

1. INTRODUCTION

Background

Rochester's Center City (encompassing the area within the Inner Loop, High Falls, a portion of the Corn Hill neighborhood, and the upper East End) has been experiencing resurgence due to increased public and private investment. Over the past two decades, Center City districts, such as the East End, Grove Place neighborhood, and the St. Paul Quarter have benefited from an increase in residential units in the form of both new construction, and the renovation of existing historic buildings, however, the southwest quadrant of Center City (south of Main Street and west of the Genesee River) has yet to see a residential presence emerge. Recent projects such as the relocation of Nothnagle's headquarters to a pair of rehabilitated buildings at the corner of West Main Street and Broad Street, and the construction of the Monroe County Crime Laboratory at the southwest corner of Broad Street and South Plymouth Avenue have indicated that investment within the southwest quadrant is beginning to take hold. The County is also in the midst of a full renovation of the Civic Center Plaza, and Riverview Rochester, LLC has begun conversion of 44 Exchange Boulevard for residential use, which will be the first residential building in the Center City Southwest since urban renewal. All of these projects demonstrate that the southwest quadrant has enormous potential, and the time is right to formalize a Master Plan for its future growth.

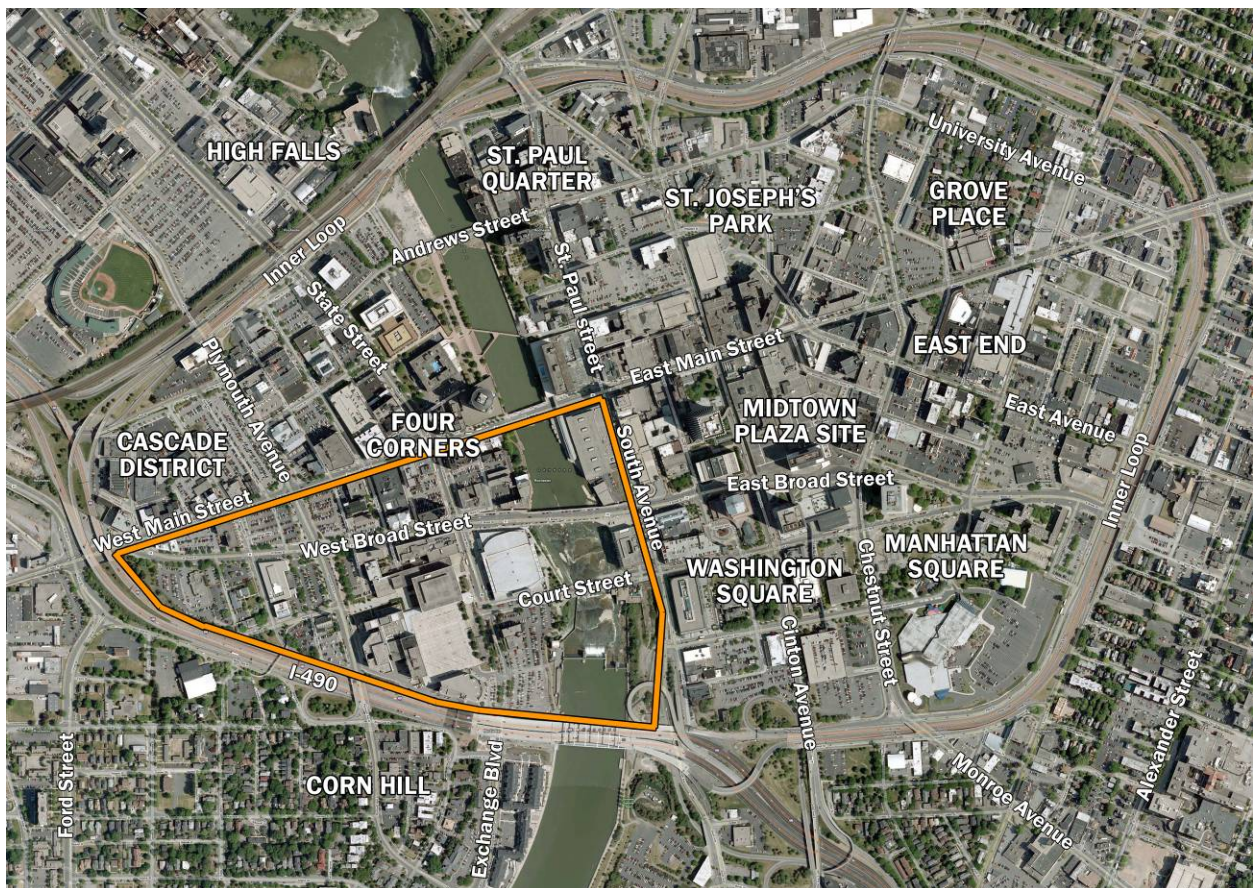


Figure 1.1
Aerial view of Center City with project area outlined

Without question, the most significant contributor to Rochester's tremendous growth as a city in the mid to late 19th Century was the Erie Canal. Today, few people realize that the Erie Canal originally ran through the heart of downtown Rochester (specifically the southwest quadrant of downtown) along a route that is presently marked by West Broad Street. Broad Street is the result of the canal having been rerouted to the City's southern line in 1919, an effort that was undertaken to increase its width and improve congestion in the central business district. Today West Broad Street runs through the City of Rochester between Lyell Avenue and the Genesee River, where it crosses to South Avenue via a bridge constructed in the early 1920s atop the historic Erie Canal Aqueduct of 1842. The Aqueduct had been constructed to carry the Erie Canal over the Genesee River so that the two did not intersect, given the fluctuating levels of the river and its tendency to flood on occasion prior to the construction of the Mt. Morris dam several miles upstream. Broad Street was later extended east of South Avenue all the way to Union Street, however, it is the portion west of South Avenue that aligns with the original Erie Canal path.

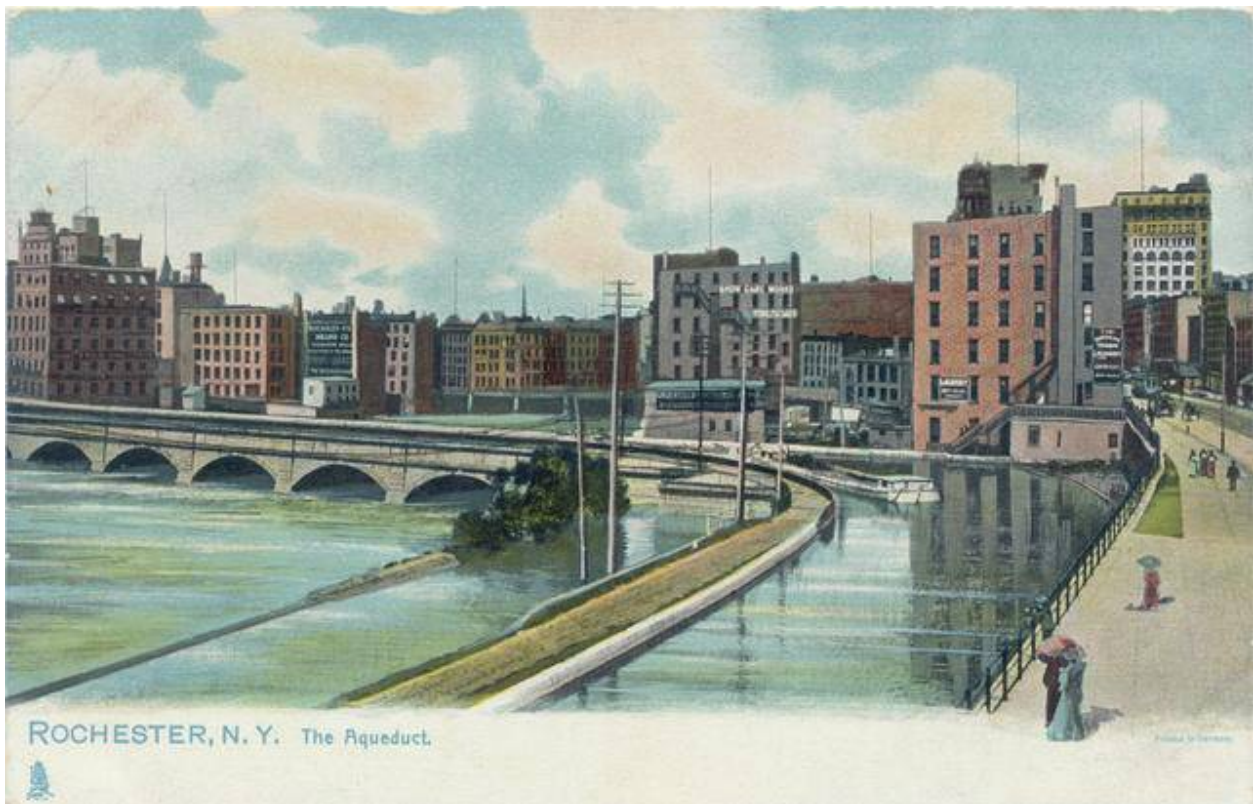


Figure 2.2
Historic postcard view of the Erie Canal crossing the Genesee River via the aqueduct

In an effort to celebrate the significant role the Erie Canal played in the growth of Rochester, and to shine light on the tremendous potential of the southwest quadrant of the Center City, The Historic Erie Canal Aqueduct and Broad Street Corridor Master Plan (further referred to as the Master Plan) was generated in order to establish an identity for the southwest quadrant through significant public realm improvements, and rebrand the area as Rochester's Historic Canal District. The Master Plan has been included as Appendix A to this document, and a supporting Market Analysis conducted as part of the Master Plan is included as Appendix B.

The creation of the Canal District will create a distinct identity for the southwest quadrant, and will center on a series of public improvements that have been conceptualized for the Broad Street Corridor (former route of the Erie Canal) between South Avenue and West Main Street. The Broad Street Corridor has an incredibly rich history, and has been an important transportation route since its Erie Canal days. After the canal was rerouted in 1919, the open cut that accommodated the canal was drained and reconstructed to house a subway line for interurban trolley cars in an attempt to alleviate congestion on surface streets within downtown. Known as the Rochester Subway, the line was in operation from the late 1920s until 1956, and while it stretched across a large area, only the portion under Broad Street was enclosed in a tunnel below grade. The portion of the subway line outside of downtown to the east and west ran in the open cut leftover from the canal, and was not tunnelized to save on costs. The subway tunnel through downtown (about two miles in length) was created by reinforcing the walls of the old canal bed, and capping the open cut with a road deck which became Broad Street. The stone aqueduct that had carried the canal over the Genesee River was used as the base for what is now the Broad Street Bridge. The original floor of the aqueduct was fitted with tracks to accommodate the subway cars, and the road deck above carried automobiles. After the Rochester Subway was closed in 1956, the tunnel beneath Broad Street was mostly shuttered although was used by Gannett up until the 1990s for paper delivery to their Broad Street building. Today the tunnel has been filled in north of West Main Street, and the remaining portion from West Main Street to Court Street is primarily used as a utility corridor.



Figure 3.3
Historic photograph of the aqueduct adapted for subway use and Broad Street Bridge roadway

In addition to its important role in Rochester's transit history, the southwest quadrant is also significant due to its collection of historic buildings representing a variety of architectural styles. Many of these buildings are local landmarks and/or on the National Register of Historic Places, and fortunately survived the period of urban renewal from the mid 1950s to mid 1970s which resulted in the demolition of many buildings in order to both "modernize" the central business district and create ample parking. Large transportation projects, such as the construction of Interstate I-490 and the Inner Loop, cut the area off from adjacent neighborhoods, and creation of the Civic Center and Blue Cross Arena resulted in the loss of many structures that would today likely be considered historically valuable. To look at a present day aerial view of the Center City, (as seen in Figure 1.1) it becomes very apparent the southwest quadrant has lost much of the density it once had, especially west of South Plymouth Avenue. Recognizing the tremendous potential of this area to yield new development, the City of Rochester engaged a consulting team to undertake a master planning process for the Historic Erie Canal Aqueduct and Broad Street Corridor (the Master Plan). The Master Plan outlines a framework for extensive public improvements along Broad Street that will highlight the original pathway of the Erie Canal through downtown. This effort also includes a plan to rebrand the southwest quadrant of downtown as Rochester's Historic Canal District.

The Master Plan

The Master Plan is the result of an interactive process which focused on improvements to the public realm along Broad Street, the potential for economic development within the district, and its relationship to the surrounding downtown area. The series of public improvements have been conceptualized to establish a unique sense of place, enhance aesthetics, and incentivize private development throughout the southwest quadrant in an effort to convert it into the Canal District. The district boundary is roughly triangular in shape and delineated by West Main Street, South Avenue, and I-490. The master planning process was highly collaborative and included extensive involvement with various agencies, area stakeholders, and the public at large. The process included periodic meetings with area stakeholders such as the Rochester Riverside Convention Center, Rochester Gas & Electric, Rundel Memorial Library, Blue Cross Arena, and Thomson Reuters, among others. In July of 2008, a daylong visioning workshop was open to the public in an effort to obtain thoughts and ideas from members of the community. The results of this workshop went on to frame the vision of the Master Plan which has been translated into specific public improvement projects within the district. A public meeting was also held later in the process to present the finalized concepts for the public realm which are intended to be executed in three phases.

The Master Plan was also informed by an abundance of reference materials including historical documents, reports, and previous planning efforts that established a base understanding of the opportunities and constraints within the study area. From the reference materials available, the existing conditions of the district area was analyzed such as current land use, historic structures, natural features, and current traffic patterns. Successful developments in other cities were also analyzed and served as precedent examples of similar projects that have transformed downtown areas in other parts of the county.

Master Plan Addendum

An Addendum to the Historic Erie Canal Aqueduct and Broad Street Corridor Master Plan (the Addendum) was completed in April 2011 following almost two years of further analysis and meetings with major area stakeholders such as the Convention Center, Blue Cross Arena, Rundel Library, and Thomson Reuters. Upon completion of the Master Plan in May 2009, City of Rochester staff and their consultants began a series of meetings with these stakeholders in an effort to increase operational efficiencies and enhance the proposed designs that were outlined in the Master Plan, particularly with regard to possible mitigation measures. The full Addendum is included as Appendix C.

The action reviewed in this document involves the adoption of the resulting Master Plan by the City of Rochester. In an effort to spark economic development, and recognize the significant history of the Broad Street Corridor, the master plan establishes Broad Street as a significant public realm with ties to the original Erie Canal, and brands the surrounding area as Rochester's Historic Canal District. The public realm improvements are intended to be a catalyst for private investment throughout the southwest quadrant, and establish a unique identity for this portion of the Center City. The value of adopting the master plan as part of the City's comprehensive plan is that it will serve as a planning tool to guide future public and private development occurring within the district.

Generic Environmental Impact Statement

In addition to summarizing the master plan, this document serves as the Generic Environmental Impact Statement (GEIS) prepared pursuant to the State Environmental Quality Review (SEQR) regulations adopted and codified in 6NYCRR Part 617. The City of Rochester has been identified as lead agency in the review of this action. In accordance with Chapter 48 of the Rochester City Code the Rochester Environmental Commission is responsible for holding a public hearing on draft environmental impact statements for which the city is responsible.

The lead agency has made a determination to rely on a Generic Environmental Impact Statement (GEIS) to disclose and analyze potential environmental impacts and mitigation measures. In accordance with §617.10(a), a GEIS is a broader document than a site specific environmental impact statement. It discusses the logic and rationale for the choices advanced. It is based on conceptual information and identifies the important elements of the natural resource base as well as the existing and projected cultural features, patterns and character.

2. DESCRIPTION of the PROPOSED ACTION

The proposed action under review is the adoption of the Historic Erie Canal Aqueduct and Broad Street Corridor Master Plan, along with its Addendum, by the City of Rochester as part of the City's Comprehensive Plan for use in guiding future development and planning initiatives within the outlined study area.

The master plan recommends physical alterations to the existing appearance of the Broad Street corridor through improvements in the public right-of-way which will alter current traffic patterns. The creation of a new district encompassing the southwest quadrant to be known as Rochester's Historic Canal District, is intended to act as a catalyst for private development on underutilized properties through the creation of a unique urban neighborhood that capitalizes on the rich history of the Erie Canal through downtown. The City of Rochester as the project sponsor has made a concerted effort to maintain an open dialogue about the project and its potential impacts with adjacent property owners/tenants, real estate developers, and citizens at large through an extensive public involvement process.

2.1 LOCATION AND SURROUNDING AREA

The Canal District includes an approximately 3,000 linear foot segment of West Broad Street from South Avenue to West Main Street, and encompasses an area of approximately 70 acres. The area is clearly defined by three major routes: West Main Street, South Avenue, and Interstate 490 (also known as the Erie Canal Expressway).

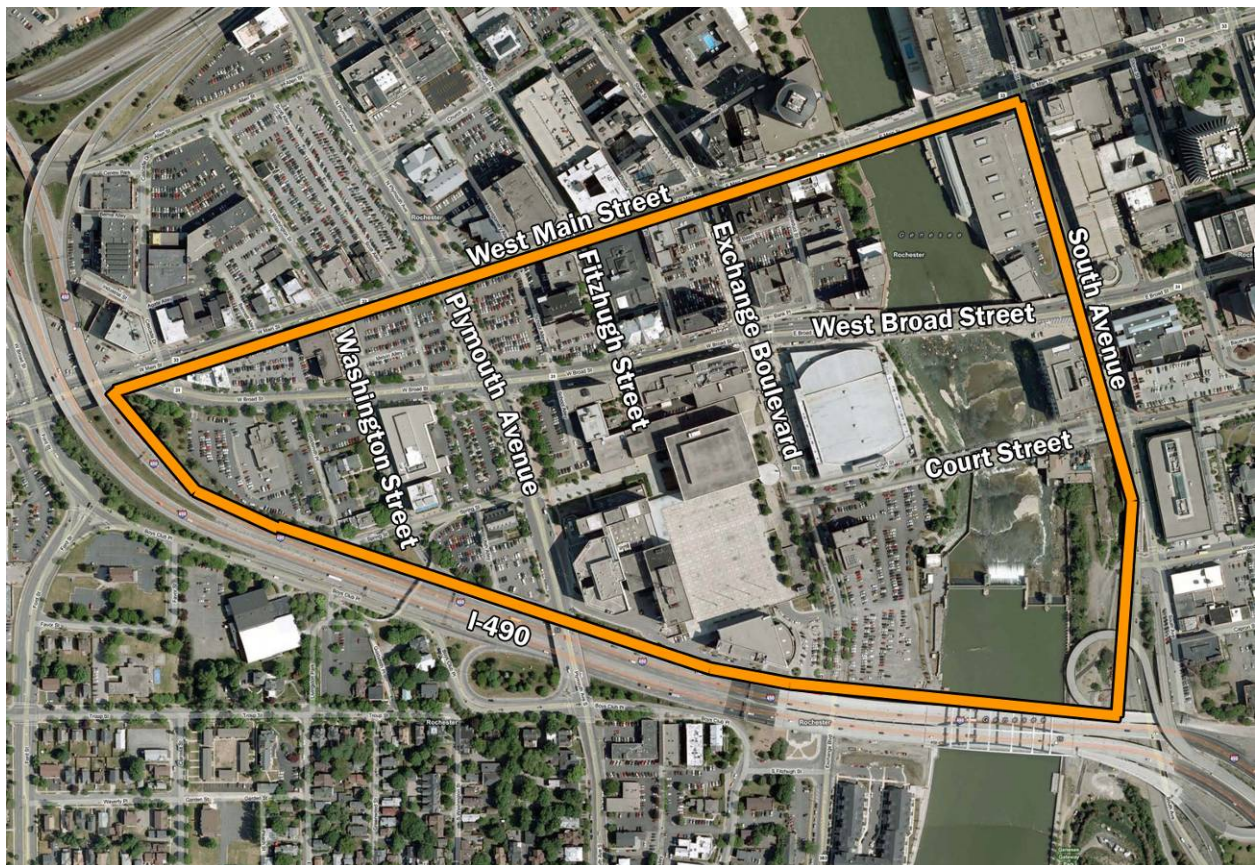


Figure 2.1
Proposed boundary of Rochester's Historic Canal District

West Broad Street is essentially broken into five city blocks within the Canal District. Starting from its intersection with South Avenue, Broad Street runs westward at the Genesee River to intersect with Exchange Boulevard, Fitzhugh Street, Plymouth Avenue, and Washington Street, before crossing over West Main Street. The area is comprised of a mix of cultural, governmental, religious, commercial uses, and associated parking lots. The district is more densely built-out in the blocks east of Plymouth Avenue, and contains large areas of surface parking lots west of Plymouth Avenue. The Broad Street Bridge, spanning the river between Exchange Boulevard and South Avenue, is anchored at three corners by City facilities: The Rochester Riverside Convention Center, Rundel Memorial Building of the Public Library, and the Blue Cross Arena. The Monroe County Civic Center occupies most of the area south of Broad Street between Exchange Boulevard and Fitzhugh Street, and a variety of structures occupy the blocks on the north side of Broad Street between Plymouth and the Genesee River. A large vacant parcel remains on the east side of Plymouth Avenue between Main Street and Broad Street where the Hotel Rochester once stood. The parcel on the southeast corner of Plymouth and Broad Street is the site of the recently completed Monroe County Crime Lab.

The density of the blocks west of Plymouth Avenue has been negatively impacted by building demolitions over the last several decades in an effort to generate ample off-street parking. In fact, only eight structures exist within this portion of the district west of Plymouth Avenue, the largest of which is a three-story building at the southeast corner of Washington Street and Broad Street which houses the Rochester City School District offices.

2.2 PROJECT DESCRIPTION

The primary initiative of the Master Plan looks to transform the southwest quadrant of downtown into a well branded Canal District that celebrates the rich cultural heritage of the Erie Canal. Using linear water features as a common thematic element, a series of public realm improvements along West Broad Street will establish a unique and vibrant atmosphere that will allow spark further private development within the surrounding district. The creation of a signature network of world-class open space will elevate the district, and provide strategically needed market edge. While the master plan does not recommend recreating a full working canal for boat traffic (mainly for budgetary reasons), water would be used in strategic areas to recall the path of the original Erie Canal and serve as a reference to Rochester's canal legacy. The master plan focuses on the transformation of the Broad Street Corridor from a typical vehicular street to a more pedestrian oriented destination with limited auto access. From the very beginning of the study process, determining a re-use of the historic aqueduct structure has been a primary focus. The Master Plan proposes to transform the aqueduct into a significant civic gathering space that is not only the focal point of the Canal District, but given its location over the Genesee River, a central feature for all of downtown.



Figure 2.2
Rendering depicting the potential build-out of the proposed Canal District looking to the southeast

2.2.1 Project Phases

The master plan suggests constructing the public realm improvements in three phases which would each expand on a water theme throughout the corridor.



Figure 2.3
Rendering depicting the long range master plan for the Canal District
including three phases of public realm improvements and potential infill development

Phase I:

The initial phase of the public realm improvements focuses on the segment of Broad Street between South Avenue and Exchange Boulevard, which includes the historic Erie Canal aqueduct. The aqueduct would be the centerpiece of Phase I implementation, which recommends removal of additions made to the 1842 stone aqueduct when the canal was rerouted in 1919, including removal of the Broad Street Bridge road deck (last rebuilt from 1972-1974), and 1920s era arches which enclosed the subway route and support the upper road deck. The arch supports constructed during the 1920s conversion are comprised of concrete that was cast in place and finished with a stone veneer on the outward walls facing the river. The stone veneer is planned to be reclaimed, and utilized in the streetscape upgrades proposed for the corridor. Restoration of the aqueduct would return it to its canal era look. The Master Plan proposes that the aqueduct be retrofitted with an engineered liner so that it could once again hold water. The current use of the Broad Street Bridge as a vehicular bridge would be terminated, and the aqueduct would be “re-watered” to serve as a grand gathering space that also references the Erie Canal. A pedestrian esplanade would flank the linear water feature, and urban plazas would be created at either end of the aqueduct, turning the space into a significant pedestrian realm.

The restored aqueduct will create an exciting link between the Rochester Riverside Convention Center and Rundel Memorial Library located at the east end of the aqueduct, and the Blue Cross Arena at the west end. Two new urban plazas would anchor each end, and would further enhance the pedestrian oriented atmosphere through the creation of civic gathering space. The Convention Center and Library will have the opportunity to program the plaza at South Avenue while the Blue Cross Arena will have the Exchange Boulevard plaza at its front door. It is intended for this space to be utilized by the adjacent cultural facilities, but also serve as a central hub for events and gatherings in downtown as a whole. Retail and restaurant space will be constructed adjacent to the plaza at South Avenue, as it would become a gateway to a newly created Canal District. Given its location nearly in the center of downtown, the aqueduct is in close proximity to downtown hotels, the Midtown Plaza redevelopment sites, and office buildings which host thousands of office workers every week day. That combined with its proximity to the City's largest entertainment venues makes it an ideal location for a major civic gathering space.

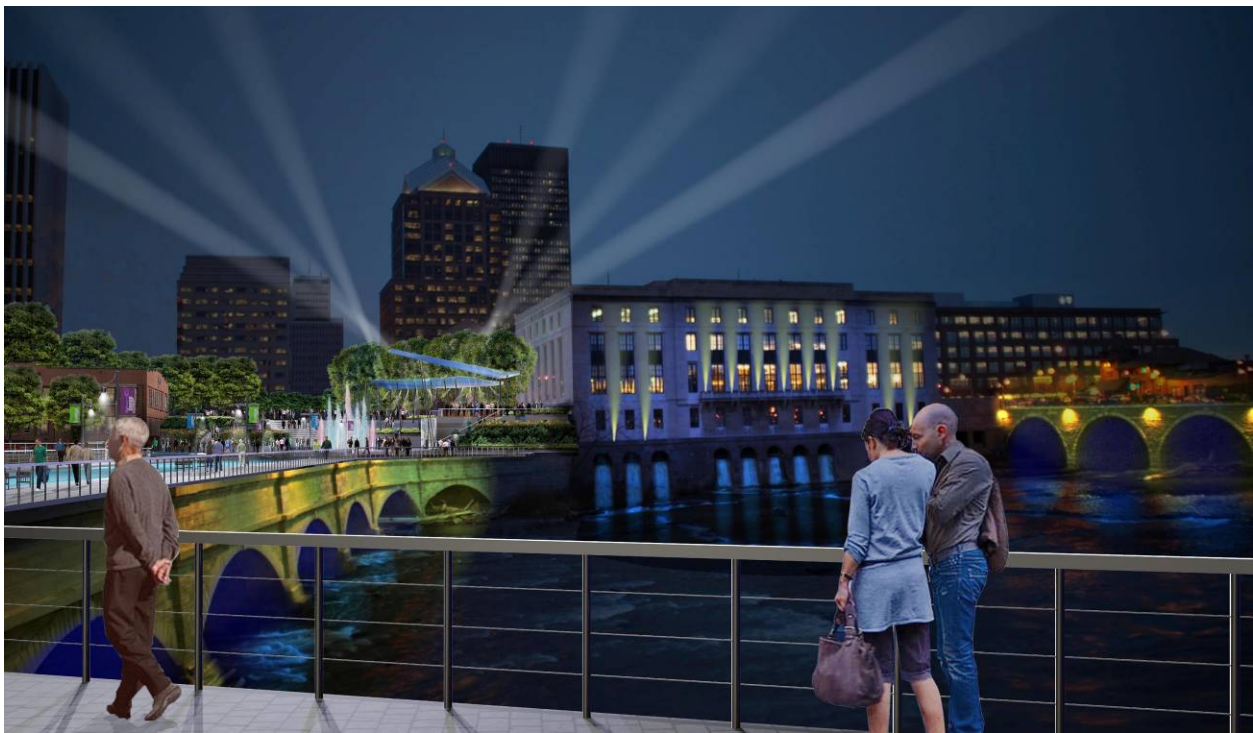


Figure 2.4
Photo rendering of the restored aqueduct
Looking east towards South Avenue



Figure 2.5
Photo rendering of the restored aqueduct looking towards the Rundel Memorial Library

Phase 2:

The next phase of the public realm improvements focuses on the creation of a grand urban boulevard that will be constructed along West Broad Street from Exchange Boulevard to Washington Street. This three block segment will remain open to traffic, so as to offer a parallel alternative to Main Street. In order to continue the theme of marking the original alignment of the Erie Canal, a central median of a generous width will be constructed down this three block segment of Broad Street that will include a linear water element with fountains. One vehicular travel lane and one lane of on-street parking will be provided on either side of the median. Reducing what is currently a four lane roadway with on-street parking, to a two-lane roadway with on-street parking, will allow through traffic to be maintained and provide space for construction of central median. In addition to the linear water element, street trees and lighting upgrades will be incorporated, as well as upgrades to the existing sidewalk and crosswalks. The intent is to re-energize this segment of Broad Street by creating a “boulevard of fountains” that will give vibrancy and movement to the corridor. These enhancements will further the water-based open space network that is established in Phase 1, and will provide an improved public realm to catalyze private investment on neighboring streets.



Figure 2.6
Photo rendering looking west down Broad Street at Plymouth Avenue
depicting potential infill development and street improvements

Phase 3:

The third phase of public realm improvements take place between Washington Street and West Main Street and will introduce the last in a series of water elements planned for the Canal District. This segment of roadway will be closed to auto traffic, as is proposed for Phase 1, and will also be re-watered in order to serve as a representation of the historic Erie Canal. Pedestrian promenades will anchor either side of the water basin, just as planned at the aqueduct, and fountains will animate the water to provide a substantial anchor to the west end of the district. The Phase 3 water element will recall the turning basins of the original Erie Canal, and the fountain will add a dramatic punctuation to this west basin, acting as an axial focal point along West Broad Street.



Figure 2.7
Rendering of the water basin planned between
Washington Street and West Main Street

2.2.2 Supporting Elements

The Erie Canal is one of the most historically significant developments in the City's history, and the public realm improvements will reestablish its civic importance. In addition to the main components designed to transform Broad Street, a series of supporting elements are also planned for other parts of the district.

Aqueduct Commons

At the east end of the restored aqueduct, adjacent to South Avenue, a large open space is planned that will include a significant water feature. Upon removal of the Broad Street Bridge road deck to restore the aqueduct, a grade change of approximately 15 feet will be left between South Avenue and the aqueduct plaza. In order to tie the aqueduct to South Avenue, the plaza adjacent to South Avenue will include a series of spaces that can accommodate restaurant and/or retail uses that will help to bring amenities and services to the plaza. The area is proposed to be called Aqueduct Commons, and will include a large stair/ramp connection to South Avenue providing uninterrupted pedestrian access.

War Memorial Plaza

The War Memorial Plaza will anchor the western end of the aqueduct waterway. The plaza creates an outdoor counterpart to Blue Cross Arena's lobby, and a reworked arena entry would allow large portions of the glass wall to recede and create an integrated public space that engages the street. The plaza paving will articulate and outline the original boundary of the Erie Canal in order to signify its continued path west of the aqueduct.

Public Green Spaces

A series of linear green spaces and pocket parks are recommended along the corridor where possible. These spaces will take on a varying character to provide seasonal interest and opportunities for public art. The strategic distribution of green space allows almost every development block within the district be adjacent to, or near, some form of open space.

Genesee Riverway Trail

The master plan recommends specific improvements within vicinity of the aqueduct to make direct connections to the existing Genesee Riverway Trail. Currently, the existing trail runs along the eastern face of the Blue Cross Arena and stops when it reaches the Broad Street Bridge. Lowering the surface of Broad Street in order to restore the aqueduct will allow the Riverway Trail to continue northward. Since the Thomson Reuter building, also known as the Aqueduct Building, was constructed right to the river's edge, it is recommended that the Riverway Trail be continued northward along Aqueduct Street, which is planned for improvements. Once reaching Main Street, the Riverway Trail can connect to the existing river promenade along Crossroads Park.

Rochester Heritage Trail

Currently under construction, the Rochester Heritage Trail runs along the sidewalk on the north side of West Broad Street and is delineated by a stripe embedded in the sidewalk that links to significant historic buildings and sites within the district. The trail stretches from the Erie Canal Aqueduct through along West Broad Street and then heads down West Main Street Madison Street into the Susan B. Anthony District. The Heritage Trail will be incorporated into the public realm improvements planned throughout the Canal District.

Broad Street Tunnel Parking

The remaining portion of the Broad Street Tunnel, between Exchange Boulevard and West Main Street, is proposed for use as an underground parking facility. Loss of parking that will occur as part of the planned public realm improvements and infill development may be mitigated

through the adaptive reuse of the tunnel for public parking. A conceptual parking layout for the tunnel indicates the potential accommodation of approximately 283 parking spaces.

2.2.3 Proposed Land Use

Leveraging the assets of adjacent areas such as Main Street, the Midtown Plaza redevelopment site, and residential communities such as Corn Hill, the new Canal District is proposed as a mixed-use urban neighborhood of offices, retail, housing, and civic open space. Market demand for the next fifteen years has been analyzed, however, development densities will certainly flex based on the economy, and other projects planned around downtown. The Master Plan Market Analysis (Appendix B) anticipates approximately one million square feet of development over the next fifteen years.

Individual blocks were tested to confirm that the market-driven program could be accommodated, and parcels were conceptually combined to provide development efficiencies anticipated in the market study, and existing structures of note were incorporated into the overall plan. The market driven program consists of four categories: retail, residential, office and hotel.

Retail

A common characteristic of all vibrant cities is a successful retail core. Recognizing the increased competition for viable retail locations outside of downtown, the location and concentration of retail within the center city must be carefully orchestrated to insure success. A judicious and strategic approach to locating retail within the city center must be established. Given the realities of the market demand over the next fifteen years, incremental steps must be undertaken to avoid missteps and build upon small initial successes in a sensitive retail arena.

The demand for retail goods and services in downtown Rochester is derivative of the purchasing power of downtown residents, office workers and visitors. The retail component of the program has been developed to provide a variety of shopping, dining and entertainment choices to fit the market gaps. Convenient on-street parking is expected to complement discrete existing and new parking areas to meet the demand. A parking ratio of 3 spaces/1,000 gross square foot was considered.

The master plan recommends Main Street remain the primary retail street within downtown in order to maintain what has always been the primary corridor for retail in the center city. Currently the Main Street corridor shows varying signs of activity. A strengthened Main Street will strategically connect major districts of the downtown area. With that concept as the basis, the master plan suggests the majority of retail activity within the study area occur along Main Street.

The master plan recommends retail be included in phase 1 of the proposed aqueduct project at the newly formed Aqueduct Commons, and along the block of Exchange Boulevard between Main Street and the aqueduct. Retail opportunities at Aqueduct Commons would include a restaurant, as well as the potential for a relocated Rochester Visitors Bureau. These initial retail locations totaling approximately 27,000 square feet will also synergize with the redevelopment of the Midtown Plaza redevelopment area, two blocks to the east on Broad Street.

Larger sized retail opportunities are recommended along Main Street between Fitzhugh Street and Cascade Drive as new full block developments are contemplated as the retail and residential markets mature. While only the southern side of Main Street is within the proposed Canal District, the Master Plan recommends the development of retail along both sides of Main Street to reinforce a strong retail corridor.

Residential

The Canal District has multiple development opportunities for new housing units to emerge. The potential exists for the construction of apartments and condominiums in a variety of sizes to meet market demand and the expanding student, young professional, and empty nester populations seeking an urban lifestyle. New residential development is recommended primarily west of Plymouth Avenue. The master plan also suggests that the rehabilitation and conversion of underperforming or obsolete office space into residential units would help further establish and enhance the community, and expand its market reach with a diversity of product.

Residential buildings will define the street, and line the newly watered canal to create a vibrant pedestrian-oriented place. It is an important recommendation of this Master Plan that all surface parking be shielded from sidewalks and green space. Parking areas and structures should be lined with retail at the designated locations and with residential units at and above the street level. This typical urban development configuration effectively shields parking from view and provides an “eyes on the street” approach to security.

Residential uses are located to allow for a variety of units types and configurations taking advantage of views of the street, public green spaces, and the waterfront. Approximately half of the residential units will be integrated into developments rising above retail spaces along Main Street, which is the historic retail corridor of downtown Rochester. This traditional urban mix of uses insures easy access to all residential shopping needs as well as increased safety for pedestrians.

Residential land uses strategically border all significant open space and green space in order to enhance value and catalyze development. The signature Erie Canal inspired waterway, and the series of linear green spaces alongside, create a unique and defining amenity of the Canal District. Units along the Canal will create a desirable unit type option within the Rochester area, forecasted to enhance market capture, and eventually increase rental and sales rates for the district.

The economic analysis indicates that four-story wood frame “stick-built” construction would provide the most reasonable development model for new construction. This type of wood frame construction was used at Corn Hill Landing on the west bank of the river, and is currently being used at Erie Harbor on the east bank. In order to provide the anticipated housing demand over the next decade, full block developments of four story stick-built buildings encapsulating concrete framed parking decks will provide the most efficient configuration to meet the forecasted demand. Each block is recommended to accommodate parking in its center; removing unsightly parking lots and structures from the street fronts, and giving residents priority views of the streets and other public spaces. A parking ratio of one space per dwelling unit was considered in the master plan illustration. While designated residential parking will exist, additional parking may be available for public use, and will minimize the impact to existing parking which will be displaced by development.

Office

While the Four Corners and Tower Districts should remain the primary corporate addresses within downtown, the relatively stable office environment of the Canal District, fueled by the city school offices and Monroe County Civic Center, provides a sound basis for an incremental increase of secondary office space.

Should office space be required, the block on Exchange Boulevard between Main Street and the Broad Street, just north of the Time Square Building, seems most appropriate to leverage and synergize with existing office uses. This location could accommodate approximately 58,000 square feet of office space with retail at street level. Parking should be accommodated on-site.

Hotel

Although the hotel sector is a fluid convention-oriented market that is complicated by the concentration of existing aged hotel rooms in downtown, the Master Plan considers the potential for the Canal District to accommodate a new downtown hotel. Located in the eastern part of the district, a new hotel would have close proximity to the Riverside Convention Center, Blue Cross Arena, and downtown offices.

The master plan illustrates a 280 room hotel which could be an extended stay or guest suites concept, or a product geared towards a younger demographic. In addition to rooms, the hotel could also support 25,000 square feet of meeting and conference spaces.

2.3 PERMITS AND APPROVALS

The following Table 2-1 summarizes agency permits and approvals that may be required in the course of adoption and implementation of the Plan.

Agency	Permit or Approval
City of Rochester	Adoption of Comprehensive Plan Amendment
	Branding of new district
	Acceptance of traffic mitigation measures
MCDOT	Advisory review of Traffic Planning
SHPO	Cultural Resources
NYSDOT	Plan Funding
FHWA	Plan Funding

Table 2-1

2.4 SUMMARY OF ENVIRONMENTAL ASSESSMENT FOR MAJOR PROJECT COMPONENTS

As this is a DGEIS for the adoption of an area plan, Table 2-2 provides an overview of the major plan components and the extent to which this document covers the environmental assessment of those pieces.

	Phase 1 Public Improvements	Phase 2 Public Improvements	Phase 3 Public Improvements	Public Parking Facilities	Private Development Projects
Land Use, Zoning, and Public Policy	Covered in full	Covered in full	Covered in full	Covered in full	Needs site specific assessment
Community Facilities	Needs Supplemental Coordination during Final Design	Needs Supplemental Coordination during Final Design	Needs Supplemental Coordination during Final Design	Needs Supplemental Coordination during Final Design	Needs site specific assessment
Cultural Resources	Needs Supplemental Coordination during Final Design	Covered in full	Covered in full	Covered in full	Needs site specific assessment
Visual Character	Covered in full	Covered in full	Covered in full	Covered in full	Needs site specific assessment
Fiscal Impacts	Covered in full	Covered in full	Covered in full	Needs Supplemental Analysis	Needs site specific assessment
Vegetation and Wildlife	Covered in full	Covered in full	Covered in full	Covered in full	Covered in full
Wetlands and Surface Hydrology	Needs Supplemental Analysis	Covered in full	Covered in full	Covered in full	Covered in full
Topography and Soils	Covered in full	Covered in full	Covered in full	Needs Supplemental Coordination during Final Design	Needs site specific assessment
Infrastructure and Utilities	Needs Supplemental Coordination during Final Design	Needs Supplemental Coordination during Final Design	Needs Supplemental Coordination during Final Design	Needs Supplemental Coordination during Final Design	Needs site specific assessment
Traffic and Parking	Covered in full	Covered in full	Covered in full	Covered in full	Covered to Build Out Thresholds
Noise	Covered in full	Covered in full	Covered in full	Covered in full	Covered to Build Out Thresholds
Air Quality	Covered in full	Covered in full	Covered in full	Covered in full	Covered to Build Out Thresholds

Table 2-2

2.4 SUMMARY OF IMPACTS

Table 2-3 provides a summary of the impacts of the proposed action which are further elaborated in Section 3 of this DGEIS.

Element	Positive Impacts	Adverse Impacts	Mitigation	Unavoidable Impacts
Land Use, Zoning, and Public Policy	District establishment and public realm enhancements	None	None	None
Community Facilities	Potential increased tax base	Possible need for additional services	None	Possible need for additional services
Cultural Resources	Highlight of Erie Canal legacy thorough area	None	None	None
Visual Character	Significant upgrade to public realm	None	None	None
Fiscal Impacts	Increased tax base	Improvement cost and maintenance	None	Increased Maintenance Costs
Vegetation and Wildlife	None	None	None	None
Wetlands and Surface Hydrology	None	None	None	None
Topography and Soils	None	None	None	None
Infrastructure and Utilities	None	Relocation of some utilities	None	Relocation of some utilities
Traffic and Parking	Reuse of tunnel as underground parking	Disruption of current circulation	Additional turning lanes on adjacent streets	Removal of Broad Street Bridge to traffic
Noise	None	Increased traffic, construction/development	None	Increased traffic, construction/development
Air Quality	None	Dust during construction - Increased traffic	Dust control measures during construction	None

Table 2-3

3. EXISTING CONDITIONS, ANTICIPATED IMPACTS and PROPOSED MITIGATION

The following chapter reviews the potential adverse environmental impacts of the proposed project. The general framework for each impact is to: (1) study and describe the existing conditions in the area; (2) project these conditions to a future analysis year without the Project (also known as the “No Build” condition); (3) assess potential environmental impacts of the proposed Project on the future No Build condition (also known as “Potential Impacts”); and (4) present and evaluate potential mitigation measures to mitigate any significant adverse environmental impacts.

The proposed Canal District will rebrand the southwest quadrant of downtown, and encourage private development there; however, the series of significant public realm improvements along Broad Street will change the existing appearance of that streetscape, and also alter existing traffic patterns. The assessment of impacts included in this section include all three phases of the planned public improvements along Broad Street and the potential for adjacent development projects that may occur as a result of the public infrastructure improvements. These projects are intended to occur over a long period of time; therefore, any subsequent impact to the surrounding urban environment would take place in stages.

The area encompassed by the Canal District boundaries has seen significant change since the incorporation of the City, more than 175 years ago. As is common in an urban core, the building sites within the Canal District have been redeveloped several times over the past 100 years. Most of the land within the district accommodated single family homes in the mid to late 19th Century, some of which have way to commercial building in the early 20th Century as downtown grew. Large swaths of the district were cleared in the mid 20th Century during Urban Renewal, and today, there exists representation from all of these eras. The proposed public improvements along Broad Street represent the next phase in the evolution of a corridor that was first established in 1825 with the Erie Canal, and has been through periods of change ever since.

This DGEIS sets forth specific conditions or criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQR compliance. This may include thresholds and criteria for supplemental EIS documents to reflect specific significant impacts, such as site-specific impacts, that were not adequately addressed or analyzed in the Generic EIS. The following table summarizes the projects, and status of environmental review for each impact area.

Projects Covered by this DGEIS:

- Public Realm Improvements - all three phases.
- Public parking facilities – underground parking in the Broad Street Tunnel and a possible new above ground public parking garage.
- Private Infill Development – as projected by the Master Plan Market analysis.

3.1 LAND USE, ZONING, and PUBLIC POLICY

This section describes existing land use and zoning conditions within the project area. It anticipates and evaluates those changes to land use and zoning that may occur independently from the proposed public realm improvements.

3.1.1 Existing Conditions

The Canal District is predominantly comprised of office buildings, civic facilities, and associated parking areas. No residential presence currently exists, however, plans are already in progress to rehabilitate some existing vacant structures for mixed-use, including residential. A large number of surface parking lots are scattered throughout the area which have diminished the sense of a dense, pedestrian friendly downtown environment.

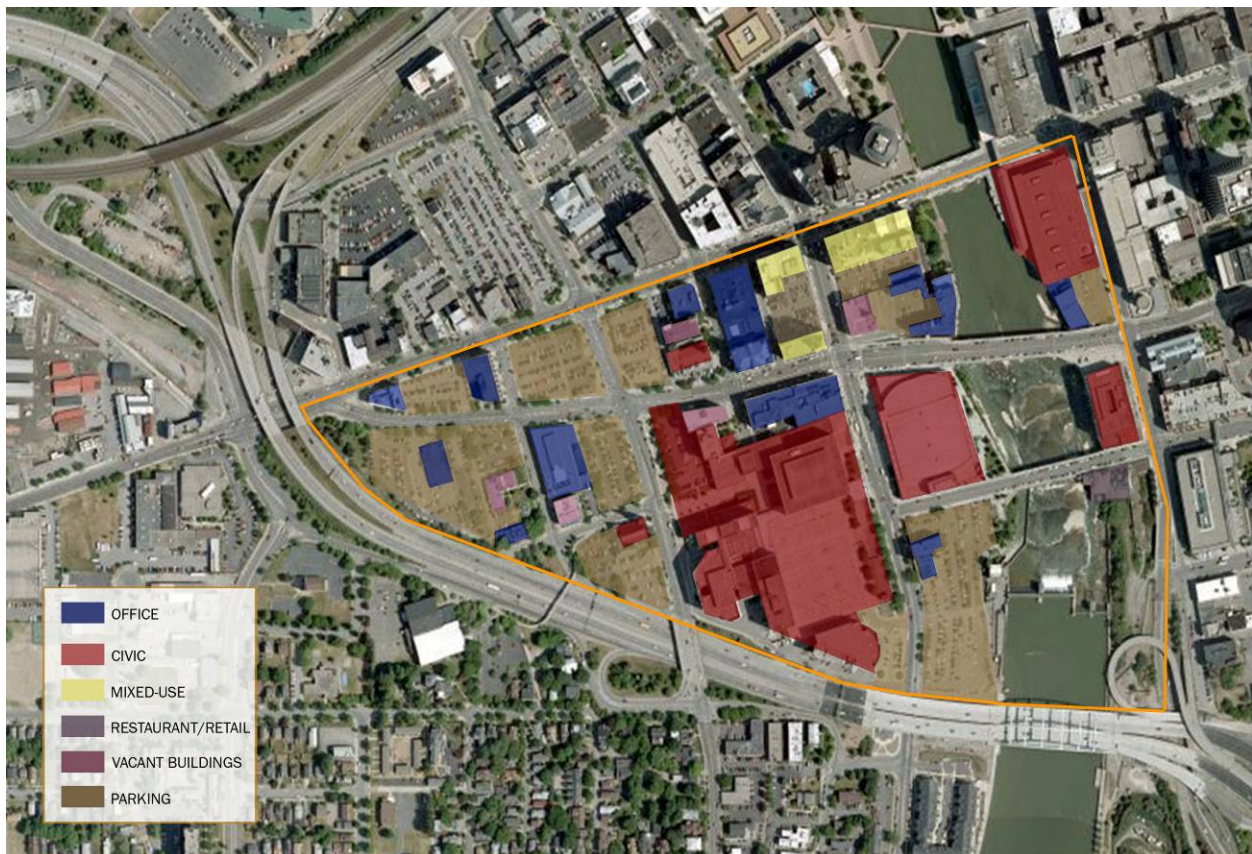


Figure 3.1
Existing land use

Office:

A large percentage of the existing office space within the district is occupied by County government including the Monroe County Office Building at Main Street and Fitzhugh Street and the Civic Center complex (bounded by Plymouth Avenue, Broad Street Exchange Boulevard and I-490) which includes county offices, the Hall of Justice, Monroe County Jail, and the new Monroe County Crime Lab. The City of Rochester Public Safety Building is also located at the Civic Center complex, and Rochester City School District maintains their headquarters at the corner of Broad Street and Washington Street. In addition to the large presence of government offices, the district is home to a growing private office market. Thomson Reuters maintains a large presence in their complex of buildings at 50 West Broad Street between Aqueduct Street and the Genesee River, and other significant office buildings include the Gannett Building, Times Square Building, Irving Place (Old City Hall), and several building along West Main Street such as the Wilding Building and Four Corners Building. Much of the office space in the district exists east of Plymouth Avenue; however, Nothnagle has recently relocated their headquarters from the Town of Brighton to a pair of formerly vacant building at the intersection of Broad Street and Main Street which is helping to anchor the western end of the district.

Civic Facilities:

In addition to a large office presence, the district is home to some of the largest civic oriented facilities in the region. The area around the Broad Street Bridge is anchored by the Rochester Riverside Convention Center and Rundel Memorial Library on the east bank of the river, and the Blue Cross Arena at the War Memorial on the west. Two historic churches are also located within the district and include St. Luke's Church on Fitzhugh Street (the oldest public building in Rochester) and the First Presbyterian Church on Plymouth Avenue.

Residential:

The Center City Southwest is the only quadrant of downtown that has no residential presence. However, two proposed projects plan to change that by incorporating rental apartments into the mix. 44 Exchange Boulevard, a five story building constructed as bank offices in the 1960s, is being converted to mixed-use with residential apartments on its four upper floors, and commercial space on the ground floor. The Academy Building on Fitzhugh Street is also planned for conversion to mixed-use and will include a similar formula of apartments on upper floors and commercial space below.

Restaurants/Retail:

Several of the office buildings that line West Main Street within the district include some form of restaurant and/or retail space on the ground floor. Much of the existing food establishments cater to the office market, primarily a lunch crowd, and operate Monday through Friday during daytime hours. Ground floor retail space within the district is dominated by bank branches, and other forms of retail are currently limited. Dinosaur Barbeque, located on Court Street across from the Rundel Memorial Library serves as an example of a restaurant that thrives within the district during both lunch and dinner, and serves more than just the adjacent office market.

Parking:

The area includes a large amount of surface parking lots, especially in the zones around Plymouth Avenue, and south of the Blue Cross Arena. A large underground parking facility is located beneath the Civic Center Plaza which primarily serves workers in that complex during the day. That garage does not have capacity for all of the parking demand within the district, therefore, off-street surface lots, and on-street parking spaces are also relied upon.

Vacant Buildings:

The district contains a few vacant buildings, some of which already have redevelopment plans such as 44 Exchange Boulevard, and the Academy Building. Another vacant building, the Terminal Building located to the east of the new County Crime Lab, is owned by Monroe County which may have plans for the structure in the future.

Zoning:

The Canal District falls under the City of Rochester’s specialized Center City Zoning Code. Since the Center City code is broken into a series of sub areas, each with their own applicable regulations, the district includes more than one zoning area. In total, three separate Center City Zoning sub areas can be found within the boundaries of the Canal District. The properties along Main Street fall under specific Main Street zoning regulations, properties along the river are subject to specific Riverfront regulations, and the remaining properties are subject to the base regulations. The Center City Code does not regulate use, but is rather a form based code with an intent to drive an urban style of development that promotes diversity and variety within the public realm, promotes street level activity, and enhances pedestrian circulation.

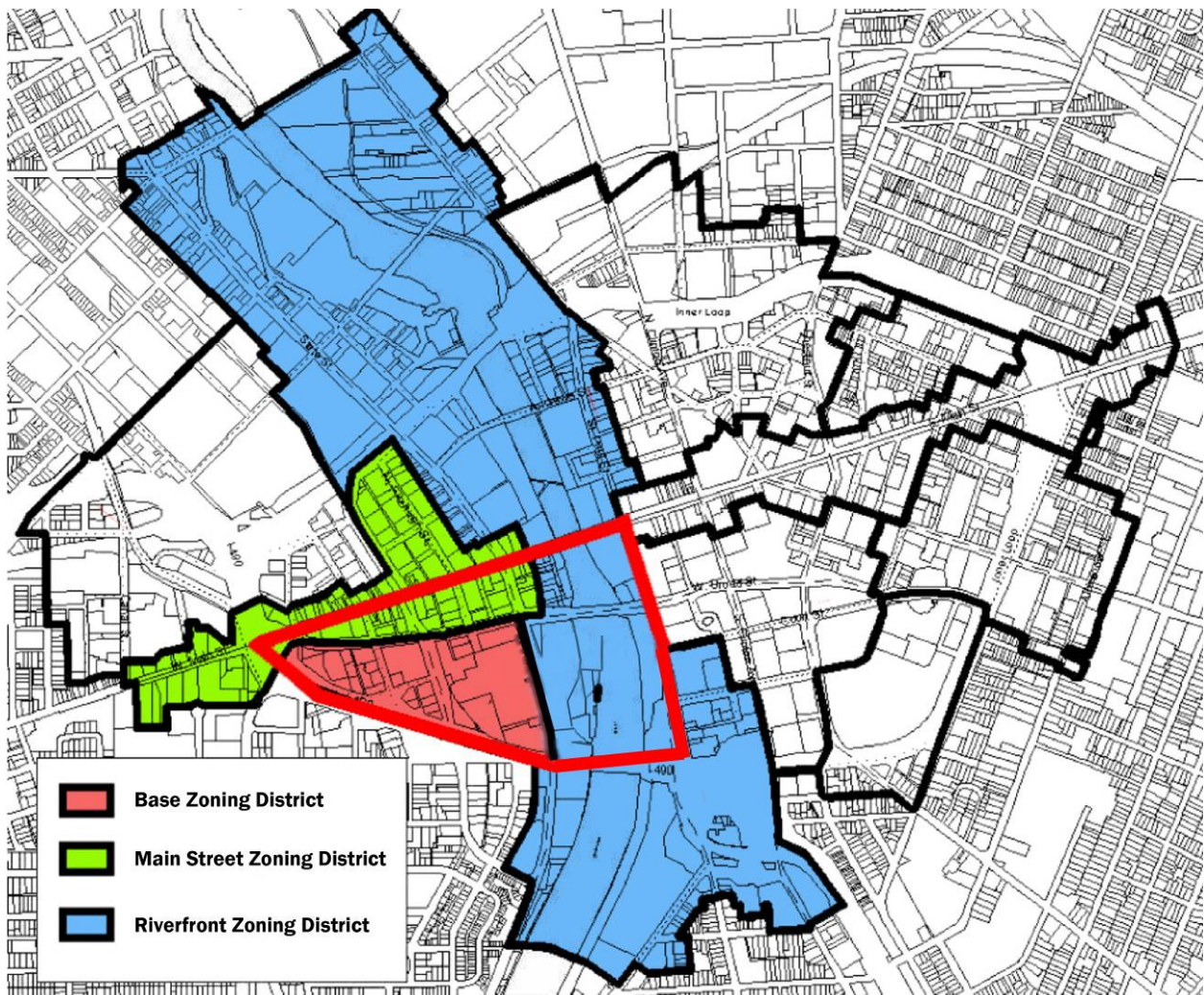


Figure 3.2
Existing zoning

3.1.2 No Build Conditions

Under the no build condition, the existing guiding documents, including the City of Rochester's Comprehensive Plan, and guidelines and standards outlined in the Zoning Code are unchanged.

3.1.3 Potential Impacts

The proposed Canal District is an effort to rebrand the southwest quadrant in a way that builds upon the rich cultural history of the area. One of the goals of that process is to encourage infill development by private developers in order to create greater density and introduce a strong residential component.

All proposed uses are permitted and the development envisioned generally complies with the standards required. It is not necessary for the Canal District to include the creation of a specialized zoning district, as the three existing zoning districts that overlay the area include specialized regulations that ensure proper development in the future.

Utilizing existing public amenities such as the Genesee River is another opportunity to enhance the public experience of the Canal District. Better connecting the district to the river, its congruent Genesee Riverway Trail and Heritage Trail Systems, and to the retail opportunities along Main Street will benefit residents and business owners as well as entice visitors.

3.1.4 Mitigation

The intent of this action is to establish a strong identity for the southwest quadrant of the Center City which will be achieved through the establishment of Rochester's Historic Canal District. No changes to the Center City Code are being suggested, as the underlying code is sufficient to guide the look of the future development. All parcels within the proposed district are appropriately zoned as "Center City District", which does not dictate use, but rather scale, form and, placement of buildings. The Center City Master Plan, completed in 2003, made a specific recommendation with regard to the Broad Street Aqueduct. The Center City Plan recommended to "redevelop the Broad Street Aqueduct as a pedestrian passageway and historic interpretive attraction". The proposed public realm improvements do not significantly change current land use within the proposed district. The Broad Street Corridor will remain public-right-of way, and serves as a point of connection across the river for non-motorized users. As the impacts identified are positive ones, establishing a brand, look, and land use pattern in a currently underutilized portion of Center City, no mitigation is proposed.

The Center City Master Plan also includes recommendations that promote mixed-use infill development throughout downtown. The Center City plan made specific recommendations for development along Plymouth Avenue between Main Street and Broad Street with uses that "include neighborhood services that support residential development and potential new employment centers". Any future development occurring within the district will be subject to supplemental environmental review and approvals, and is not intended to be comprehensively covered by this action.

3.2 COMMUNITY FACILITIES

3.2.1 Existing Conditions

A variety of community facilities are located within downtown Rochester in close proximity to the project area, including police services, fire protection, ambulance services, schools and refuse/recycling services.

Police Services

The City of Rochester Police Department (RPD) provides police service throughout downtown and the surrounding City. The RPD is divided into two bureaus: Operations and Administration.

The Operations Bureau is responsible for providing direct police services to the public, including the protection of life and property, protection of the constitutional guarantees, reduction of opportunities for the commission of crime, resolution of conflict, identification of criminal offenders and criminal activity, and apprehension of offenders. The Operations Bureau is also responsible for departmental coordination of the City's Neighborhood Service Center (NSC) project. Department personnel are assigned to NSC in each of the designated planning sectors throughout the City and work with personnel from other City departments to address quality of life concerns. The uniformed Operations Bureau consists of the Patrol Division West, Patrol Division East, and the Special Operations Division. Patrol Division West includes portions of the City west of the Genesee River and all areas within the inner loop, Patrol Division East includes portions of the City east of the Genesee River excluding the inner loop, and the Special Operations Division is comprised of the RPD Bomb Squad, Scuba Squad, Emergency Task Force, Hostage Negotiation Team, and Mobile Field Force. The entire project area falls within the inner loop, therefore, is within the jurisdiction of the Patrol Division West.

The Administration Bureau is responsible for providing the administrative support services necessary for the effective operation of the RPD. Subdivisions of this Bureau are responsible for managing the Department's resources to meet the needs of the RPD in the most effective and efficient manner possible. The Administration Bureau consists of the Budget Section and Personnel Section, Technical Services Section, Professional Development Section, Background and Recruitment, Family and Victim Services Section, and Animal Services.

The Monroe County Sheriff's Department and NYS Police also provide police services within the City, and while they have legal authority and jurisdiction to enforce laws within the City, their services are generally provided on a City requested basis.

Fire Protection

The City of Rochester Fire Department (RFD) has over 500 uniformed and non-uniformed members, which represent the ethnicity of the community as a whole. The RFD provides fire protection, but also responds to numerous emergency situations, including vehicle extrications, medical emergencies, high-level rescue, hazardous materials incidents, structural collapse, and swift water rescue, among others. The RFD is comprised of 18 fire companies, located in 15 neighborhood fire stations.

Ambulance Service

Ambulance service in the City of Rochester is provided by Rural/Metro Medical Services.

3.2.2 No Build Conditions

Without the proposed project, there are no anticipated impacts to police, fire, ambulance or the school system.

3.2.3 Potential Impacts

The adoption of the master plan for the study area will not in itself have any impact to emergency or community services. However, through removal of the Broad Street Bridge as a vehicular link, existing circulation will be altered. In addition, with the anticipated development that could result if major public investments are made, there would be the potential for increased need for emergency services and impact on schools if residential uses are developed within the study area.

3.2.4 Mitigation

Mitigation for the potential impact to emergency services and schools would be offset by property taxes, school taxes, and sales tax for commercial facilities. Final design of any portion of the proposed public improvements would incorporate input from emergency service operators to ensure adequate access. Furthermore, impacts to traffic and circulation will be mitigated through the addition of designated turning lanes on other roadways in the vicinity of the aqueduct.

3.3 CULTURAL RESOURCES

This section considers the potential for significant adverse impacts of the proposed project on cultural resources, which include historic and archaeological resources. The study area for archaeological resources is the project area itself where disturbance from excavation and construction can be anticipated should a public or private project be progressed.

3.3.1 Existing Conditions

A significant number of historic buildings from the later nineteenth and early twentieth century remain throughout the Broad Street Corridor to this day. The renaissance revival Monroe County Office Building (formerly the third Monroe County Courthouse) sits on the site of two early courthouse buildings, St. Luke’s Church, a fantastic example of the gothic revival and Rochester’s oldest public building, the Greek revival Jonathon Child House constructed for Rochester’s first mayor, and the Art Deco Times Square Building whose cornerstone was laid on the day the stock market crashed in 1929 are just some of the examples of rich architectural variety found within the district. Many of the buildings are listed on the National Register of Historic Places, or have City of Rochester local landmark designation.

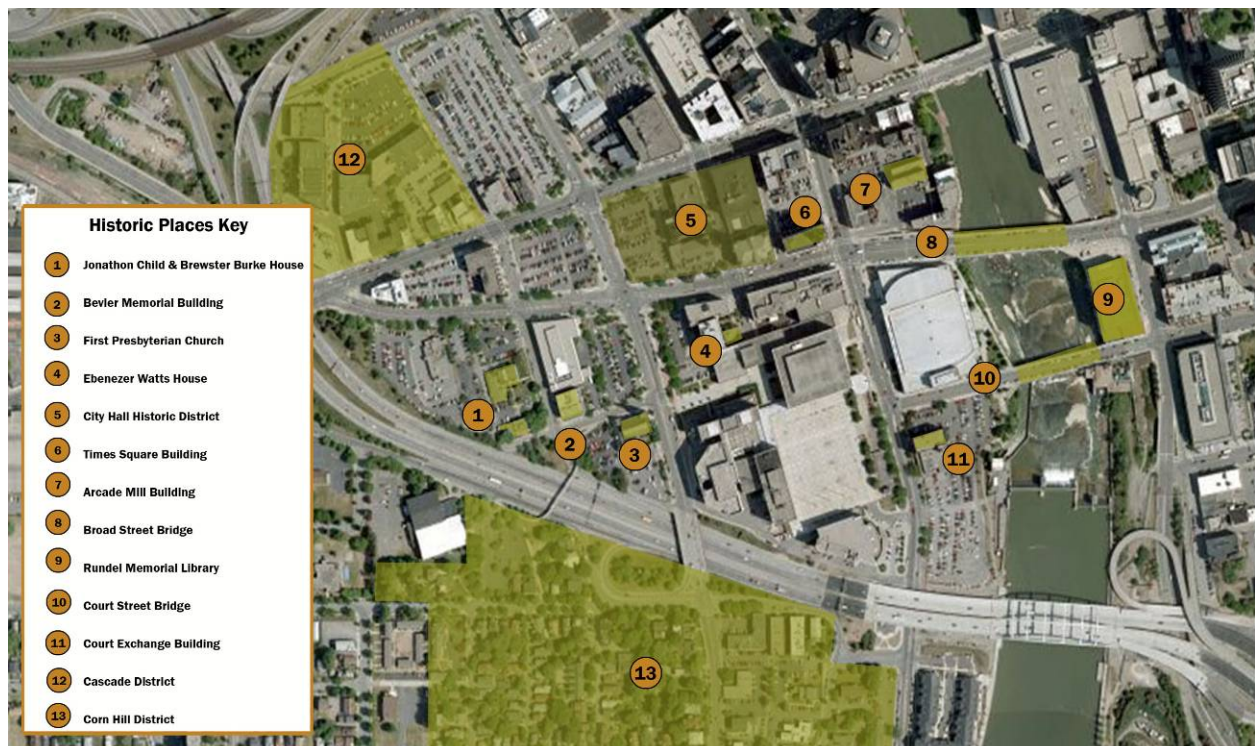


Figure 3.3
Existing historic districts and landmarked structures

Broad Street Corridor properties individually listed on the National Register of Historic Places:

1. Arcade Mill (added 1985) 26-32 Aqueduct Street.
2. Bevier Memorial Building (added 1973) Northeast corner of Washington and Spring Streets.
3. Jonathan Child House (added 1971) 37 Washington Street.
4. Brewster Burke House (added 1971) 130 Spring Street.
5. Court Street Bridge (added 1984).
6. Erie Canal Second Genesee Aqueduct (added 1976) Commonly referred to as the Broad Street Aqueduct and Broad Street Bridge.
7. First Presbyterian Church (added 1973) 101 South Plymouth Avenue.

Broad Street Corridor properties individually listed as City of Rochester Landmark Properties:

1. Jonathan Child House - 35 South Washington Street.
2. St. Luke's Church - 17 South Fitzhugh Street.
3. Brewster Burke House - 130 Spring Street.
4. Ebenezer Watts House - 47 South Fitzhugh.
5. First Presbyterian Church - 101 South Plymouth.
6. Erie Canal Aqueduct.
7. Bevier Memorial Building - 42 South Washington Street.
8. Times Square Building - 45 Exchange Street.

National Register Districts in and around the Broad Street Corridor include:

1. Bridge Square Historic District (added 1984) - Bounded by Main Street, the Inner Loop, Allen Street, and Washington Street. Today this area is commonly referred to as the Cascade District, however, historically it was called Bridge Square because of its configuration of lift bridges at the intersection of Main Street and the Erie Canal.
2. City Hall Historic District (added 1974) - South Fitzhugh between Main and Broad. Includes the old County Courthouse (now county offices), old City Hall, St. Luke's Church, and the Academy Building.
3. Third Ward Historic District (added 1974) - Commonly referred to as the Corn Hill neighborhood and bounded by Adams St, Peach St, I-490, and both sides of Troup Street and Fitzhugh Street.
4. Madison Square Historic District / West Main Street Historic District (added 1988) - Commonly referred to as the Susan B. Anthony neighborhood and bounded by Silver, Canal, West Main, and Madison Streets.

Historic properties within the study area that are not listed but may be eligible include:

1. Buildings at the triangle formed by West Main Street and West Broad Street (217 West Main Street)
2. The former Rochester, Buffalo and Pittsburgh Railway office building (155-165 West Main Street). Note that in addition to the office building just referenced, the original Rochester, Buffalo and Pittsburgh Railway Station is also of significance, and is the first building located just west of the inner loop on the north side of Main just west of the proposed Canal District.
3. The Terminal Building (37 South Fitzhugh Street)

3.3.2 No Build Conditions

Under the no build conditions, none of these buildings would be altered or negatively impacted in any way. However, as the project intends to celebrate the historic elements of this corridor, the interpretive elements proposed such as the Heritage Trail being integrated, and the restoration of the Historic Erie Canal Aqueduct would not be progressed.

3.3.3 Potential Impacts

The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) was notified of the intent of the master plan, including restoration of the 1842 Aqueduct. The letter notes that the State Historic Preservation Office (SHPO) is aware of the proposed action to remove the 1920s era addition atop the 1842 stone aqueduct, and that the lower deck trough will again carry water as it did until the 1920s structure was super imposed upon it. Based on their review of the master plan, it is the SHPO's opinion that the project will have No Adverse Effect upon cultural resources in, or eligible for inclusion in, the National Register of Historic Places with condition that consultation with the SHPO continues as the design progresses.

3.3.4 Mitigation

The public realm improvements are intended to be enhancements to the existing Broad Street Corridor and streetscape that highlight the significant cultural contribution that the Erie Canal made to Rochester, therefore, should not require mitigation. The OPRHP will be involved with the design process for the public realm improvements, including removal of the Broad Street Bridge road deck for restoration of the Erie Canal aqueduct. Any private development which occurs within the district will go through its own review and be assessed on an individual basis with regard to necessary mitigation for impacts to cultural resources.

3.4 VISUAL CHARACTER

3.4.1 Existing Conditions

Plymouth Avenue runs north-south through the study area, and could be viewed as the dividing line between the more densely built-out blocks east of Plymouth Avenue, and the more sparse blocks to the west. The blocks west of Plymouth Avenue and South of Broad Street were filled with single-family detached homes during the late nineteenth century, in what was then referred to as the Third Ward, now Corn Hill. Mid 20th century urban renewal and the construction of I-490 had a dramatic impact on the visual character of the area. What was once a dense neighborhood of homes and commercial buildings now has a ratio of approximately 50% structures to 50% surface parking lots.

The study area offers a mix of uses, but also structures with a mix of architectural styles and from various design periods. The scale of these buildings varies greatly from diminutive 19th Century commercial structures to large mid 20th Century facilities. The presence of several regional venues within the district, including the Civic Center Complex Blue Cross Arena, and Riverside Convention Center have greatly altered the visual character of the area over the past 60 years. Today, the appearance of the district continues to change with

recent projects such as the construction of the Monroe County Crime Lab at the corner of Broad
Draft Generic Environmental Impact Statement
Rochester's Historic Canal District
26



Figure 3.4
Existing conditions at Broad Street and Plymouth Avenue

Street and Exchange Boulevard, and the renovation of the buildings at the corner of Broad Street and West Main Street for use by Nothnagle as their corporate headquarters.

3.4.2 No Build Conditions

With no public investment in the right of way, the roadway will continue to look the same as it does today. The current elevation of the Broad Street Bridge road deck is much higher than that of the other bridges over the Genesee River in downtown. This increased height is in order to allow space for the tunnel below, however, the bridge tends to act as a barrier with regard to sightlines up and down the river corridor. This will continue to be the case without the proposed public realm improvements.

3.4.3 Potential Impacts

The planned public realm improvements along Broad Street will alter the current function of the street through the removal of auto traffic between South Avenue and Exchange Boulevard, and between Washington Street and Main Street. The most significant impact to the existing visual character will be the removal of the Broad Street Bridge road deck in order to restore the historic Erie Canal Aqueduct to its pre 1920s appearance. The aqueduct was constructed in 1842, and carried the Erie Canal over the Genesee River until the canal was rerouted south of the City in 1919. A major goal of the Canal District is to capitalize on the historical components of the area that relate to the canal era, and the aqueduct will be a focal point of the public improvements. Located in the heart of an urbanized area, the area around the aqueduct has experienced significant change since the City was incorporated over 175 years ago. Urban landscapes are in constant flux, and the Canal District is a good example of that given the representation of buildings from various eras. While restoration of the aqueduct will alter the existing aesthetics of the area, the intent is that the resulting project will be a tremendous enhancement to the visual character of the area, and become a central civic gathering place in the core of the Center City. The segment of Broad Street between Exchange Boulevard and Washington Street will be also be enhanced, while allowing auto traffic to continue. Through the construction of a center median, the street will be converted to a boulevard including landscaping and a linear water feature that follows the original path of the canal. West of Washington Street a large water basin will be constructed to anchor the western end of the corridor, and continue the thematic elements.

Additionally, the anticipated private development that is expected to occur throughout the district will encourage a dense and urban land use that is a goal of the Center City Master Plan. It is intended that many of the existing surface parking lots will give way to mixed-use private development projects that will incorporate enclosed parking. The goal is to eliminate the fragmented appearance of the district, in favor of a dense urban neighborhood.

As part of the master planning document for this area, photo simulations were prepared to help illustrate overriding concepts of Canal District. These images show some viewpoints of before and after along the corridor.

3.4.4 Mitigation

The proposed public realm projects are intended to dramatically improve the visual character of the district. Additionally, the intent of attracting private infill development is to improve the density, vibrancy, and walkability of the district. As no negative impacts to visual character are anticipated as a result of the proposed action, no mitigation is proposed.

3.5 FISCAL IMPACTS

ERA/AECOM (ERA), a market analysis firm, conducted a thorough economic market analysis to help guide the Master Plan for the proposed Canal District. Great attention was given to setting realistic expectations the costs and benefits of public and private investments. A full copy of the Market Analysis which was completed in May 2009 can be found as Appendix B.

3.5.1 Existing Conditions

Luring new retail, office, hotel, and residential space in order to establish a vibrant, mixed-use district, is a significant goal outlined in the Master Plan. In order to understand the dynamics of these market segments, the following provides an overview of historic market trends and existing conditions for retail, office, hotel, and residential space within the Center City and the surrounding Rochester region. It should be noted that a considerable amount of investment has been taking place within the Center City, and a number of office and residential projects have recently been completed, are under construction, or are in the planning stages. Some of these projects have been new construction, such as the new ESL headquarters building on Chestnut Street, and some have been renovations of existing buildings such as the Nothnagle headquarters at West Broad and Main Streets.

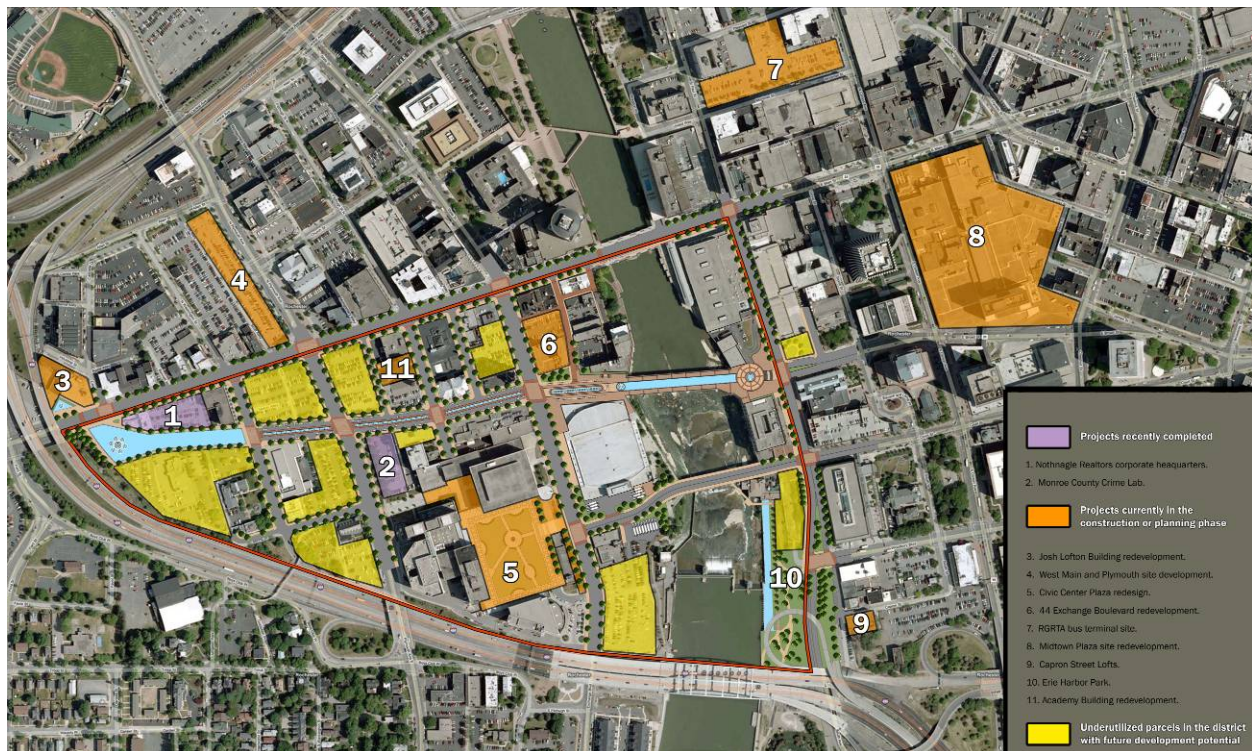


Figure 3.5
Development projects occurring within the Center City

Retail

ERA analyzed the existing retail inventory in the Rochester market in order to develop a better understanding of the retail potential in downtown Rochester, specifically within the proposed Canal District. The retail inventory within a five-mile radius of the Center City was considered in order to evaluate the geographic distribution of major retailing centers, and the type of retail available. A more in-depth analysis of the retail offerings within the Inner Loop was undertaken in order to assess the potential of retail infill within the Canal District.

The greater Rochester retail market spans five counties and includes almost 800 retail sites. There are 47 million square feet of retail space in the Rochester region with an average vacancy rate of seven percent. Of the nearly 800 retail sites considered in this analysis, 79 percent are between 10,000 and 75,000 square feet, and the greater Rochester retail market includes seven retail centers that are larger than 500,000 square feet. Almost all of the retail sites in the Rochester area are located within the five-mile trade areas of the four largest retail centers. The Mall at Greece Ridge (1.5 million square feet), Eastview Mall (1.3 million square feet), and Marketplace Mall (820,000 square feet) are the three largest retail centers in the region, and share the market with upscale shopping centers, such as Pittsford Plaza.

Rochester's three largest retail centers comprise eight percent of the region's retail space. These three malls are all located outside of Rochester city limits (one even outside the County), and are anchored by markedly similar stores: mid-range department stores such as JC Penny, Macy's, BonTon, or Sears. These malls, in turn, each anchor retail development in their districts and clustering of retail sites is observed surrounding each mall.

While downtown Rochester historically served as the retailing center of the region, a major shift to suburban retailing began in the 1970s, and escalated in the 1980s. In 1990 Sibley's closed their downtown department store following a buyout by the May Department Stores. The B. Forman and McCurdy department stores, located at Midtown Plaza similarly closed their doors in 1994, however, the B. Forman space continued to function as a Peebles department store until Midtown Plaza was closed permanently in 2008. While there is still retail present within the Center City, new retail will not compete directly with the retail offerings of the major suburban retail centers, and will likely be more of a niche or service related type of retail.

Office

The office market in the Rochester region is comprised of office space within the Center City, urban office complexes in the greater city, and suburban office parks located in surrounding townships.

The Rochester office market inventory in 2007 was approximately 13.4 million square feet of Class A and B space. Roughly half of the region's office market (47 percent) is located within the Rochester Central Business District (CBD). The market is fairly evenly split between Class A and Class B office space, with slightly more (54 percent) Class B space in 2007.

From 1998 to 2007, Class A inventory within the office market in the Rochester region grew by 1.9 million square feet, representing a total increase of 44 percent. Class A office space was developed exclusively in the suburban markets; the inventory of Class A office space within the central business district has remained flat since 2002, and there is slightly over two million square feet of Class A office space in downtown Rochester.

The majority of Rochester's Class B inventory is located within the CBD. Class B inventory has remained relatively flat in both the CBD and the Suburban markets, with Class B inventory declining slowly within suburban markets and remaining flat within the CBD since 2002. Obsolescence among

Class B buildings is causing a gradual decline in Class B office space throughout the city. Within downtown Rochester, many obsolete office space is being converted into market-rate housing, most frequently rental apartments.

In addition to the Class A and B space that has been tracked, the Rochester Downtown Development Corporation (RDDC) estimates that there are 32 buildings comprising one million square feet of “non-traditional” office space. Non-traditional buildings are defined by unconventional floor plans or layouts, rents below \$10 per square foot net, more than 75 percent vacancy over the last two years, and locations outside of typical commercial neighborhoods.

Hotel

ERA analyzed the hotel inventory in the greater Rochester area in order to develop a better understanding of the potential for hotel development downtown. Rochester’s downtown hotel market is comprised of six hotel properties, and Monroe County contains 57 hotels. Local stakeholders affiliated with Rochester tourism suggested that the competitive market for the downtown district includes hotels in all of Monroe County. The hotel market in the region is highly fragmented, offering choices across almost every market segment. The six hotels that serve downtown Rochester have 1,537 rooms and account for roughly 24 percent of total room supply in Monroe County. Downtown Rochester’s hotel stock is aging, with the newest downtown hotel built in 1992, and the majority of hotels built before 1970.

Residential

In order to understand current and historical housing patterns and other factors with the potential to impact housing in the Center City, ERA analyzed the number of housing units, tenure patterns (ownership vs. rental), building permit activity, and sales prices that define the Rochester residential market.

There are currently over 2,400 housing units in the Center City with a far higher percentage of renter households than the City at large, with only 3 percent of housing units in the Center City owner-occupied, as compared to 38 percent owner-occupied housing units citywide. The Grove Place neighborhood and East End neighborhood in the Center City have the highest owner occupied rate, and the downtown area west of the Genesee River has the lowest.

3.5.2 No Build Conditions

Without investment in the public realm, the addition of amenities, or formation of a cohesive Canal District, the southwest quadrant will not be able to fully capitalize on its potential. Discussions with local developers have suggested that other portions of the Center City are receiving greater attention at this time mainly because those neighborhoods, such as the East End, have a better established sense of place and character. Under the no build condition, there would likely be no significant economic changes to current conditions.

3.5.3 Potential Impacts

A market demand analysis was developed in order to frame a Master Plan that is grounded in market realities. The market demand analysis gauged market support for four uses: retail, office, hotel, and residential. The analysis considered demographic and economic trends, such as employment growth, spending patterns, and population growth in Rochester and the surrounding region. Based on local conditions and projected trends, the market analysis projected the demand for each use within the proposed Canal District.

The analysis determined a reasonable market share and development potential for the district over a fifteen year timeframe. The public and private improvements illustrated in the Master Plan correlate

to incremental implementation of three project phases: three to five years, five to ten years and fifteen years. The Master Plan was completed at the same time a master plan for the redevelopment of the Midtown Plaza site on the east side of the Center City. Midtown Plaza is currently being demolished to make way for smaller development blocks with internal streets. The development parcels are anticipated to host a dense mixture of uses, including office, residential, retail, and potential a cultural facility. With a growing population of residents in the Center City, and a the momentum generated by companies located their offices downtown, the simultaneous redevelopment of both districts offers the opportunity to create a complimentary mix of uses that could be tied to one another by the large civic open space that the aqueduct restoration would provide.

The public realm improvements will bring with them necessary annual maintenance costs to ensure the ultimate success of the corridor as a place that is vibrant and held to a high standard. These maintenance costs will require annual budgeting that goes above typical street maintenance, and the corridor instead should be thought of more as a linear park in a sense. A special improvement district could potentially be formed to help offset these costs.

3.5.4 Mitigation

Attracting new private development will not only ensure a vibrant and dense district, but will substantially increase the tax base of the southwest quadrant of downtown. At full build-out, over \$200 million of private investment will have occurred within the district on parcels of land that are currently underutilized as surface parking lots. Some of these lots, west of Plymouth Avenue, are City owned lots which means that they currently generate no tax revenue. If parking could be relocated into the Broad Street Tunnel, these surface lots could be sold for private development, the tax revenue from which will considerably mitigate new operating costs incurred through construction of the planned public realm improvements.

3.6 VEGETATION AND WILDLIFE

3.6.1 Existing Conditions

The project site contains very few areas of vegetated open space. Aqueduct Park, a privately owned and maintained urban pocket park at the southeast corner of Main Street and Aqueduct Street, is the only vegetated open space of significance within the project site bounds. Aqueduct Park is approximately a half acre in size, and while not technically a City park, is used by the public. The space is primarily vegetated by lawn area, groundcover, and ornamental trees. Areas of maintained lawn exist on South Washington Street adjacent to the Jonathan Child House and Brewster-Burke House. The remainder of the green space in the project area is comprised of various pockets of tree plantings adjacent to the street, and maintained lawn and/or landscaped areas.

Typical urban wildlife that inhabits the area includes squirrels, crows, and pigeons. Particularly noteworthy, is the fact that downtown Rochester has been home to Peregrin Falcons since 1998. A nesting box was placed atop the Kodak office tower in 1995, and several falcons have been successfully hatched from there. Prior to the office tower undergoing renovations in 2009, requiring scaffolding to be placed over its entire façade, the nesting box was removed and a new box was located on the Times Square Building at the corner of Exchange Boulevard and Broad Street. In 2010 falcon eggs successfully hatched there from the nest at the Times Square Building.

3.6.2 No Build Conditions

The no build conditions have no impact on vegetation and wildlife.

3.6.3 Potential Impacts

The Master Plan as proposed would not have an adverse impact on vegetation and wildlife, as the adoption of the area plan as an amendment to the City's comprehensive plan does not commit the City to any physical projects that would alter existing conditions.

3.6.4 Mitigation

As no impacts are anticipated to vegetation and wildlife, no mitigation is proposed.

3.7 WETLANDS AND SURFACE HYDROLOGY

3.7.1 Existing Conditions

Wetlands are defined at the federal level as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marches, bogs and similar areas." (Federal Register, 1982). Wetlands are regulated at the federal level by the US Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act and its implementing regulations.

The Genesee River flows through the eastern end of the project area, but according to the Flood Insurance Rate Map prepared by the Federal Emergency Management Agency (FEMA), the project area does not fall within the 100-year floodplain associated with the river. The Mt. Morris Dam located several miles upstream from Rochester on the Genesee River effectively controls fluctuations in river water elevations. Coupled with the presence of concrete and stone river walls on both sides of the Genesee River in downtown, river flooding no longer occurs in the Center City. No other surface water resources, including wetlands, exist within the project area.

3.7.2 No Build Conditions

No wetlands occur within the project area, and this condition will go unchanged without the project.

3.7.3 Potential Impacts

The Master Plan as proposed would not have an adverse impact on wetlands or surface hydrology. While a goal of the Master Plan is to embrace the river corridor, and provide improved public access along its banks, no physical change to the river itself is being proposed. An increase to impervious surface is not proposed as part of the Master Plan, as the parcels recommended for redevelopment are either existing streets, or paved parking areas. The improvements proposed to the public realm will allow for additional planting areas, and pockets of green space, therefore, overall lot coverage with regard to areas of hardscape may be reduced. No impacts to wetlands or surface hydrology are expected as a result of the project either the public realm improvements or private infill development.

3.7.4 Mitigation

As no impacts are anticipated to wetlands or surface hydrology, no mitigation is being proposed.

3.8 TOPOGRAPHY AND SOILS

3.8.1 Existing Conditions

The center city area of Rochester is relatively flat, with a grade difference of approximately 15-20 feet across the entire project area from the northern edge of interstate 490 to the point at which Main Street crosses the Genesee River. The Soil Survey for Monroe County classifies areas within downtown Rochester as “Urban Land”, which is defined as areas that have been so altered or obscured by urban works and structures that identification of the soils is not feasible. The site area is almost completely covered by buildings, roads, pavement, and pockets of vegetation with no occurrences of exposed soil within the district boundaries.

3.8.2 No Build Conditions

Under the no build condition there are no alterations to the topography or soils.

3.8.3 Potential Impacts

No changes to ground topography are being proposed as part of the Master Plan. The removal of the Broad Street Bridge road deck as part of aqueduct restoration would result in the lowering of the existing sidewalk elevation on the bridge approximately 15 feet as it intersects with South Avenue, however, this does not represent a change to physical ground topography. Soils will similarly go unaffected, as the public realm improvements do not call for the removal of native soils. The length of Broad Street from Main Street to South Avenue is essentially a bridge, as the road deck is supported on columns with the Broad Street Tunnel below. Therefore, changes within the public realm may require structural work within the tunnel, but no impact with regard to soils.

3.8.4 Mitigation

The 15 foot grade separation that will be created between the sidewalk at South Avenue and the restored aqueduct will be mitigated through the construction of ramps and a staircase that will allow pedestrian connections between the restored aqueduct and its plaza with the sidewalk network along South Avenue. Similarly, a staircase will be constructed at 50 West Broad Street, the local headquarters of Thomson Reuter, in order to provide access to the existing entrance on Broad Street to that building. As no impacts to ground topography or soils are anticipated, no other mitigation is being proposed.

3.9 INFRASTRUCTURE AND UTILITIES

3.9.1 Existing Conditions

A wide range of utilities are currently present within the district, and many of these utilities are located within the Broad Street Tunnel. A summary of the utility agencies and a description of their facilities are as follows:

Monroe County Pure Waters

Monroe County Pure Waters maintains the existing combined sewers within the city. There are combined sewers located beneath the floor of the Broad Street Tunnel from West Main Street to Exchange Boulevard, and intersecting sewers are located at Washington Street and Exchange Boulevard. There are five Rochester Water Bureau watermain crossings within the Broad Street Tunnel. At all of these locations, the mains turn downward to pass under the floor of the tunnel and subsequently rise to normal watermain depth on the opposite side. In addition, there are other minor watermain facilities within the rights-of-way throughout the district.

Rochester Gas & Electric (RG&E)

Duct banks containing four to ten transit pipes carrying electric lines run transversely across the tunnel at most intersections. The manholes for these lines are all located outside of the tunnel within sidewalks along the street. There are no gas mains within the tunnel, but mains do exist along other streets in the district.

Time Warner

A fiber optic line runs longitudinally through the tunnel from South Avenue to Brown Street. It is carried by a flexible conduit that is attached to the center pier on the former rail track numbers 3 and 4 side from Brown Street to the east end of the Gannett Building. From this point to South Avenue it is attached to the north wall.

Rochester District Heating (RDH)

RHD operates and maintains a steam line that runs across the aqueduct and continues through the tunnel to Cascade Drive where it is capped. This steam line services many of the downtown buildings. The main line is a 6 inch or 8 inch high pressure steam line with various risers that still serve customers or have been capped. Most of these steam lines are covered with asbestos insulation, some of which has been covered or encased. The line continuing past Cascade Drive, down station to the project beginning, is owned and maintained by RG&E (most of this line has been removed or abandoned in place).

Frontier (Telephone)

Several duct banks transverse to the tunnel, but some are located above the structural deck. The duct banks are located at Allen, Main, Washington, and Fitzhugh Streets, Exchange Boulevard, and Scott and School Alleys. The crossing by School Alley has caused significant problems with settlement of the asphalt paving in the past, and has been excavated and repaved several times.

MCI Telecommunications

One fiber optic line runs through the Gannett storage area along the north tunnel wall. It crosses to the south wall just west of the storage area and runs along this wall to where it exits at the railroad entrance. The fiber optic line is carried in a 4 inch steel conduit which is anchored to the subway wall or roof slab.

Williams

Two 4 inch diameter conduits carrying fiber optic lines cross the tunnel at the south end of Allen Street and continue through the tunnel along the northern wall, through the eastern wall of Gannett and past the project limits.

AT&T /TC Systems (assumed)

Four 4 inch conduits carrying fiber optic lines enter the tunnel at the siding entrance near Industrial Street, cross the tunnel and continue along the north wall to the end of the project limits. A junction box exists at spans 174/175 (near Irving Place) where four conduits exit the tunnel and four enter the tunnel.

Fibertech

Two 6 inch conduits mounted to the roof cross the tunnel on the west side of the western Gannett wall.

Private Conduit

A private conduit line crosses the tunnel near Washington Street and is mounted to the roof. This line is abandoned since the private business using this conduit has relocated. Conversations with

the City Permit Office indicate that Telergy may also have facilities located in the tunnel, but plans and specific locations are not available. Some conduit was noted but could not be identified, as follows: Two 5 inch conduits and one 3 inch conduit mounted to the top slab and crossing the tunnel just west of Plymouth Avenue; two 2 inch conduits mounted to the north wall starting at Fitzhugh and continuing to the east through the Gannett storage area. In addition, the previous Gannett storage area has a sprinkler system throughout and a drip pan or gutter system which collects leakage through the concrete roof slab.

3.9.2 No Build Conditions

Under the no build condition, there are no alternations to the existing condition of the public infrastructure or utilities.

3.9.3 Potential Impacts

The proposed public realm improvements will require the relocation of some utilities, particularly between Exchange Boulevard and South Avenue as part of the restoration of the aqueduct. The height of the tunnel from its floor (former aqueduct bed) to the surface of the Broad Street Bridge road deck is approximately 18 to 20 feet. Utilities mounted to the underside of the bridge road deck will need to be relocated, as the bridge deck is proposed for removal. The approximate width of the aqueduct is 68 feet, however,

3.9.4 Mitigation

As no impacts have been identified, no mitigation is proposed.

3.10 TRAFFIC AND PARKING

3.10.1 Existing Conditions

The proposed Canal District is bounded by West Main Street, South Avenue, and I-490. West Broad Street, Court Street, and Spring Street represent east-west internal streets, while Washington Street, Plymouth Avenue, Fitzhugh Street, and Exchange Boulevard run north-south. A planning level traffic assessment was completed to assess current and future conditions of the study area roadways and intersections, which is included in full as Appendix D.

There are twenty-seven signalized intersections within the study area that were analyzed to evaluate current conditions as well as the anticipated impact of this project. The intersections within the study area include:

1. Main Street/Broad Street/Ford Street
2. Main Street/Broad Street
3. Main Street/Washington Street
4. Main Street/Plymouth Avenue
5. Main Street/Fitzhugh Street
6. Main Street/Exchange Blvd/State Street
7. Main Street/South Avenue/St. Paul Street
8. Main Street/S. Clinton Avenue/N. Clinton Avenue
9. Broad Street/Washington Street
10. Broad Street/Plymouth Avenue
11. Broad Street/Fitzhugh Street
12. Broad Street/Exchange Boulevard
13. Broad Street/South Avenue
14. Broad Street/Stone Street
15. Broad Street/S. Clinton Avenue
16. Broad Street/Chestnut Street
17. Spring Street/Plymouth Avenue
18. Troup Street/1-490 EB On-Ramp/Plymouth Avenue
19. Court Street/Exchange Boulevard
20. Court Street/South Avenue
21. Court Street/Bausch & Lomb Place
22. Court Street/S. Clinton Avenue

- 23. Court Street/Chestnut Street
- 24. Woodbury Boulevard/South Avenue/
I-490
- 25. Woodbury Boulevard/St. Mary's Street

- 26. Woodbury Boulevard/S. Clinton
Avenue
- 27. Woodbury Boulevard/Chestnut Street

Traffic volumes are collected by Monroe County DOT and maintained in two databases; one database for street segments and the other one for intersection turning movement counts at intersections; and the corresponding date of the counts. These two databases contain traffic count information ranging from the early 1980s to the current year. The traffic counts included in the traffic assessment represent the most current data collected for the respective street segment or intersection. A comparison of the downtown street segments volume data over the last 30 years shows that downtown traffic volumes are cyclical with increases and decreases over the time frame. However, the traffic volumes have not significantly grown over that time period and for this reason, the latest intersection count data is assumed to be the "Existing 2008" traffic volumes for use in this report. The speed limit for all of these streets is 30 mph.

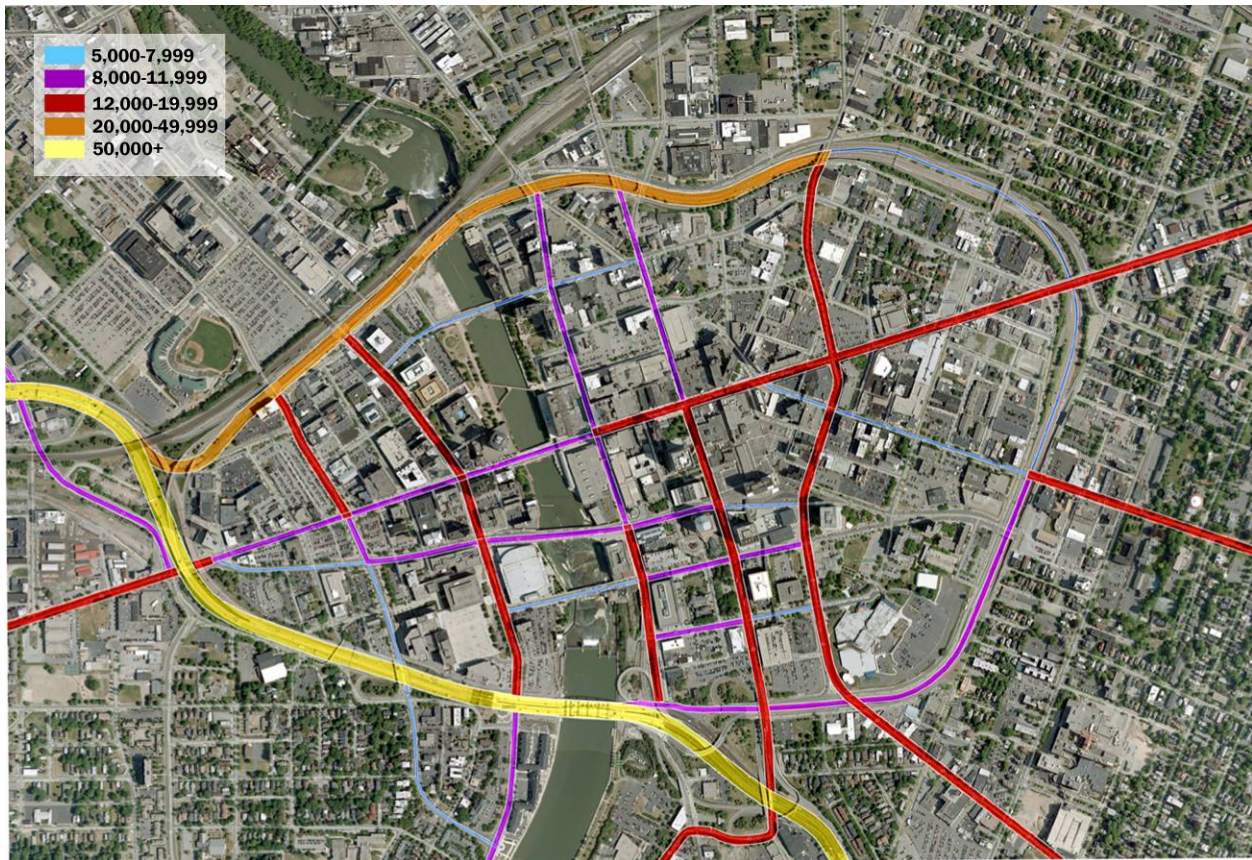


Figure 3.6
Existing levels of annual average daily traffic in and around the Center City

The existing intersection turning movement count data for the downtown street network was taken over several years, however with cyclical changes in the City's traffic patterns over the last thirty years, the most current count data from the MCDOT database was used without adjusting the traffic to the current year. These volumes were the basis for the existing 2008 base year traffic analysis. The MCDOT also made available the Synchro Traffic analysis model that includes these same existing volumes. This model was modified to match street geometry and signal operations to the study area intersections and street segments. The existing levels of service for the study area intersections are shown in following table.

INTERSECTION	2008 EXISTING	
	AM PEAK	PM PEAK
Chestnut Street/Woodbury Boulevard		
EB L	D	D
EB TR	B	C
WB LT TR	C	C
NB L	A	A
NB T TR	A	A
SB L	A	B
SB T T TR	A	A
overall	A	B
Clinton Avenue/Woodbury Boulevard		
EB LT T	D	B
WB T TR	C	A
NB LT T T TR	B	B
overall	B	B
Court Street/Baush & Lomb		
EB LT TR	A	A
WB LT TR	A	A
NB LTR	D	C
SB L	D	D
SB TR	B	B
overall	A	B
Court Street/Clinton Avenue		
EB LT T	C	D
EB L	-	-
EB T	-	-
WB TR	-	-
NB L	A	A
NB LT T T	A	A
NB R	A	A
overall	A	B
Chestnut Street/Court Street		
EB L	-	-
EB T TR	-	-
EB LT TR	-	-
EB LT T	C	C
EB R	A	A
WB L	-	-
WB TR	-	-
NB T T	B	A
NB LT T	-	-
NB R	A	A
SB L	A	A
SB T T TR	A	A
overall	B	B

INTERSECTION	2008 EXISTING	
	AM PEAK	PM PEAK
Broad Street/Stone Street		
EB L	A	A
EB R	A	A
EB TR	-	-
WB L	A	A
WB T TR	A	A
WB LT TR	-	-
SB TR	C	B
overall	A	A
Broad Street/Clinton Avenue		
EB L	-	-
EB T	-	-
EB T TR	-	-
WB T TR	B	B
NB L	A	A
NB LT TR	A	A
overall	A	B
Woodbury Boulevard/St. Marys Place		
EB LT TR	A	A
WB LT TR	A	A
NB LTR	C	C
SB LTR	C	C
overall	A	A
Street/Broad Street		
EB L	-	-
EB TR	-	-
EB LT TR	-	-
WB L	-	-
WB LT T TR	C	C
WB T TR	-	-
NB L	D	F
NB T T	B	B
SB LT T	A	A
SB R	A	A
overall	B	E

A detailed parking study was completed for downtown Rochester in early 2008 which evaluated the supply and demand of both on and off-street parking. Figure 3.7 depicts a summary of the parking inventory findings from that parking analysis.

Figure 3.7
Existing Study Area Parking Supply and Demand*

Location	On-Street Parking	On-Street Peak Parking Occupancy	Off-Street Parking	Off-Street Peak Parking Occupancy	Total Parking Spaces	Total Parking Occupancy
West of Plymouth Avenue	89	55 (62%)	646	628 (97%)	735	683 (93%)
Between Plymouth Avenue & Exchange Boulevard	109	103 (94%)	1,459	1,217 (83%)	1,568	1,320 (84%)
East of Exchange Boulevard	140	116 (83%)	545	416 (76%)	685	532 (78%)
Broad Street from Clinton Ave to South Ave	16	12 (75%)	1,659	1,410 (85%)	1,675	1,422 (85%)
Court Street from South Ave to Clinton Ave	6	5 (83%)	1,014	825 (80%)	1,020	830 (81%)
Total	360	291 (81%)	5,323	4,496 (84%)	5,683	4,787 (84%)

* Data presented in the Comprehensive Downtown Rochester Parking Study, dated January 2008.

Within the Broad Street study area there are currently a total of 2,988 parking spaces, of which 2,650 spaces are off-street, located primarily in parking lots and garages, and the remaining 338 spaces represent on-street parking. Figure 3.7 provides a depiction of the existing off-street parking supply, differentiated by type of parking facility (surface lot versus parking garage) and by use (public versus private).

Existing peak parking usage reaches 85% for off-street parking (2,253 spaces) and 81% for on-street parking (274 spaces) which translates to a combined peak parking demand of approximately 2,527 spaces or 85% of the total parking within the study area. This means that even during peak demand 461 parking spaces are available either on or off-street. Much of that available parking (73% of it) is located in off-street surface parking lots which could be eliminated in the future should some of these lots become developed.

In addition to the parking inventory within study area, there is a large inventory of off-street parking in the northwest quadrant of downtown (north of Main Street from the study area). The Cascade District, west of Plymouth Avenue, includes a number of surface parking lots, and east of Plymouth Avenue parking structures include the Sister Cities Garage on Fitzhugh Street (991 spaces), the Genesee Crossroads Garage on State Street (604 spaces), and the Radisson Hotel Garage on St. Paul Street (181 spaces)

3.10.2 No Build Conditions

Under the no build condition, there are no alternations to existing traffic and circulation.

3.10.3 Potential Impacts

The projected traffic for the project area is comprised of several distinct components and derived from different modeling approaches. These components are listed as follows:

1. Existing traffic within the study area and the core downtown area.
2. Background traffic for major developments listed in section III.
3. The use of the Genesee Transportation Council's Travel Demand Model.
4. Annual growth factor for background traffic.
5. Redistribution and diversion of traffic from the Broad Street Bridge closure for the Phase 1 construction (as supported by the Mock Bridge Closure.)
6. Traffic generated for the projected Broad Street Corridor Master Plan development.
7. Trip generation reduction factors and distribution of Scenario 2 (2014) traffic – assumed to be 35% of the project development.
8. Trip generation reduction factors and distribution of Scenario 3 (2025) traffic– assumed to be 100% of the project development.

These components are discussed below showing the data source and the methodology for the application of the component to the overall traffic projections and evaluation of traffic impacts on the study area intersections. Calculation spreadsheets are included in the Traffic Impact Study which can be found as Appendix D.

BACKGROUND TRAFFIC FOR MAJOR DEVELOPMENTS

Monroe County DOT has taken the traffic projections from the traffic studies prepared for the Transit Center (approximated from the former Renaissance Square project), Midtown Redevelopment and ESL Headquarters developments and prepared a spreadsheet appended to the existing intersection traffic database to show traffic associated with these developments including the roadway changes associated with them listed in the previous section. This information has been made available for use on this project and incorporated as appropriate.

TRAVEL DEMAND MODEL

The Genesee Transportation Council (GTC) created a traffic model using the GTC Regional Travel Demand TransCAD model representing the existing year 2008 travel demand for AM and PM peak hours in downtown Rochester. They also prepared a future year 2014 travel demand model to include changes in the network demand based on specific developments for the downtown area including the Transit Center (former Renaissance Square), PAETEC Headquarters/ Midtown Redevelopment, and ESL Headquarters. The model also included some minor developments including Charlotte Square Development, Capron Street Development, Cox Building Development, Warner Place and the Kirstein Building Development. A 2014 travel demand model run named "Revised 2" included the proposed developments and street geometry changes since this is the anticipated timeframe for the completion of these projects.

A second 2014 model was created that removed the link representing the Broad Street Bridge closure but included the proposed street geometry and development and this model is referred to as "Full Build 2" for the AM and PM Peak Hours.

ANNUAL GROWTH FACTOR

Based on the comparison of volumes between the 2008 “Existing” model and the 2014 “Revised 2” models, a growth rate of 0.5% was used for the study area background growth.

BROAD STREET BRIDGE CLOSURE PROJECTED TRAFFIC REDISTRIBUTION AND DIVERSION

The “Revised 2” and “Full Build 2” travel demand model runs were examined to assess the impact of the proposed closure of Broad Street Bridge over the Genesee River, Scenario 1. These model projections were used to gauge the anticipated traffic shifts that could be expected for all of the forecasted development within the downtown area for both scenarios with the Broad Street Bridge in place and with this bridge link removed.

However, since these models do not incorporate future land use for the proposed development in our study area, the model differences were used to determine the traffic redistribution for the bridge closure only. The “Revised 2” and “Full Build 2” model runs were compared at a cordon line located along the river bisecting the four bridge crossings within downtown. The volumes from the “Revised 2” model on the four bridges (Andrews Street, Broad Street, Main Street and Court Street) were compared to the directional model volumes if the Broad Street bridge were to be closed to traffic and shifted to the 3 remaining bridges (Court Street, Main Street and Andrews Street).

This comparison yielded that 20% of trips currently crossing Broad Street would be diverted away from the remaining three CBD crossings and the remaining 80% would be redistributed trips that would use the three downtown crossings for both the AM and PM Peak time frames. The percentages of the model volumes representing redistributed trips were applied to the traffic volumes in the Synchro model. Therefore, in both the AM and PM, 80% of Broad Street traffic was redistributed to the other 3 bridges and the other 20% was diverted out of the study area.

The comparison further identified that the closure of the Broad Street Bridge will shift 65% of the westbound directional Broad Street traffic to Court Street. That is 65% of 625 vph in the AM Peak and 65% of 850 vph in the PM Peak diverted to Court Street in both the AM and PM peak hours. Similarly, 10% and 15% of the Broad Street volumes would be redistributed to Main Street for the AM and PM peak hours, respectively.

For eastbound traffic, the split was the similar and opposite, where 65% of the eastbound directional Broad Street traffic (65% of 500 vph in the AM and of 535 vph in the PM) diverted to Main Street in both the AM and PM peak hours and 10% to Court Street for both the AM and PM peak hours. Andrews Street will see 5% of the volume for both the EB and WB directions in the AM peak hour and 5% for the eastbound direction in the PM peak hour. Therefore, the peak two-way traffic on Main Street could grow to 1800 vph, Court Street to 1400 vph, and Andrews Street to 650 vph. Figures showing the redistributed traffic and the diverted traffic for the AM and PM peak hours are included in Appendix D.

Although this may seem counter-intuitive, the model seems to generalize the diversion based on the destinations, which may be the concentration of businesses, parking garages and parking areas. That is, westbound traffic destined for areas north and west of Main Street west of the river will use Court Street in the AM and then eastbound Main Street in the PM. For the westbound AM traffic destined for areas south and east of Broad Street on the east side of the Genesee River indicate that traffic using Broad Street to cross in the AM peak may use Main Street in the AM and Court Street in the PM. This would correspond to the diversion assumptions in the model. The trial bridge closure described below supports the assumptions made for Scenario 1.

The proposed traffic volumes were assigned to the revised street network using the directional turning movements of the Broad Street traffic through the network based on the MCDOT Synchro model.

TRIAL BRIDGE CLOSURE DATA COLLECTION

In order to better understand the traffic impacts if the bridge was permanently closed, the Broad Street Bridge was closed for a two week trial period to observe traffic patterns within the city. The bridge was blockaded from the morning of Monday, February 15th, 2010 to 6:00pm Thursday, February 25th, 2010. During the week of February 15th through the 19th, traffic was only moderately observed. The first week was assumed to have irregular traffic patterns as commuters were learning to adjust their normal trip in and out of the city. Also, Monday February 15 was a national holiday with most businesses closed, and with the public schools on recess for February Break through the remainder of the week, expected commuter and school traffic was anticipated to be reduced.

Traffic observations and counts were conducted the second week of the bridge closure, as commuters were more acquainted with new traffic patterns. Manual turning movement counts were conducted at various intersections in the study area February 23rd through February 25th during the morning and evening peak hours. Although the traffic data does not appear to have been impacted, a snow storm event occurred in the City the afternoon of Thursday February 25th, which caused traffic delays on area highways such as route I-490. This weather event may have caused commuters to leave work early, or possibly chose alternate routes home; however after reviewing the traffic data from the turning movement counts, there did not seem to be a significant difference in volumes, in comparison to the other two evening counts.

The intersections included in the trial bridge closure were:

1. Woodbury Blvd & South Ave/I-490 Eastbound Ramps
2. Woodbury Blvd & Clinton Avenue
3. Troup Street/I490 Ramp & Plymouth Avenue
4. Broad Street & Chestnut Street
5. Broad Street & Clinton Street
6. Broad Street & South Avenue
7. Broad Street & Exchange Boulevard
8. Broad Street & Fitzhugh Street
9. Broad Street & Plymouth Avenue
10. Court Street & Clinton Avenue
11. Court Street & South Avenue
12. Court Street & Exchange Boulevard
13. Main Street & Clinton Avenue
14. Main Street & South Avenue/St. Paul Street
15. Main Street & State Street/Exchange Boulevard
16. Main Street & Plymouth Avenue
17. Main Street & Broad Street

On-street traffic operations were also observed during the trial closure of the Broad Street Bridge between February 23, 2010 and February 25, 2010. Observations were made from T.Y. Lin International (TYLI) traffic engineers driving through the study area, TYLI traffic counters during the count and from video images provided by MCDOT from camera locations on South Avenue and Clinton Avenue.

Generally, the overall operations of the study area appeared to flow fairly well throughout the trial period, during the AM peak hour, but there was much congestion during the PM peak hour along Court Street bridge area. The main area of concern was along Court Street between South Avenue and Exchange Boulevard. Court Street is striped as two westbound lanes on the west end of the bridge approaching Exchange Blvd and two eastbound lanes on the east end of the bridge approaching South Ave, however legal and illegal parking activity greatly limits the ability of traffic to use both lanes. Additionally, buses stopping at the east end of the bridge disrupt traffic flow and occasionally block both eastbound travel lanes. With eastbound queues extending westerly on Court Street to Exchange Boulevard and beyond at times, the southbound left-turning traffic on Exchange Boulevard often blocked the westbound left-turn movement from Court Street onto Exchange Boulevard. As such, increased queues were observed on the westbound approach of Court Street at Exchange Boulevard. This traffic pattern occurred from about 5:05pm to 5:25pm. Also, traffic on South Avenue peaked significantly from approximately 5:15pm to 5:35pm.

With the overlap of these two activities, there seemed to be insufficient capacity to handle the volume for a 30 to 45 minute timeframe with a 15 to 20 minute overlap peak during the timeframe. Timing adjustments were made by MCDOT at the intersection of Court Street and South Avenue to try to help alleviate the back-ups; however, this caused more congestion on South Avenue without much improvement on Court Street. According to a City of Rochester Engineer, the PM peak period was observed to be between 5:00 and 5:20 corresponding to the observations above and shortly after 5:20 each day the volumes dropped dramatically. To read the detailed observations see Appendix D.

TRIAL BRIDGE CLOSURE EVALUATION

Intersection Analysis

The traffic volumes collected in the peak hour traffic counts were compared and balanced for the volumes taken throughout the study area. Traffic volumes were balanced when intersections were close together without a destination source between them. The Broad Street/South Avenue and Broad Street/Exchange Boulevard intersections were counted multiple times in the trial week to provide a method to compare volume changes between the count days. Traffic volumes figures and count data is included in Appendix D.

The results of the Synchro analysis of the studied intersections are summarized in Figure 3.8. A summary of findings for each intersection is listed below.

- Woodbury Blvd & South Ave/I-490 Eastbound Ramps – Level of Service (LOS) D was reported for Woodbury traffic movements in both the AM and PM peak hours with LOS A for South Avenue.
- Woodbury Blvd & Clinton Avenue - Satisfactory LOS B and C were reported for traffic movements in both the AM and PM peak hours.
- Troup Street/I490 Ramp & Plymouth Avenue – LOS C was reported for Troup Street traffic movements in both the AM and PM peak hours with LOS A for Plymouth Avenue.
- Broad Street & Chestnut Street - Satisfactory LOS A, B and C were reported for traffic movements in both the AM and PM peak hours.

- Broad Street & Clinton Street - Satisfactory LOS A and B were reported for traffic movements in both the AM and PM peak hours. (This is an intersection of two, one-way streets)
- Broad Street & South Avenue - Satisfactory LOS B was reported for traffic movements in both the AM and PM peak hours.
- Broad Street & Exchange Boulevard - Satisfactory LOS A, B and C were reported for all but one of the traffic movements in both the AM and PM peak hours. An LOS of D was reported for the Broad Street eastbound left turns in both the AM and PM peak hours.
- Broad Street & Fitzhugh Street - Satisfactory LOS A, B and C were reported for traffic movements in both the AM and PM peak hours.
- Broad Street & Plymouth Avenue - Satisfactory LOS A, B and C were reported for traffic movements in both the AM and PM peak hours.
- Court Street & Clinton Avenue - Satisfactory LOS A, B and C were reported for traffic movements in both the AM and PM peak hours.
- Court Street & South Avenue - Satisfactory LOS A, B and C were reported for traffic movements in both the AM and PM peak hours. An LOS of D was reported for the Court Street eastbound through/right movement for the PM peak hour.
- Court Street & Exchange Boulevard - Satisfactory LOS A, B and C were reported for traffic movements in both the AM and PM peak hours. An LOS of D was reported for the Court Street westbound left movement for both the AM and PM peak hours.
- Main Street & Clinton Avenue - Satisfactory LOS A and B were reported for traffic movements in both the AM and PM peak hours.
- Main Street & South Avenue/St. Paul Street - Satisfactory LOS A, B and C were reported for traffic movements in both the AM and PM peak hours.
- Main Street & State Street/Exchange Boulevard - Satisfactory LOS A and B were reported for traffic movements in both the AM and PM peak hours.
- Main Street & Plymouth Avenue - Satisfactory LOS A, B and C were reported for traffic movements in both the AM and PM peak hours.
- Main Street & Broad Street - Satisfactory LOS A, B and C were reported for traffic movements in both the AM and PM peak hours.

For the previously mentioned intersections, satisfactory Levels of Service were reported for all movements in the Synchro model based on the volumes collected and the traffic signal timings provided by MCDOT. However, the observations indicate that the intersections along the following street segments experienced an undesirable LOS of F for a 30 to 45 minute period during the PM peak hour:

- Exchange Boulevard from Main Street to south of the Court Street intersection,
- Court Street from Exchange to South Avenue, and
- South Avenue between Main Street and Woodbury Boulevard

The observation from the video surveillance indicated that some traffic on Court Street waited for four to five traffic signal cycles before moving through the intersection at South Avenue.

Figure 3.8

Intersection Level of Service - Broad Street Bridge Trial Closure

Intersection Movement	2010 BRIDGE TRIAL CLOSURE (Grown to 2011)		Intersection Movement	2010 BRIDGE TRIAL CLOSURE (Grown to 2011)		Intersection Movement	2010 BRIDGE TRIAL CLOSURE (Grown to 2011)	
	AM PEAK	PM PEAK		AM PEAK	PM PEAK		AM PEAK	PM PEAK
Broad Street/Exchange Boulevard			Broad Street/Plymouth Avenue			Main Street/Broad Street		
EB L	B (17)	D (41)	EB L	B (16)	B (20)	EB T T	B (14)	C (21)
EB T TR	-	-	EB T TR	B (16)	B (12)	EB R	A (1)	A (1)
EB R	B (13)	A (10)	WB L	A (9)	B (18)	WB T T	A (8)	C (27)
WB L	-	-	WB T TR	A (5)	A (8)	NB L L	C (23)	B (17)
WB T TR	-	-	NB L	B (13)	B (14)		B (13)	C (22)
NB L	C (28)	C (20)	NB T TR	B (13)	B (14)	Main Street/Plymouth Avenue		
NB T T	B (10)	C (24)	SB L	C (33)	A (9)	EB LT TR	A (8)	C (20)
NB T TR	-	-	SB T TR	C (21)	B (10)	WB LT T	C (28)	B (19)
SB L	-	-		B (17)	B (12)	WB R	B (12)	A (5)
SB T TR	A (7)	C (31)	Troup St/I-490 On-Ramp/Plymouth Ave			NB L	C (33)	B (18)
	B (11)	C (25)	EB LTR	C (26)	C (29)	NB T TR	C (34)	B (20)
Court Street/Exchange Boulevard			NB L	A (2)	A (2)	SB L	C (27)	B (16)
WB L	D (50)	D (41)	NB TR	A (2)	A (2)	SB T TR	C (21)	B (16)
WB R	B (19)	A (8)	SB LT T	A (4)	A (5)		B (20)	B (18)
NB T TR	A (10)	B (18)	SB R	A (1)	A (1)	Main Street/Exchange Blvd/State St		
SB L	B (17)	C (20)		A (3)	A (3)	EB T TR	A (6)	A (8)
SB T T	A (2)	A (5)	Court Street/South Avenue			WB T TR	A (8)	B (11)
	B (14)	B (16)	EB TR	C (29)	D (44)	NB T TR	A (7)	B (20)
Broad Street/South Avenue			EB R	A (8)	C (25)	SB T TR	B (20)	B (17)
EB T	-	-	WB LT T	C (27)	A (9)		B (12)	B (15)
EB R	-	-	SB L	A (10)	B (19)	Main Street/South Avenue/St. Paul St		
WB L	-	-	SB T T T TR	A (10)	C (23)	EB T	C (28)	C (22)
WB LT T	-	-		B (16)	C (24)	EB R	B (13)	A (7)
WB L L	B (19)	B (18)	Court Street/Clinton Avenue			WB T T	B (13)	C (31)
SB L	B (13)	B (12)	EB LT T	C (23)	B (18)	SB L	B (17)	B (13)
SB T T T TR	-	-	NB L	A (7)	A (6)	SB T T TR	B (16)	B (11)
SB T T T T	B (14)	B (14)	NB LT T T	A (5)	A (7)		B (17)	B (18)
	B (15)	B (15)	NB R	A (3)	A (1)	Main Street/Clinton Avenue		
Broad Street/Fitzhugh Street				A (7)	A (9)	EB T T	B (16)	A (9)
EB L	A (8)	B (13)	Broad Street/Clinton Avenue			WB T	A (10)	B (10)
EB T TR	A (4)	B (13)	WB T T TR	B (13)	B (14)	NB T T	B (12)	B (12)
WB L	B (14)	A (10)	NB L	A (1)	A (1)		B (12)	B (11)
WB T TR	A (8)	A (10)	NB LT TR	A (6)	B (11)	Chestnut Street/Broad Street		
NB L	C (27)	C (34)		A (6)	B (10)	WB LT T TR	C (25)	C (33)
NB TR	B (13)	B (18)	Woodbury Boulevard/South Ave/I-490			WB L	-	-
SB L	C (31)	B (17)	WB L2	D (36)	D (43)	WB T T TR	-	-
SB TR	C (32)	A (3)	WB L	D (43)	D (45)	NB L	C (31)	C (22)
	B (11)	B (18)	SB L2	A (2)	A (3)	NB T T	B (12)	B (11)
Clinton Avenue/Woodbury Boulevard			SB L	A (2)	A (7)	SB LT T	A (7)	A (4)
EB LT T	C (28)	B (17)	SB T T	A (2)	A (3)	SB R	A (2)	A (1)
WB T TR	C (24)	B (11)	SB R R	A (1)	A (1)		B (12)	B (12)
NB LT T T TR	B (13)	B (20)		A (5)	A (8)			
	B (14)	B (18)						

The difference between the analyzed LOS and the observed traffic operations may be due to parking friction or impedance, a higher peak hour factor, and the transit operation impedance at the southwest corner of the Court Street/South Avenue intersection that caused the 30 to 45 minute traffic congestion observed. Satisfactory LOS for the Court Street/South Avenue intersection indicate that the traffic volumes do not exceed capacity if lanes are utilized equally, which may not be achievable. However, traffic operation concerns observed in the field can be mitigated with measures discussed later in this report.

System Sensor Data

Monroe County DOT has various System Sensors detector loops as part of the Central Computerized Traffic Signal System within the study area that record approximate lane volumes. Some of the sensors were either off-line or not collecting data, however, the system sensors that had available data include:

- East Broad Street (east of South Ave) – two sensors, one westbound sensor in each westbound lane (third sensor was blocked off during closure)
- West Broad Street (west of Plymouth Ave) – one eastbound sensor in one of the two eastbound lanes
- Plymouth Ave (south of Broad Street) – one sensor in each lane northbound and southbound (4 sensors total)
- West Main Street (westbound east of State Street and eastbound west of State Street) - one sensor in each direction
- East main Street (westbound east of Clinton Avenue and eastbound west of Clinton Avenue) - one sensor in each direction
- South Washington Street (south of West Broad Street) – one sensor in northbound direction
- Court Street (east of South Avenue) – two sensors eastbound and two sensors westbound
- Northbound Exchange Boulevard (north of Court Street) – one sensor for two lanes
- Southbound Exchange Boulevard (north of Broad Street) – one sensor for two lanes
- Southbound St. Paul Street (north of main Street) – one sensor for three lanes

The average volumes over a 3-week period of time (two weeks prior to the closure of the bridge and one week after the closure) were compared to the average volumes during the second week the bridge was closed. Although the data could not be used to compare actual volumes, the differential between the two scenarios would be evaluated to further assess increases and decreases in traffic on these streets that are part of the study area.

From the graph of the daily traffic data, the approximate peak hour was evaluated to determine the percent difference between the bridge open and bridge closed data. Figure 3.9 summarizes the results of this evaluation. The sensor graphs are in Appendix D.

Figure 3.9					
Sensor Data Comparison: Broad Street Bridge Open vs. Broad Street Bridge Closed					
Intersection		Open Peak Hour Sensor Volume	Closed Peak Hour Sensor Volume	% Diff	Peak Hour Factor (PHF)
South Washington					
Northbound	AM	1950	1870	-4%	0.97
	PM	870	925	6%	0.98
Court Street					
Eastbound	AM	1945	2240	15%	0.92
	PM	1920	2040	-6%	0.89
Westbound	AM	810	1365	69%	0.92
	PM	1900	1970	4%	0.90
Main Street @ State Street					
Eastbound	AM	1225	1260	3%	0.96
	PM	1575	1560	-1%	0.93
Westbound	AM	1235	1250	1%	0.92
	PM	1635	1750	7%	0.91
Exchange Boulevard					
Northbound	AM	1465	1905	30%	0.91
	PM	2020	2370	17%	0.93
Southbound	AM	2095	1810	-14%	0.91
	PM	1835	1590	-13%	0.95
W. Broad Street					
Eastbound	AM	805	635	-21%	0.86
	PM	400	395	-1%	0.99
South Plymouth Avenue					
Northbound	AM	745	1375	85%	0.93
	PM	765	1380	80%	0.93
Southbound	AM	750	705	-6%	0.88
	PM	2660	2680	1%	0.84
St. Paul Street					
Southbound	AM	1790	1775	-1%	0.99
	PM	1915	1780	-7%	0.88
E. Broad Street					
Westbound	AM	2015	1120	-44%	0.90
	PM	2500	1700	-32%	0.90

Although the sensor data only shows trends in the traffic volumes, some conclusions can be drawn from the data presented. From the sensor data summary table, there are several locations that showed substantial increases. The Court Street AM peak westbound increase of 69% is attributable to the diverted traffic that typically would have used Broad Street to cross the river from east to west. The Court Street AM peak eastbound increase of 15% is attributable to the diverted traffic that typically would have used Broad Street to cross the river from west to east. These percentages are very close to the assumed diversion percentages from the Travel Demand Model.

Other substantial increases include northbound Exchange Boulevard in the AM and PM peaks (30% and 17%, respectively) and Plymouth Avenue northbound for both the AM and PM peaks (85% and 80%, respectively). Main Street volumes increased slightly showing that some traffic used Main Street instead of Court Street.

Decreases in traffic were found for Broad Street, southbound Exchange Boulevard, and St. Paul Street. Besides the obvious diversion from Broad Street, the southbound Exchange decrease may have been due to people choosing other access to I-490 eastbound via the Inner Loop, Boys Club Place on-ramp or the Plymouth Avenue on-ramp. Similarly for St. Paul Street traffic diversions could use the Inner Loop or Andrews Street to cross the river.

Trial Closure Summary and Conclusions

During the trial bridge closure, general traffic observations were made and concluded that the overall operations of the study area appeared to flow well during the AM peak hour but with congestion problems during the PM peak as described below..

The largest area of concern was along Court Street between South Avenue and Exchange Street. Given that Court Street has only one lane in each direction, there was insufficient capacity to handle the volume during a 30-45 minute timeframe with a 15-20 minute peak of the evening peak hour due to the increased volumes or traffic interruptions by the Dinosaur BBQ restaurant by buses and vehicles at the driveway. This caused congestion not only at the intersections of Court Street & South Avenue and Court Street & Exchange Street, but also delays at Exchange Boulevard & Broad Street, and South Avenue & Broad Street. This congestion was expected, as essentially two westbound and two eastbound lanes across the river were removed.

Main Street did not pick up a substantial amount of additional volume during this trial probably due to turn restrictions at State Street and Clinton Avenue and the designated bus lanes reducing through traffic to one lane in each direction.

Based on these observations and conclusions, and with the mitigation proposed later in this report, the bridge closure is feasible and can be accomplished with satisfactory levels of service at all intersections and no movements with a Level of Service less than an 'E'.

OVERALL CORRIDOR PLAN BUILDOUT TRIP GENERATION

In addition to analyzing the impact on the transportation system from potentially removing the Broad Street Bridge, the Master Plan calls for infill development to occur as a result of the public infrastructure improvements. The resulting trips are calculated and incorporated into the traffic analysis in this section.

The most commonly used source of trip generation information is the Institute of Transportation Engineers' (ITE) Report Trip Generation, 8th Edition. The ITE Trip Generation Report contains vehicle trip data for many types of developments, including "Hotels". The trip generation rates documented by the ITE are expressed as the number of vehicles generated per 1,000 square feet of gross floor

building area for the retail and office developments, rooms for the hotel, and dwelling units for the residential.

For the purpose of this study, the future development phases are proposed to occur in two stages. By 2014, the Broad Street construction phases are expected to be complete and 35% of the private development is expected to be constructed. Referenced as Scenario 2, the trips generated for this stage of development are derived from the trips generated for the entire development in Scenario 3. As such, the full build out is introduced first to introduce the development in its entirety.

Traffic generated by the development proposed was estimated using the ITE Trip Generation published rates. The overall, proposed development with unadjusted generated trips is shown in Figure 3.10.

Figure 3.10
FULL BUILDOUT UNADJUSTED TRAFFIC GENERATION (2025)

DEVELOPMENT TYPE	CUMULATIVE SIZE OF DEVELOPMENT	LAND USE CODES	AM PEAK HOUR INBOUND TRIPS	AM PEAK HOUR OUTBOUND TRIPS	PM PEAK HOUR INBOUND TRIPS	PM PEAK HOUR OUTBOUND TRIPS
Retail	129,800 SF	820 Gen. Commercial	112	71	357	387
Civic & Commercial Office	74,100 SF	710 General Office	145	20	40	200
Hotel	200 Rooms	310 Hotel	68	44	63	55
Residential	488 Units	230 Condominiums	31	153	148	73
Total Proposed Development			356	288	608	715

SCENARIO 3 – 2025 FULL BUILD ADJUSTED TRAFFIC VOLUMES & DISTRIBUTION

Many of the trips to proposed development in the study area would be drawn from the existing traffic stream passing by the site by vehicle or on foot. These vehicles, referred to as “pass-by trips”, represent intermediate stops at the site on the way to another trip destination. In an urban setting there are more opportunities for traveling around the downtown area by other modes of travel including transit, bicycle, and walking.

Also, due to the convenience oriented nature of this type of retail development, the planned retail areas typically cater to people who are already traveling within the downtown area. The retail space is intended to be at street level within the residential buildings and are planned to be dispersed throughout the project area. As such, a majority of trips generated are expected to be people already living and working downtown. Trip generation credits were applied to the trip generation to account for these factors. A 60% “pass-by” credit was applied to the retail generation rate and a 20% “other mode” credit was applied to the residential and office traffic. This rate was used for both the weekday morning and weekday evening peak hours. The revised overall rates are shown in Figure 3.11.

Figure 3.11						
ADJUSTED FULL BUILDOUT TRAFFIC GENERATION (2025)						
DEVELOPMENT TYPE	CUMULATIVE SIZE OF DEVELOPMENT	LAND USE CODES	AM PEAK HOUR INBOUND TRIPS	AM PEAK HOUR OUTBOUND TRIPS	PM PEAK HOUR INBOUND TRIPS	PM PEAK HOUR OUTBOUND TRIPS
Retail (60% pass-by traffic)	129,800 SF	820 Gen. Commercial	45	28	143	155
Civic & Commercial Office (20% Other modes)	74,100 SF	710 General Office	116	16	32	160
Hotel	200 Rooms	310 Hotel	68	44	63	55
Residential (20% Other modes)	488 Units	230 Condominiums	25	122	118	58
Total Proposed Development			254	210	356	428

These adjusted trips (scenario 3) were distributed onto the network based on the location of parking ramps and lots to serve the proposed developments. **Figure 4-3A** and **Figure 4-3B** show the 100% full build volumes for the Scenario 3 traffic on the network for the AM and PM peak hours, respectively. Figures showing the redistributed traffic and the diverted traffic for the AM and PM peak hours are included in Appendix D.

SCENARIO 2 – 2014 (35% BUILD) TRAFFIC VOLUMES & DISTRIBUTION

The next component of the proposed traffic volumes is the portion of the traffic generated by the planned Master Plan full development (2025) that might occur by 2014.

The trip projections for the proposed development, categorized by primary (new) and pass-by trips, are summarized below in **Table IV-5**. Refer to **Appendix D** for trip generation calculations. The projected traffic for the proposed new development was distributed to the adjacent roadway system by taking into consideration the surrounding parking areas, existing traffic patterns, and logical routing patterns.

These adjusted trips (scenario 2) were distributed onto the network. Scenario 2 assumes that development occurs mostly within the area of the Phase 1 and 2 improvements.

Figure 3.12						
SCENARIO 2 - 2014 TRAFFIC GENERATION (35% OF FULL DEVELOPMENT 2025)						
DEVELOPMENT TYPE	CUMULATIVE SIZE OF DEVELOPMENT	LAND USE CODES	AM PEAK HOUR INBOUND TRIPS	AM PEAK HOUR OUTBOUND TRIPS	PM PEAK HOUR INBOUND TRIPS	PM PEAK HOUR OUTBOUND TRIPS
Scenario 2 – East of Fitzhugh Street						
Retail	63,900 SF	820 Gen. Commercial	22	14	70	76
Residential	416 Units	230 Condominiums	21	104	101	49
<i>Total Scenario 2 Trips</i>			43	118	171	125

Figure 3.12 shows the 35% build volume for the Scenario 2 traffic on the network for the AM and PM peak hours, respectively. Figures showing the redistributed traffic and the diverted traffic for the AM and PM peak hours are included in Appendix D.

MASTER PLAN STREET IMPROVEMENT EFFECTS ON PARKING

The proposed master plan creates a vision for a mixed-use live work district which promotes private development of some of the existing surface parking lots located in the study area. Each new development would need to be self supported with regard to parking needs, and this could be achieved through the construction of a private parking ramp at the core of each development block that is wrapped with mixed-use buildings. These parking ramps could be “overbuilt” in order to absorb some of the displaced parking caused by the development. Based on market research projections for development yields with the district, new ramp garages would provide a combined total of 1,735 spaces (1,410 for adjacent developments and 325 additional spaces for public use that is displaced). The master plan also calls for a public garage to be built on the west side of Plymouth Avenue along I-490 that would further absorb displaced parking should existing surface lots be developed. The City of Rochester is in the process of completing a Downtown Circulator Study which could result in a shuttle between parking facilities throughout downtown to large hubs within the downtown district.

The closure of the two Broad Street sections; between Exchange Boulevard and South Avenue and between Main Street and Washington Street; will result in a loss of 107 on street parking spaces, which means that 68% of the on-street parking in the study area will be retained (231 out of the 338 existing spaces). However, street improvements and off-street parking development for the overall district would provide a net increase of 328 parking spaces at full build-out.

3.10.4 Mitigation

The proposed public realm improvements included several modifications to the existing Broad Street corridor between South Avenue and West Main Street such as removing the Broad Street Bridge road deck in order to restore the historic aqueduct, converting Broad Street to a boulevard with one lane in each direction and adjacent parking from Exchange Boulevard to Washington Street, and closing the section of Broad Street between Washington Street and West Main Street for the construction of a large water basin that recalls the former Erie Canal. In order to mitigate the intersections that would have a Level of Service of E or F under the scenarios studied, the following physical improvements are proposed:

SCENARIO 1 MITIGATION (Bridge Closure)

Remove existing on-street parking along the north side of the Court Street Bridge, and restripe Court Street between Exchange Boulevard and South Avenue to provide; one lane westbound with two westbound lanes on the west end of the section and two eastbound lanes with parking on the south side transitioning to three eastbound lanes on the east end of the section.

At the intersection of Court Street with South Avenue, modify the westbound approach lane geometry from a left/through and through, to an exclusive left and one through lane.

On Exchange Boulevard between Broad Street and Court Street, restripe the inside southbound lane as a left only and then the curb lane would be the through lane. The northbound left turn lane would

be extended towards Court Street providing side-by-side turn lanes to increase storage capacity for these two left turn movements.

SCENARIO 2 MITIGATION (35% Development)

On Main Street at Washington Street and Plymouth Ave, restripe Main Street between the I-490 overpass and Fitzhugh Street to provide opposing left turns on Main Street (a five lane section) and remove parking from the south side of the street. In addition, at the intersection of Main Street with Plymouth Avenue, modify the traffic signal operation to provide a protected/permitted left turn phase for each approach.

On Main Street from Exchange Boulevard/State Street to East Avenue, maintain the current four lane section with the removal of the exclusive bus lanes. This is necessary to support Phase 3, when the section of Broad Street between Washington Street and West Main Street is closed to vehicular traffic.

On Exchange Boulevard at Broad Street, modify the traffic signal operation to provide a protected/permitted northbound left turn phase.

Optimization of traffic signals timings are recommended where necessary.

SCENARIO 3 MITIGATION (Full Development)

At the intersection of Main Street with Plymouth Avenue, add a right-turn at the westbound approach.

Reverse the direction of Troup Street between South Fitzhugh Street and South Plymouth from one-way eastbound to one-way westbound. Construct an additional connection for westbound traffic on Troup street between Exchange Boulevard and Plymouth Avenue, which is currently one-way eastbound in this section. This connection will provide alternative access for the Court/Exchange area to I-490 eastbound from the Plymouth Avenue on-ramp, without crossing the river via Court Street. Modify the Plymouth/Troup signal to add westbound heads and loops.

Optimization of traffic signals timings will be needed to adjust for revised geometries and traffic patterns.

Parking

The changes in on-street parking within the study area for this project would be a net loss of 130 spaces, a loss of 107 within the Broad Street corridor, a loss of 24 in the Main Street corridor and a net gain of one space in the Court Street corridor. Loss of parking may be mitigated through the renovation of the remaining segment of the Broad Street tunnel for use as an underground parking facility. Conceptual parking layouts for the tunnel, which would remain intact between Exchange Boulevard west to the area where I-490 parallels Broad Street, indicates the potential accommodation of approximately 283 parking spaces.

3.12 AIR QUALITY

3.12.1 Existing Conditions

Air quality in and around the project area is generally good, as monitored by the NYS Department of Environmental Conservation (NYSDEC) air quality monitoring station in the City of Rochester. Since the Canal District encompasses an urban environment, approximately 25 percent of the Center City, there are a number of factors present that can affect air quality such as dust, dirt, and emissions. Vehicle exhaust, venting emissions from buildings, and dust from construction/demolition projects are all commonplace.

3.12.2 No Build Conditions

Under the no build condition, there is no impact to air quality.

3.12.3 Potential Impacts

No significant adverse impacts are anticipated with regard to air quality as part of formation of the Canal District. Adoption of the area does not approve any specific development projects, but rather is intended to be a guide for future development that may take place. Recommended infill development is comprised of mixed-use buildings and covered parking structures, and any increase in emissions would likely be linked to potential increase in traffic.

The planned public realm improves would temporarily generate dust and vehicle emissions associated with construction/demolition projects. Demolition of the roadway deck of the Broad Street Bridge will be necessary for restoration of the aqueduct structure. Construction of the surface treatments along the corridor will be done in phases, therefore, limiting the overall impact to air quality.

3.12.4 Mitigation

During the demolition and construction phases dust generation can be mitigated through the spraying of construction debris with water in order to keep airborne dust to a minimum. This impact to air is expected to be temporary, and will be mitigated to the extent possible.

4. CONSTRUCTION IMPACTS

Any construction occurring within the public right-of-way will be administered through the City of Rochester department of environmental services. Work related to the public realm enhancements will be coordinated with the various utility agencies, and all traffic mitigation measures will be subject to approval by the Monroe County Department of Transportation.

The closure of the broad street bridge to vehicular traffic as part of phase 1 of the public realm improvements will only occur once mitigation measures on Exchange Boulevard and Court Street have been completed. The addition of dedicated turning lanes on these streets, as outlined in section 3.11.4 of this document, will mitigate impacts to circulation caused by closure of the bridge, and allow traffic to operate at acceptable levels-of-service during the construction process.

Phase 2 construction, during which time broad street between exchange boulevard and Washington street is converted into a boulevard style street with a central median, will likely need to remain in operation during construction in order to minimize disruption to vehicles accessing adjacent buildings. This may be achieved by administering construction of the streetscape in two stages, northern half and southern half, so that traffic may continue to operate, and minimize impacts during construction.

Phase 3 of the public realm improvements will permanently close Broad Street to traffic between Washington Street and West Main Street, however, by this phase, all traffic mitigation measures will be in place.

As stated in section 3.13.4 of this document, impacts to air quality during construction will be mitigated by wetting down debris during removal in order to keep airborne particles, such as dust, to a minimum. Contractors will be instructed to limit construction activities to daylight hours as outlined in the City of Rochester Zoning Code, and that water or dust suppression liquids must be administered.

Pedestrian access along Broad Street may be limited during each phase of construction. Sidewalk access will be closed east of the Blue Cross Arena and Thomson Reuters headquarters at 50 West Broad Street to South Avenue during the construction of Phase 1. Access to the main entrance of Thomson Reuters will be maintained except for a period when demolition of the existing bridge ramp and construction of a stair access will be necessary. Access to the Blue Cross Arena will be maintained at the corner of Broad Street and Exchange Boulevard throughout the duration of construction. Pedestrian access along the remainder of the corridor may be temporarily limited during streetscape construction.

This action is the adoption of an amendment to the City's Comprehensive Plan that will establish Rochester's Historic Canal District, and the recommendations of the Master Plan. It does not approve the construction of any private project on properties adjacent to the public realm improvements. Each private development that occurs within the district will be subject to the requirements of the Center City Code and the City's process of approvals for new construction and/or building renovations.

5. UNAVOIDABLE ADVERSE IMPACTS

The most substantial unavoidable adverse impact that will result as part of the planned public realm improvements is removal of the Broad Street Bridge to vehicular traffic. In order to restore the Erie Canal Aqueduct, which is planned to be the centerpiece of the proposed Canal District, the Broad Street Bridge must be decommissioned as a vehicular bridge. As outlined in section 3.11.4 of this document, area streets including Court Street, Main Street, and Exchange Boulevard will incorporate mitigation measures, such as designated turning lanes, in order to accommodate increased traffic that the bridge closure will cause. Some on-street parking will also be displaced through removal of the bridge deck, and also for construction of the west end basin between Washington Street and West Main Street. This impact would be mitigated through conversion of the remaining segment of tunnel under Broad Street for use as an underground parking facility.

Some utilities will require relocation when the Broad Street Bridge road deck is removed as part of the aqueduct restoration. Sufficient space will exist for these utilities to be buried alongside the water table of the aqueduct beneath the pedestrian promenades on either side.

The public realm improvements will require a maintenance program to ensure the vibrancy and longevity of the district upgrades. The investment along the right-of-way is anticipated to incentivize private development in the district, which will help offset those costs, and the public investments will take place over time which will allow a period for private development to occur.

6. IRREVERSABLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

As part of the overall recommendations for the public realm improvements, there are several occurrences of irreversible and irretrievable commitment of resources. Much of the existing surface material along the corridor would be removed and replaced as part of the public improvements, however, this is typical of street projects of this magnitude.

The most significant resource planned for removal is the road deck of the Broad Street Bridge, the upper supports of which are comprised of cast-in-place concrete white stone veneer applied to the outside, river facing arched walls. Recommendations include repurposing the stone veneer for use as paving, or some other application within Phase 1.

7. POTENTIAL GROWTH-INDUCING ASPECTS

The underutilization of the southwest quadrant of downtown, and the desire for ongoing investment in the Center City make the study area an ideal place for growth to occur. The US Census Bureau indicates that the population of the City of Rochester peaked in the year 1950 with 332,488 City residents. Since that time, the City's population has been in decline, and the recent 2010 census data shows the City population currently at 210,565. A loss of over 100,000 inhabitants has left many City neighborhoods economically depressed and underutilized, therefore, the notion that the project will create growth as a result of its implementation is looked on as a positive outcome. The population of the Center City has continued to grow despite a loss in population city wide, which supports the notion that there is a growing interest into downtown living.

Given that the proposed Canal District will encompass approximately 25 percent of the Center City, it is very appropriate that a dense, urban land use, occur throughout that area. As previously discussed, the district is pock marked by surface parking lots on blocks that were once occupied by buildings built to the street edge which helped to defined the urban feel of downtown. By implementing significant improvements to the public realm, the proposed project creates the potential for infill development along its edge, especially on the surface parking lots west of Plymouth Avenue. A major goal of the project is to attract the interest of private developers to this area of downtown which has started to see investment recently via the headquarters for Nothnagle, and other redevelopment projects.

The induction of growth is not looked upon as a potential negative impact of this project, but rather is looked upon as a successful outcome to the project.

8. PROJECT IMPACTS ON ENERGY USE AND SOLID WASTE MANAGEMENT

The proposed action has no significant impact on energy use or solid waste management.

The project will require additional electric in order to operate fountains that are planned along the corridor, and the project may also include increased lighting than the standard street lights that are currently in place on Broad Street. Additional electricity needs are anticipated to be kept at a minimum, and will be funded via a maintenance allocated by the City of Rochester. The water that will be used to fill the historic aqueduct will be pulled from the Genesee River, and then returned to the river through use of a gravity system that incorporates the water pulled from the river by the Johnson and Seymour Raceway. That water currently returns to the river at the sun-basements of the Rundel Memorial Library and RG&E Substation 6. Sufficient water is available to allow for those facilities to receive water as they currently do, and also allow for watering of the aqueduct. The system can be considered “green” as it does not require circulation pumps, but rather makes use of a gravity return. It is also important to note that the City of Rochester is currently investigating the potential to locate hydrokinetic turbines in the raceway channel as a means of generating “clean energy” that could possible serve operation in the vicinity, such as building façade lighting, etc.

Disposal of waste along the corridor will be consistent with current practices along the existing streetscape. With regard to debris generated during demolition, some of the concrete to be removed may be able to be crushed and reutilized on-site as fill material. The stone veneer which exists in the outer wall of the bridge deck supports will be re-used on-site in some fashion.

9. ALTERNATIVES

This section describes the preferred alternative (the proposed action), and discusses alternatives to the proposed action which were analyzed during the design process. The State Environmental Quality Review Act (SEQRA) and its implementing regulations require the consideration of project alternatives, which are formulated in response to potential impacts of the proposed project. As required by SEQRA, a range of reasonable alternatives to the proposed action that are feasible given the objectives and capabilities of the Project sponsor. The following alternatives were analyzed:

1. No Action in which the project area remains unchanged.
2. A 'boulevard' option which maintains the current use of the Broad Street Corridor as a traffic carrying street.
3. A 'full re-watering' option which recreates a full working canal along the Broad Street corridor similar to the original Erie Canal.
4. A 'hybrid' option which combines elements from the boulevard and full re-watering options by allowing traffic to continue to use strategic blocks in the middle of the corridor, and re-waters other portions of the corridor as representations of the original canal.

Common Threads

The three "build" alternatives have common threads which include:

- Recognition of the Historic Erie Canal path and Aqueduct
- Integration with the Rochester Heritage Trail
- Integration of similar land uses and densities as determined by the market study
- Creation of a new walkable district that is connected to the surrounding area
- Creation of pedestrian friendly streetscape
- Creation of a more prominent public realm including a series of gardens & fountains
- Creation of a memorable experience fostering return visits
- Creation of an educational experience
- Creation of a series of precincts within an overall framework
- Using water as a unifying element which celebrates the historic Erie Canal

The recommendations of each stakeholder group contributed to a consensus vision for the Master Plan for the Historic Erie Canal Aqueduct and the Broad Street Corridor. The resulting planning recommendations represent the collaboration of diversified interests and the combination of the dreams of the community with detailed physical planning grounded in economic forecasts. The consensus plan is based upon economic relationships between the creation of public infrastructure improvements to catalyze private development to fulfill the market demand.

The mission of the Broad Street Corridor Study is to provide direction for future urban design and development decisions for the district in relation to the City of Rochester. It would be impossible to predict all of the specific development scenarios and exciting opportunities that may present themselves. Therefore, the final recommendations are intended as a guideline for evaluating choices and making judgments. The primary decisions will include public open space improvements and appropriate land use and private development densities. This master plan is a blueprint for creating a new vibrant downtown neighborhood known as the Canal District.

9.1 No Action

The No Action Alternative presents future conditions if the proposed project is not built. It assumes that the project area continues to be governed by the existing City of Rochester Comprehensive plan for this area. There are no thematic elements introduced through the creation of a "Canal District",

and no projects that the city is working toward funding to spur economic development in this area. As a future baseline for the comparison of impacts, this condition is compared to the future condition with the proposed project. In general, the No Action Alternative would avoid those impacts identified for the proposed project, but it would also forgo the substantial benefits of the project such as improving the aesthetic condition of the corridor, creating public open space, and serving as a catalyst for private development on adjacent parcels.

9.2 Boulevard

The boulevard option maintains the existing roadway infrastructure. Broad Street and the Erie Canal Aqueduct are enhanced primarily through streetscape improvements. The major streetscape improvement is a watered median and series of fountains stretching the length of Broad Street and the Aqueduct structure. A large water basin will culminate the linear public realm on the western end of the site area.

The aqueduct roadway is proposed to be reduced from two lanes to one in each direction with curb side parking allowing traffic flow through Broad Street and the Aqueduct structure to remain in tact. On the western end, Broad Street would be rerouted to connect to the Corn Hill and Susan B. Anthony neighborhoods under I-490.



Figure 9.1
Boulevard

9.3 Full Re-watering

The full re-watering option celebrates the rebirth of the Erie Canal. The path of the Erie Canal is reconstructed throughout the length of Broad Street and the Historic Erie Canal Aqueduct. The Aqueduct structure is restored to its 1842 configuration by removing the 1925 addition and reestablishing the canal channel. A significant urban plaza is formed at the eastern end of the aqueduct that connects the Main and Clinton District to the Genesee River and the new Canal District. A large water basin will culminate the linear public realm and connect to the Susan B.

Anthony District. Destination retail will be developed along the western edge of the water basin and bridge the land use development across I-490.



Figure 9.2
Full Re-Watering

9.4 Hybrid (Preferred Alternative)

The preferred alternative is a hybrid of the first two options. Three distinct land use precincts: the Residential Zone, Commercial Zone, and Aqueduct Zone, comprise the new Canal District. Removing additions to the original structure, the Aqueduct is re-watered and all vehicular traffic is removed. Broad Street is reconfigured to lessen vehicular traffic and encourage better pedestrian activity along a newly fountained boulevard. A new water basin is created at the westernmost end. The middle zone of Broad Street from Washington Street to Exchange Boulevard remains open to vehicles, but with the widening of the median changes from two lanes each way to one lane in either direction. This option removes Broad Street as a vehicular thoroughfare while maintaining a connective framework of roads within the district. The rerouted traffic and lessen traffic load improves vehicular movement, creates a pedestrian friendly public realm and accommodates future growth. The hybrid option was considered by most stakeholders to be the best choice.



Figure 9.3
Preferred Alternative