential Opportunities: Open Space and Water Features

- No cliff diving – dangerous
- Jumping is ok though
- Yes, skating loop/trail
- 5, 75 and 10m platforms for rec diving/jumping, waterslide
- Def a swimming lake, rope swing
- Like walk and bike paths
- Concerns with safety w/water
- No swimming (in quarry pond)
- Have a way to housing so ppl don't get hurt
- Like (kayaking)
- connection with the river - I don't think that many people would go to the quarry to kayak on the river, or canoe or swim, but I do like the concept of having the steps (in plaza) there and access for the people that live in the quarry or Germainia park area to have access to the river.
- Splash pad - no one will really go down there. A splash pad needs to be in an area that is accessible and visible, and has to be in an area where there are a lot of young families. I don't think this

area will be attracting this demographic. - Possibly empty nesters and young professionals.



Next Steps Involving Public Input

- Need to address the safety of the drop off
- Additional engagement during next steps
- Examine impacts to aquifer
- Pedestrian network examined as part of traffic study on Cleveland St
- Soil and subsurface suitability for building
- As part of shoreland look at water quality and impacts to the river



General Comments

- Target people for the development - effect on neighborhood crime rates
- The development plans are interesting. My primary concerns with this project are that we are creating another cookie-cutter housing area that will negatively impact the river and surrounding ecosystem. I am also curious/concerned about the walkability of the area – will this be pedestrian friendly or a car/traffic hub? Thanks for putting this open house together and welcoming feedback
- I support including a splash pad at this site. A splash pad at this site would be in walking distance for many families without funds to pay for swimming facilities.
- Make it into a casino that would draw money to the Mankato area.
- In design, first comes energy efficiency. But then comes installing solar panels so that the development can be energy- and carbon-neutral. The development needs to be as energy- and carbon-neutral as possible. The technologies and funding exists, so this only makes sense. Here's a good example of how proper planning can work for any area in the country:
<https://www.businessinsider.com/hurricane-ian-solar-power>
- Costco Mankato needs a Costco. A new one of a kind playground.
- Scenario A is better. It will provide great homes for people of different styles and needs. I also like the 3 roads that are access points in and out of the area. This will provide an opportunity for people cut off by trains to actually leave and to go home. It will also improve use of the trails and access along the river.

- Option A is the better option but there is a lot of parking with no mention of public transit. The city should be working with private developers to make Mankato less dependent on cars. A bus service that arrives often and doesn't just serve the college would work fine.
- Whatever comes to be of the quarry site, I hope it meets the two fundamental needs of our community: 1} More affordable housing units, and 2) undisturbed habitat for flora and fauna.
- This should be a private development what ever it is.
- Fill out the survey. Tell the city you want parkland, natural areas and sustainable (energy neutral} development, perhaps low- to medium-income housing.
- As has been mentioned many times already, Mountain Bike trails make a ton of sense for this space. There is a dedicated community of cyclists in Mankato already, even with the few options we currently have for trails. Imagine what having a dedicated space with elevation to work with could produce! Please take a look at Cuyuna Lakes area Mountain Bike trails for a perfect example of what could be done with this space!
- This could be a smaller version of the Cuyuna Mountain bike trail area. I could see a mountain biking destination in the works with this one. We have a strong local organization who can build and maintain it. Access to funds via grants and donations. The Mankato Area Mountain Bikers can do it!
- The top concept makes the most sense. To have the high-density housing in the quarry, and then have the townhomes at the top of the embankment and on the south edge Brooks St. Also its an advantage to connect to 6th avenue (the city should pay for this rather than the developer). That will help the people who get cut off by the train.
- The city (in the future) should also try to connect to the Mankato quarry with a road above or below the tracks, and down to Madison Avenue.
- Overall, the concept of this place being much like along the Mississippi River in St. Paul would be unbelievable. The trail along the river, having a coffee shop and some outdoor plaza area with the steps down to the river (not as big as what's pictured), great lighting and very attractive architectural design as well as underground parking to maximize the green space and minimize parking lot size - we would definitely move there!
- The townhomes along the Embankment and south edge would be a great buffer with the Germainia Park residents.
- This is just a really great plan.
- With what you know about the Jefferson Quarry property, what do you believe to be its greatest strengths? **Beauty. Rocks. River. Pond. All in all, a connection to nature. The confined feeling is also a strength depending on what is going to be built.**
- Recognizing that no property, or location is perfect, what do you believe to be the most significant weaknesses, or liabilities, as it relates to the future reuse of the Jefferson Quarry property?
Cost. Digging Footings (?). Bringing in utilities. Flooding. Also – something to work on is the couple blocks before the entry...kind of an eye sore.
- What do you believe to be the most important opportunity to be realized through the reuse and redevelopment of the Jefferson Quarry property? **Build something futuristic – not space age necessarily but future modern housing (homes & apartments). Push the envelope with new design that fits in with the natural beauty of the area. Leave a home and/or apartment for model showing. Charge \$\$ to tour them. Solar technology – smart homes – new modern design that fits in with the nature in the area. Something for the evolved human.**

- There are likely to be competing interests and different opinions about the future of the Jefferson Quarry property. What do you believe to be the biggest threats to the realization of the outcomes you think would be best? **Taking a chance on futuristic smart-home design.**
- For this exercise, we want you to tell us about your vision for the redevelopment of the Jefferson Quarry property. What are the neighborhood needs that should be met in the reuse plan for the property? What are the broader community-wide needs that could be accommodated on the property? **This property is a very beautiful unique area and should be enjoyed by the community. I believe modern, livable housing should be built (solar window energy, modern design, functional). A mixed-use building with a restaurant, retail, meeting rooms/events with piazza. Push the envelope in new smart design. Charge \$\$ to see new model homes or apartments. They may want to hire an Indigenous architect to collaborate on the project.**